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Department of Defense Fiscal Year (FY) 2022 Budget Estimates

May 2021



Army

Justification Book Volume 1 of 1

Procurement of Ammunition, Army

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Army • Budget Estimates FY 2022 • Procurement

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Cost Statement

The following Justification Books were prepared at a cost of \$472,560: Aircraft (ACFT), Missile (MSLS), Weapons & Tracked Combat Vehicles (WTCV), Ammunition (AMMO), Other Procurement Army (OPA) 1 - Tactical & Support Vehicles, Other Procurement Army (OPA) 2 – Communications & Electronics, Other Procurement Army (OPA) 3 & 4 - Other Support Equipment & Spares, Research, Development, Test and Evaluation (RDTE) for: Budget Activity 1, Budget Activity 2, Budget Activity 3, Budget Activity 4, Budget Activity 5A, Budget Activity 5B, Budget Activity 5C, Budget Activity 6, Budget Activity 7, and Budget Activity 8.

PROCUREMENT OF AMMUNITION, ARMY

Appropriation Language

For construction, procurement, production, modification, and modernization of ammunition, and accessories therefore; specialized equipment and training devices; expansion of public and private plants, including ammunition facilities, authorized by Sec 2854 of Title 10, United States Code, and land necessary therefore, for the foregoing purposes, and such lands and interest therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes, \$2,158,110,000 in fiscal year 2022 to remain available for obligation until September 30, 2024.

The FY 2022 Overseas Contingency Operations accounted for in the base budget are as follows:

Direct war costs accounted for in the Base Budget: \$71,157,000: Direct War costs are those combat or direct combat support costs that will continue to be expended once combat operations end at major contingency locations.

Enduring costs accounted for in the Base Budget: \$24,664,000: Enduring Requirements are enduring in theater and in CONUS costs that will likely remain after combat operations cease, and have previously been funded in OCO.

FY2021 includes Division C, Title IX and Division J, Title IV of the Consolidated Appropriations Act, 2021 (P.L. 116-260).

FY2020 includes Division A, Title IX and X of the Consolidated Appropriations Act, 2020 (P.L. 116-93), Division F, Title IV and V from the Further Consolidated Appropriations Act, 2020 (P.L. 116-94) and the Coronavirus Aid, Relief, and Economic Security Act (P.L. 116-136).

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Department of the Army
FY 2022 President's Budget
Exhibit P-1 FY 2022 President's Budget
Total Obligational Authority
(Dollars in Thousands)

03 May 2021

| Appropriation | FY 2020 Total | FY 2021 Total | FY 2022 Total |
|---------------------------------|------------------|------------------|------------------|
| Procurement of Ammunition, Army | 2,727,257 | 2,894,015 | 2,158,110 |
| Total Department of the Army | 2,727,257 | 2,894,015 | 2,158,110 |

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Department of the Army
FY 2022 President's Budget
Exhibit P-1 FY 2022 President's Budget
Total Obligational Authority
(Dollars in Thousands)

03 May 2021

Appropriation: Procurement of Ammunition, Army

| Budget Activity ----- | FY 2020 Total ----- | FY 2021 Total ----- | FY 2022 Total ----- |
|--|---------------------------|---------------------------|---------------------------|
| 01. Ammunition | 2,046,401 | 2,018,330 | 1,477,402 |
| 02. Ammunition Production Base Support | 680,856 | 875,685 | 680,708 |
| Total Procurement of Ammunition, Army | 2,727,257 | 2,894,015 | 2,158,110 |

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Department of the Army
 FY 2022 President's Budget
 Exhibit P-1 FY 2022 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

03 May 2021

Appropriation: 2034A Procurement of Ammunition, Army

| Line No | Item Nomenclature | Ident Code | FY 2020 Total | | FY 2021 Total | | FY 2022 Total | | S e c |
|--------------------------------|---|------------|---------------|---------|---------------|---------|---------------|---------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| Budget Activity 01: Ammunition | | | | | | | | | |
| ----- | | | | | | | | | |
| Small/Medium Cal Ammunition | | | | | | | | | |
| 1 | CTG, 5.56MM, All Types | A | | 63,860 | | 63,970 | | 47,490 | U |
| 2 | CTG, 7.62MM, All Types | A | | 112,043 | | 103,343 | | 74,870 | U |
| 3 | NEXT GENERATION SQUAD WEAPON AMMUNITION | A | | | | 11,988 | | 76,794 | U |
| 4 | CTG, Handgun, All Types | A | | 17,824 | | 870 | | 7,812 | U |
| 5 | CTG, .50 Cal, All Types | A | | 63,049 | | 58,116 | | 29,716 | U |
| 6 | CTG, 20mm, All Types | A | | 27,432 | | 31,708 | | 4,371 | U |
| 7 | CTG, 25mm, All Types | A | | 8,990 | | 9,111 | | | U |
| 8 | CTG, 30mm, All Types | A | | 90,236 | | 80,796 | | 34,511 | U |
| 9 | CTG, 40mm, All Types | A | | 103,952 | | 109,934 | | 35,231 | U |
| Mortar Ammunition | | | | | | | | | |
| 10 | 60MM Mortar, All Types | | | 49,580 | | 31,222 | | 23,219 | U |
| 11 | 81MM Mortar, All Types | | | 61,873 | | 42,857 | | 52,135 | U |
| 12 | 120MM Mortar, All Types | A | | 123,110 | | 117,762 | | 104,144 | U |
| Tank Ammunition | | | | | | | | | |
| 13 | Cartridges, Tank, 105MM And 120MM, All Types | A | | 121,659 | | 231,955 | | 224,503 | U |
| Artillery Ammunition | | | | | | | | | |
| 14 | Artillery Cartridges, 75MM & 105MM, All Types | A | | 44,675 | | 35,963 | | 26,709 | U |
| 15 | ARTILLERY PROJECTILE, 155MM, All Types | | | 256,035 | | 306,292 | | 174,015 | U |
| 16 | Proj 155mm Extended Range M982 | A | 905 | 92,079 | 605 | 76,832 | 350 | 73,498 | U |

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Department of the Army
 FY 2022 President's Budget
 Exhibit P-1 FY 2022 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

03 May 2021

Appropriation: 2034A Procurement of Ammunition, Army

| Line No | Item Nomenclature | Ident Code | FY 2020 Total | | FY 2021 Total | | FY 2022 Total | | S e c |
|---------|---|------------|---------------|---------|---------------|---------|---------------|---------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| 17 | Artillery Propellants, Fuzes and Primers, All Mines | A | | 271,993 | | 247,012 | | 150,873 | U |
| 18 | Mines & Clearing Charges, All Types | | | 39,239 | | 48,966 | | 25,980 | U |
| 19 | Close Terrain Shaping Obstacle | A | | | | 4,995 | | 34,761 | U |
| 20 | Shoulder Launched Munitions, All Types | A | | 67,705 | | 69,288 | | 24,408 | U |
| 21 | Rocket, Hydra 70, All Types | A | | 250,453 | | 159,795 | | 109,536 | U |
| 22 | CAD/PAD, All Types | A | | 7,595 | | 8,891 | | 6,549 | U |
| 23 | Demolition Munitions, All Types | A | | 51,651 | | 54,043 | | 27,904 | U |
| 24 | Grenades, All Types | A | | 46,282 | | 32,931 | | 37,437 | U |
| 25 | Signals, All Types | A | | 18,609 | | 27,036 | | 7,530 | U |
| 26 | Simulators, All Types | A | | 16,054 | | 10,253 | | 8,350 | U |
| 27 | REACTIVE ARMOR TILES | A | | | | | | 17,755 | U |
| 28 | Ammo Components, All Types | A | | 2,661 | | 3,476 | | 2,784 | U |
| 29 | Items Less Than \$5 Million (AMMO) | A | | 9,224 | | 10,580 | | 17,797 | U |
| 30 | Ammunition Peculiar Equipment | A | | 10,044 | | 12,338 | | 12,290 | U |
| 31 | First Destination Transportation (AMMO) | A | | 18,492 | | 15,908 | | 4,331 | U |
| 32 | Closeout Liabilities | | | | | 99 | | 99 | U |

P-122BAS: FY 2022 President's Budget (Total Base Published Version), as of May 3, 2021 at 10:16:43

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Department of the Army
 FY 2022 President's Budget
 Exhibit P-1 FY 2022 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

03 May 2021

Appropriation: 2034A Procurement of Ammunition, Army

| Line No | Item Nomenclature | Ident Code | FY 2020 Total | | FY 2021 Total | | FY 2022 Total | | S e c |
|--|---|------------|---------------|-----------|---------------|-----------|---------------|-----------|-------|
| | | | Quantity | Cost | Quantity | Cost | Quantity | Cost | |
| 33 | CLOSED ACCOUNT ADJUSTMENTS | | | 2 | | | | | U |
| Total Ammunition | | | | 2,046,401 | | 2,018,330 | | 1,477,402 | |
| Budget Activity 02: Ammunition Production Base Support | | | | | | | | | |
| Production Base Support | | | | | | | | | |
| 34 | Industrial Facilities | | | 474,511 | | 684,224 | | 538,120 | U |
| 35 | Conventional Munitions Demilitarization | | | 202,512 | | 188,092 | | 139,410 | U |
| 36 | ARMS Initiative | | | 3,833 | | 3,369 | | 3,178 | U |
| Total Ammunition Production Base Support | | | | 680,856 | | 875,685 | | 680,708 | |
| Total Procurement of Ammunition, Army | | | | 2,727,257 | | 2,894,015 | | 2,158,110 | |

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Appropriation 2034A: Procurement of Ammunition, Army

| Line # | BA | BSA | Line Item Number | Line Item Title | Page |
|--------|----|-----|------------------|--|----------------|
| 1 | 01 | 30 | 0132E00700 | CTG, 5.56MM, All Types..... | Volume 1 - 1 |
| 2 | 01 | 30 | 0612E02000 | CTG, 7.62MM, All Types..... | Volume 1 - 35 |
| 3 | 01 | 30 | 1065E06001 | NEXT GENERATION SQUAD WEAPON AMMUNITION..... | Volume 1 - 63 |
| 4 | 01 | 30 | 1450EA3000 | CTG, Handgun, All Types..... | Volume 1 - 75 |
| 5 | 01 | 30 | 1722E08000 | CTG, .50 Cal, All Types..... | Volume 1 - 86 |
| 6 | 01 | 30 | 2382E08900 | CTG, 20mm, All Types..... | Volume 1 - 103 |
| 7 | 01 | 30 | 2650E08200 | CTG, 25mm, All Types..... | Volume 1 - 104 |
| 8 | 01 | 30 | 2938ER8120 | CTG, 30mm, All Types..... | Volume 1 - 105 |
| 9 | 01 | 30 | 3222ER8001 | CTG, 40mm, All Types..... | Volume 1 - 127 |
| 10 | 01 | 33 | 0050E89600 | 60MM Mortar, All Types..... | Volume 1 - 153 |
| 11 | 01 | 33 | 3584E76000 | 81MM Mortar, All Types..... | Volume 1 - 171 |
| 12 | 01 | 33 | 6780E25500 | 120MM Mortar, All Types..... | Volume 1 - 196 |
| 13 | 01 | 35 | 1120E22203 | Cartridges, Tank, 105MM And 120MM, All Types..... | Volume 1 - 234 |
| 14 | 01 | 37 | 0530E15101 | Artillery Cartridges, 75MM & 105MM, All Types..... | Volume 1 - 266 |
| 15 | 01 | 37 | 3102E89500 | ARTILLERY PROJECTILE, 155MM, All Types..... | Volume 1 - 278 |
| 16 | 01 | 37 | 6600E80100 | Proj 155mm Extended Range M982..... | Volume 1 - 317 |

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Appropriation 2034A: Procurement of Ammunition, Army

| Line # | BA | BSA | Line Item Number | Line Item Title | Page |
|--------|----|-----|------------------|--|----------------|
| 17 | 01 | 37 | 8750E27501 | Artillery Propellants, Fuzes and Primers, All..... | Volume 1 - 326 |
| 18 | 01 | 43 | 0442EA0800 | Mines & Clearing Charges, All Types..... | Volume 1 - 374 |
| 19 | 01 | 43 | 0612E76740 | Close Terrain Shaping Obstacle..... | Volume 1 - 392 |
| 20 | 01 | 45 | 2348EA4000 | Shoulder Launched Munitions, All Types..... | Volume 1 - 402 |
| 21 | 01 | 45 | 3246E37300 | Rocket, Hydra 70, All Types..... | Volume 1 - 424 |
| 22 | 01 | 47 | 2420E61000 | CAD/PAD, All Types..... | Volume 1 - 440 |
| 23 | 01 | 47 | 2790E55400 | Demolition Munitions, All Types..... | Volume 1 - 447 |
| 24 | 01 | 47 | 4582E34000 | Grenades, All Types..... | Volume 1 - 477 |
| 25 | 01 | 47 | 6038E46900 | Signals, All Types..... | Volume 1 - 511 |
| 26 | 01 | 47 | 8278E51200 | Simulators, All Types..... | Volume 1 - 523 |
| 27 | 01 | 47 | 9847E97900 | REACTIVE ARMOR TILES..... | Volume 1 - 532 |
| 28 | 01 | 50 | 0684EB0016 | Ammo Components, All Types..... | Volume 1 - 535 |
| 29 | 01 | 50 | 2624EA0055 | Items Less Than \$5 Million (AMMO)..... | Volume 1 - 536 |
| 30 | 01 | 50 | 4370EA0575 | Ammunition Peculiar Equipment..... | Volume 1 - 548 |
| 31 | 01 | 50 | 4758EA0550 | First Destination Transportation (AMMO)..... | Volume 1 - 552 |
| 32 | 01 | 50 | 9615EA8500 | Closeout Liabilities..... | Volume 1 - 553 |
| 33 | 01 | 50 | 9900EA0004 | CLOSED ACCOUNT ADJUSTMENTS..... | Volume 1 - 554 |

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Appropriation 2034A: Procurement of Ammunition, Army

| Line # | BA | BSA | Line Item Number | Line Item Title | Page |
|---------------|-----------|------------|-------------------------|--|----------------|
| 34 | 02 | 10 | 0572EP1000 | Industrial Facilities..... | Volume 1 - 555 |
| 35 | 02 | 10 | 4099EP1700 | Conventional Munitions Demilitarization..... | Volume 1 - 619 |
| 36 | 02 | 10 | 4150EP2500 | ARMS Initiative..... | Volume 1 - 627 |

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Line Item Table of Contents (Alphabetically by Line Item Title)

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|---|-------------------------|---------------|-----------|------------|----------------|
| 120MM Mortar, All Types | 6780E25500 | 12 | 01 | 33..... | Volume 1 - 196 |
| 60MM Mortar, All Types | 0050E89600 | 10 | 01 | 33..... | Volume 1 - 153 |
| 81MM Mortar, All Types | 3584E76000 | 11 | 01 | 33..... | Volume 1 - 171 |
| ARMS Initiative | 4150EP2500 | 36 | 02 | 10..... | Volume 1 - 627 |
| ARTILLERY PROJECTILE, 155MM, All Types | 3102E89500 | 15 | 01 | 37..... | Volume 1 - 278 |
| Ammo Components, All Types | 0684EB0016 | 28 | 01 | 50..... | Volume 1 - 535 |
| Ammunition Peculiar Equipment | 4370EA0575 | 30 | 01 | 50..... | Volume 1 - 548 |
| Artillery Cartridges, 75MM & 105MM, All Types | 0530E15101 | 14 | 01 | 37..... | Volume 1 - 266 |
| Artillery Propellants, Fuzes and Primers, All | 8750E27501 | 17 | 01 | 37..... | Volume 1 - 326 |
| CAD/PAD, All Types | 2420E61000 | 22 | 01 | 47..... | Volume 1 - 440 |
| CLOSED ACCOUNT ADJUSTMENTS | 9900EA0004 | 33 | 01 | 50..... | Volume 1 - 554 |
| CTG, .50 Cal, All Types | 1722E08000 | 5 | 01 | 30..... | Volume 1 - 86 |
| CTG, 20mm, All Types | 2382E08900 | 6 | 01 | 30..... | Volume 1 - 103 |
| CTG, 25mm, All Types | 2650E08200 | 7 | 01 | 30..... | Volume 1 - 104 |
| CTG, 30mm, All Types | 2938ER8120 | 8 | 01 | 30..... | Volume 1 - 105 |
| CTG, 40mm, All Types | 3222ER8001 | 9 | 01 | 30..... | Volume 1 - 127 |
| CTG, 5.56MM, All Types | 0132E00700 | 1 | 01 | 30..... | Volume 1 - 1 |

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| Line Item Title | Line Item Number | Line # | BA | BSA | Page |
|--|------------------|--------|----|---------|----------------|
| CTG, 7.62MM, All Types | 0612E02000 | 2 | 01 | 30..... | Volume 1 - 35 |
| CTG, Handgun, All Types | 1450EA3000 | 4 | 01 | 30..... | Volume 1 - 75 |
| Cartridges, Tank, 105MM And 120MM, All Types | 1120E22203 | 13 | 01 | 35..... | Volume 1 - 234 |
| Close Terrain Shaping Obstacle | 0612E76740 | 19 | 01 | 43..... | Volume 1 - 392 |
| Closeout Liabilities | 9615EA8500 | 32 | 01 | 50..... | Volume 1 - 553 |
| Conventional Munitions Demilitarization | 4099EP1700 | 35 | 02 | 10..... | Volume 1 - 619 |
| Demolition Munitions, All Types | 2790E55400 | 23 | 01 | 47..... | Volume 1 - 447 |
| First Destination Transportation (AMMO) | 4758EA0550 | 31 | 01 | 50..... | Volume 1 - 552 |
| Grenades, All Types | 4582E34000 | 24 | 01 | 47..... | Volume 1 - 477 |
| Industrial Facilities | 0572EP1000 | 34 | 02 | 10..... | Volume 1 - 555 |
| Items Less Than \$5 Million (AMMO) | 2624EA0055 | 29 | 01 | 50..... | Volume 1 - 536 |
| Mines & Clearing Charges, All Types | 0442EA0800 | 18 | 01 | 43..... | Volume 1 - 374 |
| NEXT GENERATION SQUAD WEAPON AMMUNITION | 1065E06001 | 3 | 01 | 30..... | Volume 1 - 63 |
| Proj 155mm Extended Range M982 | 6600E80100 | 16 | 01 | 37..... | Volume 1 - 317 |
| REACTIVE ARMOR TILES | 9847E97900 | 27 | 01 | 47..... | Volume 1 - 532 |
| Rocket, Hydra 70, All Types | 3246E37300 | 21 | 01 | 45..... | Volume 1 - 424 |
| Shoulder Launched Munitions, All Types | 2348EA4000 | 20 | 01 | 45..... | Volume 1 - 402 |
| Signals, All Types | 6038E46900 | 25 | 01 | 47..... | Volume 1 - 511 |
| Simulators, All Types | 8278E51200 | 26 | 01 | 47..... | Volume 1 - 523 |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/
 Medium Cal Ammunition **P-1 Line Item Number / Title:**
 0132E00700 / CTG, 5.56MM, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|------------------|---------------|---------------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 1,935.575 | 63.860 | 63.970 | 47.490 | - | 47.490 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 1,935.575 | 63.860 | 63.970 | 47.490 | - | 47.490 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 1,935.575 | 63.860 | 63.970 | 47.490 | - | 47.490 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes 5.56MM ALL TYPES.

(E00901) The M199A1, 5.56mm Dummy Drill & Inert ammunition (DDI) is an inert (no energetic) dummy cartridge used as an ammunition training aid and for weapon familiarization. The M199A1 DDI ammunition is both nickel plated and fluted for easy recognition and to distinguish the dummy ammunition visually from tactical ammunition. This item is Code A, approved for service use.

(E01100) 5.56mm, M200 Blank Cartridge consists of a brass cartridge case with primer and propellant sealed with a rosette crimp. This cartridge is used for training and ceremonial purposes without blank firing attachment (BFA) and in M16A2/A4 Series Rifles and M4 Carbine fitted with BFA. This item is Code A, approved for service use.

(E01101) 5.56mm Blank M200 Linked cartridge consists of a brass cartridge case with primer and propellant sealed with a rosette crimp. This cartridge is used in the M249 Squad Automatic Weapon (SAW) Machine Gun with a Blank Firing Adapter, and it is designed to simulate firing during training exercises. The M27 metallic link is merely a scaled-down version of the 7.62mm M13 one-piece link. This item is Code A, approved for service use.

(E04607) 5.56mm M855A1 Ball Cartridges and M856A1 Tracer Cartridges are linked in a 4-Ball/1-Tracer configuration with the M27 link for use in the M249 Machine Gun. The M855A1 Ball Cartridge has a steel penetrator and non-lead slug surrounded by a copper jacket. The M856A1 Tracer Cartridge is lead free and provides a visible red light signature through its trajectory. The M856A1 Tracer Cartridge provides visible signature of fire out to 900 meters. This item is Code A, approved for service use.

(E04608) 5.56mm M856A1 Tracer Bullet is lead free and provides a visible red light signature through its trajectory. The bullet is used in M16 and M4 Rifles/Carbines. This item is Code A, approved for service use.

(E95200) 5.56mm, M855A1 Ball Cartridge is linked with the M27 link for use in the M249 Machine Gun. The M855A1 Ball Cartridge has a steel penetrator and non-lead slug surrounded by a copper jacket. This item is Code A, approved for service use.

(E95400) 5.56mm, M855A1 Ball Cartridge has a steel penetrator and lead free slug surrounded by a copper jacket. The cartridge is used in M16A2/A4 Rifles and M4/M4A1 Carbines. This cartridge is packed in 10 round clips with bandoleers in standard military can pack. This item is Code A, approved for service use.

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| | | |
|---|---|---|
| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |

(E95700) 5.56mm, M855A1 Ball Cartridge has a steel penetrator and lead free slug surrounded by a copper jacket. The cartridge is used in M16A2/A4 Rifles and M4/M4A1 Carbines. This cartridge is packed in 10 round clips without bandoleer in standard military can pack. This item is Code A, approved for service use.

(E96110) 5.56mm, Marking Blue, M1042 is used for force-on-force training engagements. The cartridge can be fired with the existing M4 Carbine and M16A2/A3/A4 Rifles with the use of a conversion bolt. The projectile leaves a mark upon impact (similar to paintball), thus enabling after action evaluation of training scenarios. However, it differs from paintball in that it is a full, complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. This item is Code A, approved for service use.

(E96111) 5.56mm Marking Red, M1042 is used for force-on-force training engagements. The cartridge can be fired with the existing M4 Carbine and the M16A2/A3/A4 Rifles with the use of a conversion bolt. The projectile leaves a mark upon impact (similar to paintball), thus enabling after action evaluation of training scenarios. However, it differs from paintball in that it is a full, complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. This item is Code A, approved for service use.

(E96120) 5.56mm, Marking Blue, M1071 is used for force-on-force training engagements. The cartridge can be fired with the existing M249 Squad Automatic Weapon with the use of the conversion kit. The projectile leaves a mark upon impact (similar to paintball), thus enabling after action evaluation of training scenarios. However, it differs from paintball in that it is a full, complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. In FY 2021, this item will transition to a lead free version under the new DODIC AC42. This item is Code A, approved for service use.

(E96121) 5.56mm, Marking Red, M1071 is used for force-on-force training engagements. The cartridge can be fired with the existing M249 Squad Automatic Weapon with the use of the conversion kit. The projectile leaves a mark upon impact (similar to paintball), thus enabling after action evaluation of training scenarios. However, it differs from paintball in that it is a full, complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. This item is Code A, approved for service use.

(E96125) 5.56mm Short Range Training M1037 clipped cartridge will be used in live fire training scenarios. The M1037 clipped cartridge permits training in adjacent training areas due to its reduced Surface Danger Zone (SDZ) and can be fired with existing M4 weapons. This cartridge is used for Military Operations/Urban Terrain (MOUT) operational training. This item is Code A, approved for service use.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/
Medium Cal Ammunition **P-1 Line Item Number / Title:**
0132E00700 / CTG, 5.56MM, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E00901 / CTG, 5.56mm Single Round (NPF DDI), M199A1 [AB46] | | A | | - / 0.524 | - / - | - / 0.029 | - / - | - / - | - / - |
| P-5 | E01100 / CTG, 5.56mm Blank, M200, Single Round [A080] | P-5a | A | | - / 540.227 | - / 12.400 | - / 8.515 | - / 2.615 | - / - | - / 2.615 |
| P-5 | E01101 / CTG, 5.56mm Blank, M200 Linked f/SAW [A075] | P-5a, P-21 | A | | - / 214.682 | - / 5.822 | - / 5.940 | - / 6.412 | - / - | - / 6.412 |
| P-5 | E04607 / CTG, 5.56mm 4 Ball EPR, M855A1 /1 TR M856A1 Linked [AB73] | P-5a | A | | - / 72.680 | - / 8.912 | - / 4.632 | - / 3.303 | - / - | - / 3.303 |
| P-5 | E04608 / CTG, 5.56mm Tracer, M856A1 Single Round [AB74] | | A | | - / 9.782 | - / - | - / 0.869 | - / 0.466 | - / - | - / 0.466 |
| P-5 | E95200 / CTG, 5.56mm EPR Ball, M855A1 w/M27 Link f/SAW [AB56] | | A | | - / 31.431 | - / - | - / 0.510 | - / 1.221 | - / - | - / 1.221 |
| P-5 | E95400 / CTG, 5.56mm Ball, M855A1 EPR, Clipped Mil Pack [AB57] | P-5a, P-21 | A | | - / 826.993 | - / 11.237 | - / 6.479 | - / 8.606 | - / - | - / 8.606 |
| P-5 | E95700 / CTG, 5.56mm Ball, M855A1 Clipped Bulk Pack [AB77] | P-5a, P-21 | A | | - / 184.985 | - / 20.239 | - / 30.144 | - / 20.575 | - / - | - / 20.575 |
| P-5 | E96110 / CTG, 5.56mm Marking, M1042 (Blue) [AC39] | | A | | - / 25.254 | - / - | - / 1.725 | - / 1.261 | - / - | - / 1.261 |
| P-5 | E96111 / CTG, 5.56mm Marking, M1042 (Red) [AC40] | | A | | - / 12.835 | - / 1.270 | - / 1.268 | - / 0.645 | - / - | - / 0.645 |
| P-5 | E96120 / CTG, 5.56mm Marking, M1071 (Blue) Linked f/SAW [AC42] | | A | | - / 5.174 | - / 0.707 | - / 0.806 | - / 0.049 | - / - | - / 0.049 |
| P-5 | E96121 / CTG, 5.56mm Marking, M1071 (Red) Linked f/SAW [AC43] | | A | | - / 4.677 | - / 0.512 | - / 0.239 | - / - | - / - | - / - |
| P-5 | E96125 / Ctg, 5.56mm, Short Range Training, M1037, sngl rd [AB67] | | A | | - / 6.331 | - / 2.761 | - / 2.814 | - / 2.337 | - / - | - / 2.337 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 1,935.575 | - / 63.860 | - / 63.970 | - / 47.490 | - / - | - / 47.490 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$47.097 million supports the procurement of 93.854 million cartridges.

FY 2022 Base dollars in the amount of \$0.393 million support the Enduring COCOM requirement for procurement of 0.482 million 5.56mm M855A1 and M856A1 cartridges to deter potential adversaries and support the European Deterrence Initiative.

(E00901) 5.56mm, Single Cartridge (DDI), M199A1 is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with Army's procurement goals. Type Classification date: 2008

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(E01100) 5.56mm, M200 Blank Cartridge is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$2.615 million support the procurement of 8.158 million M200 Blank Cartridges. Type classification date: prior to 1977</p> <p>(E01101) 5.56mm, M200 Blank Linked F/SAW is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$6.412 million support the procurement of 15.431 million M200 Blank Linked Cartridges. Type classification date: prior to 1977</p> <p>(E04607) 5.56mm M855A1 Ball and M856A1 Tracer Cartridges are training standard items used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$3.172 million support the procurement of 4.457 million M855A1 Ball and M856A1 Tracer Cartridges. FY 2022 Base dollars in the amount of \$0.132 million support the enduring COCOM requirement for procurement of 0.184 million M855A1 Ball and M856A1 Tracer Cartridges to deter potential adversaries and support the European Deterrence Initiative. Type classification date: 1982</p> <p>(E04608) 5.56mm M856A1 Tracer Bullet is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$0.206 million support the procurement of 0.236 million M856A1 Tracer cartridges. FY 2022 Base dollars in the amount of \$0.261 million support the enduring COCOM requirement for procurement of 0.298 million M856A1 Tracer Bullets to deter potential adversaries and support the European Deterrence Initiative. Type classification date: 1982</p> <p>(E95200) 5.56mm, M855A1 Ball Cartridge is linked with the M27 link and is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$1.221 million support the procurement of 2.027 million M855A1 Ball Cartridges linked with the M27 link. Type classification date: 1982</p> <p>(E95400) 5.56mm, M855A1 Ball Cartridge is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$8.606 million support the procurement of 16.653 million M855A1 Ball Cartridges. Type classification date: 1982</p> <p>(E95700) 5.56mm, M855A1 Ball Cartridge is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$20.575 million support the procurement of 43.088 million M855A1 Ball Cartridges. Type classification date: 1982</p> <p>(E96110) 5.56mm, Marking, M1042 Blue is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$1.261 million support the procurement of 1.322 million Marking Blue M1042 Cartridges. Type classification date: May 2009</p> <p>(E96111) 5.56mm Marking, M1042 Red is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$0.645 million support the procurement of 0.674 million of the Marking Red M1042 Cartridges. Type classification date: May 2009</p> <p>(E96120) 5.56mm, Marking Blue, M1071 is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$0.049 million support the procurement of 0.039 million of the Marking Blue M1071 Cartridges. Type classification date: May 2009</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |

(E96121) 5.56mm, Marking Red, M1071 is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goals. Type classification date: May 2009

(E96125) 5.56mm Short Range Training Ammunition (SRTA) M1037 clipped cartridges is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$2.337 million support the procurement of 1.769 million of the clipped SRTA M1037 Cartridges. Type classification date: July 2012

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E00901 / CTG, 5.56mm Single Round (NPF DDI), M199A1 [AB46] |

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|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|----------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 0.524 | - | 0.029 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 0.524 | - | 0.029 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 0.524 | - | 0.029 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | 0.508 | - | - | - | 0.88 | 32,954 | 0.029 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 0.508 | - | - | - | - | - | 0.029 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 0.508 | - | - | - | - | - | 0.029 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.016 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 0.016 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 0.524 | - | - | - | - | - | 0.029 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E01100 / CTG, 5.56mm Blank, M200, Single Round [A080] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|---------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 540.227 | 12.400 | 8.515 | 2.615 | - | 2.615 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 540.227 | 12.400 | 8.515 | 2.615 | - | 2.615 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 540.227 | 12.400 | 8.515 | 2.615 | - | 2.615 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round ^(†) | 26.46 | 19,284,942 | 510.280 | 0.20 | 55,505,483 | 11.101 | 0.23 | 32,647,663 | 7.509 | 0.24 | 8,158,101 | 1.958 | - | - | - | 0.24 | 8,158,101 | 1.958 |
| <i>Subtotal: Recurring Cost</i> | - | - | 510.280 | - | - | 11.101 | - | - | 7.509 | - | - | 1.958 | - | - | - | - | - | 1.958 |
| <i>Subtotal: Hardware Cost</i> | - | - | 510.280 | - | - | 11.101 | - | - | 7.509 | - | - | 1.958 | - | - | - | - | - | 1.958 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 29.910 | - | - | 1.290 | - | - | 0.998 | - | - | 0.648 | - | - | - | - | - | 0.648 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 29.910 | - | - | 1.290 | - | - | 0.998 | - | - | 0.648 | - | - | - | - | - | 0.648 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.037 | - | - | 0.009 | - | - | 0.008 | - | - | 0.009 | - | - | - | - | - | 0.009 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.037 | - | - | 0.009 | - | - | 0.008 | - | - | 0.009 | - | - | - | - | - | 0.009 |
| Gross/Weapon System Cost | - | - | 540.227 | - | - | 12.400 | - | - | 8.515 | - | - | 2.615 | - | - | - | - | - | 2.615 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|---|--------------------------------------|-------------------------|---------------|------------------------------|--|-------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | | | | Item Number / Title [DODIC]: E01100 / CTG, 5.56mm Blank, M200, Single Round [A080] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| Complete Round | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Mar 2021 | 55,505,483 | 0.20 | Y | | |
| Complete Round | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 27,750,514 | 0.23 | Y | | |
| Complete Round | | 2021 | OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 4,897,149 | 0.23 | Y | | |
| Complete Round | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Oct 2022 | 6,934,386 | 0.24 | Y | | |
| Complete Round | | 2022 | OLIN WINCHESTER LLC / OXFORD, MS | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Oct 2022 | 1,223,715 | 0.24 | Y | | |

Remarks:
FY 2021 and FY 2022 complete round is an average unit cost between two c ontractors. The quantity split will be determined between the two contra ctors in the year of execution.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E01101 / CTG, 5.56mm Blank, M200 Linked f/SAW [A075] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 214.682 | 5.822 | 5.940 | 6.412 | - | 6.412 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 214.682 | 5.822 | 5.940 | 6.412 | - | 6.412 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 214.682 | 5.822 | 5.940 | 6.412 | - | 6.412 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 0.22 | 971,785K | 213.793 | 0.32 | 15,883,496 | 5.083 | 0.37 | 14,892,370 | 5.510 | 0.38 | 15,431,030 | 5.864 | - | - | - | 0.38 | 15,431,030 | 5.864 |
| Subtotal: Recurring Cost | - | - | 213.793 | - | - | 5.083 | - | - | 5.510 | - | - | 5.864 | - | - | - | - | - | 5.864 |
| Subtotal: Hardware Cost | - | - | 213.793 | - | - | 5.083 | - | - | 5.510 | - | - | 5.864 | - | - | - | - | - | 5.864 |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Environmental Initiatives | - | - | - | - | - | 0.135 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Product Improvement Cost | - | - | - | - | - | 0.135 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.878 | - | - | 0.596 | - | - | 0.422 | - | - | 0.539 | - | - | - | - | - | 0.539 |
| Subtotal: Support - Production Engineering Cost | - | - | 0.878 | - | - | 0.596 | - | - | 0.422 | - | - | 0.539 | - | - | - | - | - | 0.539 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.011 | - | - | 0.008 | - | - | 0.008 | - | - | 0.009 | - | - | - | - | - | 0.009 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.011 | - | - | 0.008 | - | - | 0.008 | - | - | 0.009 | - | - | - | - | - | 0.009 |
| Gross/Weapon System Cost | - | - | 214.682 | - | - | 5.822 | - | - | 5.940 | - | - | 6.412 | - | - | - | - | - | 6.412 |

(†) indicates the presence of a P-5a

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|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | | | Item Number / Title [DODIC]: E01101 / CTG, 5.56mm Blank, M200 Linked f/SAW [A075] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND ^(†) | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Mar 2021 | 15,883,496 | 0.32 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2021 | 14,892,370 | 0.37 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Sep 2022 | 15,431,030 | 0.38 | Y | | |

^(†) indicates the presence of a P-21

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | | | | | Item Number / Title [DODIC]: E01101 / CTG, 5.56mm Blank, M200 Linked f/SAW [A075] | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | BALANCE | | | | | | | | |
|---|------------------|------|---------|-------------|--|------------------------------|--------------------|---|---|---|---|---|---|---|---|---|---|------------------|--------------------|---|---|---|---|---|---|---|---|---|-------|---------|-------|-------|-------|-------|-------|-------|--------|--------|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | | S | | | | | | | |
| | | | | | | | C | O | E | A | E | A | P | A | U | U | U | E | C | O | V | E | A | E | A | P | A | U | U | | U | E | | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 971785034 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 15.883 | .000 | 15.883 | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.324 | 1.324 | 1.324 | 1.324 | 1.324 | 1.324 | 1.324 | 1.324 | 6.618 | |
| 1 | 2021 | ARMY | 14.892 | .000 | 14.892 | | | | | | | | | | | | | | | | | | | | | | | | A | - | - | - | - | - | - | - | 1.241 | 13.651 |
| 1 | 2022 | ARMY | 15.431 | .000 | 15.431 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15.431 | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E01101 / CTG, 5.56mm Blank, M200 Linked f/SAW [A075] | | | | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | | B A L A N C E | | |
|---|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|--|---------------------------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|------|------|--------|-------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|--|------|------|
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 971785034 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 15.883 | 9.265 | 6.618 | 1.324 | 1.324 | 1.324 | 1.324 | 1.324 | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2021 | ARMY | 14.892 | 1.241 | 13.651 | 1.241 | 1.241 | 1.241 | 1.241 | 1.241 | 1.241 | 1.241 | 1.241 | 1.241 | 1.241 | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2022 | ARMY | 15.431 | .000 | 15.431 | | | | | | | | | | | A | - | - | - | - | - | | | | | | | | | | | | | .000 | |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types |
| | | Item Number / Title [DODIC]: E01101 / CTG, 5.56mm Blank, M200 Linked f/SAW [A075] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | OLIN WINCHESTER, LLC - LCAAP - INDEPENDENCE, MO | 1,600 | 14,100,000 | 48,700,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E04607 / CTG, 5.56mm 4 Ball EPR, M855A1 / 1 TR M856A1 Linked [AB73] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 72.680 | 8.912 | 4.632 | 3.303 | - | 3.303 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 72.680 | 8.912 | 4.632 | 3.303 | - | 3.303 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 72.680 | 8.912 | 4.632 | 3.303 | - | 3.303 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 0.33 | 214,382K | 70.023 | 0.55 | 14,703,922 | 8.087 | 0.62 | 6,840,146 | 4.241 | 0.63 | 4,641,020 | 2.924 | - | - | - | 0.63 | 4,641,020 | 2.924 |
| Subtotal: Recurring Cost | - | - | 70.103 | - | - | 8.087 | - | - | 4.241 | - | - | 2.924 | - | - | - | - | - | 2.924 |
| Subtotal: Hardware Cost | - | - | 70.103 | - | - | 8.087 | - | - | 4.241 | - | - | 2.924 | - | - | - | - | - | 2.924 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.617 | - | - | 0.822 | - | - | 0.389 | - | - | 0.375 | - | - | - | - | - | 0.375 |
| Subtotal: Support - Production Engineering Cost | - | - | 2.617 | - | - | 0.822 | - | - | 0.389 | - | - | 0.375 | - | - | - | - | - | 0.375 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.040 | - | - | 0.003 | - | - | 0.003 | - | - | 0.004 | - | - | - | - | - | 0.004 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.040 | - | - | 0.003 | - | - | 0.003 | - | - | 0.004 | - | - | - | - | - | 0.004 |
| Gross/Weapon System Cost | - | - | 72.680 | - | - | 8.912 | - | - | 4.632 | - | - | 3.303 | - | - | - | - | - | 3.303 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | | | Item Number / Title [DODIC]: E04607 / CTG, 5.56mm 4 Ball EPR, M855A1 / 1 TR M856A1 Linked [AB73] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Mar 2021 | 14,703,922 | 0.55 | Y | | |
| COMPLETE ROUND | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2021 | 6,840,146 | 0.62 | Y | | |
| COMPLETE ROUND | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Sep 2022 | 4,641,020 | 0.63 | Y | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E04608 / CTG, 5.56mm Tracer, M856A1 Single Round [AB74] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|--------------|----------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 9.782 | - | 0.869 | 0.466 | - | 0.466 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 9.782 | - | 0.869 | 0.466 | - | 0.466 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 9.782 | - | 0.869 | 0.466 | - | 0.466 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | - | - | 9.041 | - | - | - | 0.78 | 1,053,535 | 0.822 | 0.79 | 534,684 | 0.422 | - | - | - | 0.79 | 534,684 | 0.422 |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>9.041</i> | - | - | - | - | - | <i>0.822</i> | - | - | <i>0.422</i> | - | - | - | - | - | <i>0.422</i> |
| <i>Subtotal: Hardware Cost</i> | - | - | 9.041 | - | - | - | - | - | 0.822 | - | - | 0.422 | - | - | - | - | - | 0.422 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.741 | - | - | - | - | - | 0.047 | - | - | 0.040 | - | - | - | - | - | 0.040 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | <i>0.741</i> | - | - | - | - | - | <i>0.047</i> | - | - | <i>0.040</i> | - | - | - | - | - | <i>0.040</i> |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | - | - | - | - | - | - | 0.004 | - | - | - | - | - | 0.004 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | - | - | - | - | - | - | - | - | - | <i>0.004</i> | - | - | - | - | - | <i>0.004</i> |
| Gross/Weapon System Cost | - | - | 9.782 | - | - | - | - | - | 0.869 | - | - | 0.466 | - | - | - | - | - | 0.466 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | | Item Number / Title [DODIC]: E95200 / CTG, 5.56mm EPR Ball, M855A1 w/M27 Link f/SAW [AB56] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (<i>Units in Each</i>) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | | | 31.431 | - | 0.510 | 1.221 | - | 1.221 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | | | 31.431 | - | 0.510 | 1.221 | - | 1.221 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | | | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | | | 31.431 | - | 0.510 | 1.221 | - | 1.221 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 0.36 | 78,878,800 | 28.396 | - | - | - | 0.54 | 872,537 | 0.471 | 0.56 | 2,027,082 | 1.135 | - | - | - | 0.56 | 2,027,082 | 1.135 |
| <i>Subtotal: Recurring Cost</i> | - | - | 28.396 | - | - | - | - | - | 0.471 | - | - | 1.135 | - | - | - | - | - | 1.135 |
| <i>Subtotal: Hardware Cost</i> | - | - | 28.396 | - | - | - | - | - | 0.471 | - | - | 1.135 | - | - | - | - | - | 1.135 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 3.008 | - | - | - | - | - | 0.037 | - | - | 0.082 | - | - | - | - | - | 0.082 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 3.008 | - | - | - | - | - | 0.037 | - | - | 0.082 | - | - | - | - | - | 0.082 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.026 | - | - | - | - | - | 0.002 | - | - | 0.004 | - | - | - | - | - | 0.004 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.026 | - | - | - | - | - | 0.002 | - | - | 0.004 | - | - | - | - | - | 0.004 |
| Gross/Weapon System Cost | - | - | 31.431 | - | - | - | - | - | 0.510 | - | - | 1.221 | - | - | - | - | - | 1.221 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E95400 / CTG, 5.56mm Ball, M855A1 EPR, Clipped Mil Pack [AB57] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|----------------|---------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 826.993 | 11.237 | 6.479 | 8.606 | - | 8.606 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 826.993 | 11.237 | 6.479 | 8.606 | - | 8.606 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 826.993 | 11.237 | 6.479 | 8.606 | - | 8.606 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round(†) | 51.61 | 15,706,674 | 810.669 | 0.40 | 24,736,968 | 9.895 | 0.46 | 12,818,798 | 5.897 | 0.47 | 16,653,451 | 7.827 | - | - | - | 0.47 | 16,653,451 | 7.827 |
| Subtotal: Recurring Cost | - | - | 810.669 | - | - | 9.895 | - | - | 5.897 | - | - | 7.827 | - | - | - | - | - | 7.827 |
| Subtotal: Hardware Cost | - | - | 810.669 | - | - | 9.895 | - | - | 5.897 | - | - | 7.827 | - | - | - | - | - | 7.827 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.118 | - | - | 0.118 | - | - | 0.118 | - | - | 0.118 | - | - | - | - | - | 0.118 |
| Subtotal: Support - Acceptance Testing Cost | - | - | 0.118 | - | - | 0.118 | - | - | 0.118 | - | - | 0.118 | - | - | - | - | - | 0.118 |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Environmental Initiatives | - | - | 0.655 | - | - | 0.495 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Product Improvement Cost | - | - | 0.655 | - | - | 0.495 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 15.527 | - | - | 0.726 | - | - | 0.460 | - | - | 0.654 | - | - | - | - | - | 0.654 |
| Subtotal: Support - Production Engineering Cost | - | - | 15.527 | - | - | 0.726 | - | - | 0.460 | - | - | 0.654 | - | - | - | - | - | 0.654 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.024 | - | - | 0.004 | - | - | 0.006 | - | - | 0.007 | - | - | - | - | - | 0.007 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.024 | - | - | 0.004 | - | - | 0.006 | - | - | 0.007 | - | - | - | - | - | 0.007 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--------------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Gross/Weapon System Cost | - | - | 826.993 | - | - | 11.237 | - | - | 6.479 | - | - | 8.606 | - | - | - | - | - | 8.606 |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | | | Item Number / Title [DODIC]: E95400 / CTG, 5.56mm Ball, M855A1 EPR, Clipped Mil Pack [AB57] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| Complete Round ^(†) | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Mar 2021 | 22,263,271 | 0.40 | Y | | |
| Complete Round ^(†) | | 2020 | OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Mar 2021 | 2,473,697 | 0.40 | Y | | |
| Complete Round ^(†) | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 10,895,978 | 0.46 | Y | | |
| Complete Round ^(†) | | 2021 | OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 1,922,820 | 0.46 | Y | | |
| Complete Round ^(†) | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Jun 2022 | Oct 2022 | 7,563,140 | 0.47 | Y | | |
| Complete Round ^(†) | | 2022 | OLIN WINCHESTER, LLC / Oxford, MS | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Oct 2022 | 9,090,311 | 0.47 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
Complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | | | | | Item Number / Title [DODIC]: E95400 / CTG, 5.56mm Ball, M855A1 EPR, Clipped Mil Pack [AB57] | | | | | | | | | | | |

| Cost Elements <small>(Units in Millions, * = < 500)</small> | | | | Fiscal Year 2020 | | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | | BALANCE | | | |
|---|------------------|----|---------|------------------|--|------------------------------|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|-----|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|---------|--|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | |
| | | | | | | | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | | | | | |

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|----------------------------------|---|------|--------------|---------------|-------------|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------------|
| Complete Round | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 15706674 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 22.263 | .000 | 22.263 | | | | | | | | | | | | | | | | | | | | | | | 9.276 |
| | 2 | 2020 | ARMY | 2.474 | .000 | 2.474 | | | | | | | | | | | | | | | | | | | | | | | 1.031 |
| | 1 | 2021 | ARMY | 10.896 | .000 | 10.896 | | | | | | | | | | | | | | | | | | | | | | | 10.896 |
| | 2 | 2021 | AF (+) | .157 | .000 | .157 | | | | | | | | | | | | | | | | | | | | | | | .157 |
| | 2 | 2021 | ARMY | 1.923 | .000 | 1.923 | | | | | | | | | | | | | | | | | | | | | | | 1.923 |
| | 2 | 2021 | MC (+) | 1.565 | .000 | 1.565 | | | | | | | | | | | | | | | | | | | | | | | 1.565 |
| | 2 | 2021 | NAVSEA (+) | .457 | .000 | .457 | | | | | | | | | | | | | | | | | | | | | | | .457 |
| | 2 | 2021 | Total | 4.101 | .000 | 4.101 | | | | | | | | | | | | | | | | | | | | | | | 4.101 |
| | 1 | 2022 | AF (+) | .856 | .000 | .856 | | | | | | | | | | | | | | | | | | | | | | | .856 |
| | 1 | 2022 | ARMY | 7.563 | .000 | 7.563 | | | | | | | | | | | | | | | | | | | | | | | 7.563 |
| | 1 | 2022 | MC (+) | .856 | .000 | .856 | | | | | | | | | | | | | | | | | | | | | | | .856 |
| | 1 | 2022 | NAVSEA (+) | 2.582 | .000 | 2.582 | | | | | | | | | | | | | | | | | | | | | | | 2.582 |
| | 1 | 2022 | NSOF (+) | .604 | .000 | .604 | | | | | | | | | | | | | | | | | | | | | | | .604 |
| | 1 | 2022 | Total | 12.462 | .000 | 12.462 | | | | | | | | | | | | | | | | | | | | | | | 12.462 |
| | 3 | 2022 | ARMY | 9.090 | .000 | 9.090 | | | | | | | | | | | | | | | | | | | | | | | 9.090 |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E95400 / CTG, 5.56mm Ball, M855A1 EPR, Clipped Mil Pack [AB57] | | | | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | | B A L A N C E | | |
|---|------------------|----|---------|-------------|---|--|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|--|---------------------------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEP T P R I O R T O 1 O C T 2 0 2 1 | BAL D U E A S O F 1 O C T | Calendar Year 2022 | | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |

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|----------------------------------|------|--------------|---------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|------|
| Complete Round | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 15706674 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 22.263 | 12.987 | 9.276 | 1.855 | 1.855 | 1.855 | 1.855 | 1.855 | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2020 | ARMY | 2.474 | 1.443 | 1.031 | .206 | .206 | .206 | .206 | .206 | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2021 | ARMY | 10.896 | .000 | 10.896 | .908 | .908 | .908 | .908 | .908 | .908 | .908 | .908 | .908 | .908 | .908 | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2021 | AF (+) | .157 | .000 | .157 | - | - | - | - | - | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .013 | .000 |
| 2 | 2021 | ARMY | 1.923 | .000 | 1.923 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .160 | .000 | |
| 2 | 2021 | MC (+) | 1.565 | .000 | 1.565 | - | - | - | - | - | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .000 | |
| 2 | 2021 | NAVSEA (+) | .457 | .000 | .457 | - | - | - | - | - | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .038 | .000 | |
| 2 | 2021 | Total | 4.101 | .000 | 4.101 | .160 | .160 | .160 | .160 | .160 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .342 | .000 | |
| 1 | 2022 | AF (+) | .856 | .000 | .856 | | | | | | | | | A - | - | - | - | - | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .000 | | |
| 1 | 2022 | ARMY | 7.563 | .000 | 7.563 | | | | | | | | | A - | - | - | - | - | 1.180 | 1.180 | 1.180 | 1.180 | 1.180 | 1.180 | 1.180 | 1.180 | 1.180 | 1.180 | 1.180 | .485 | - | - | - | .000 | |
| 1 | 2022 | MC (+) | .856 | .000 | .856 | | | | | | | | | A - | - | - | - | - | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .071 | .000 | |
| 1 | 2022 | NAVSEA (+) | 2.582 | .000 | 2.582 | | | | | | | | | A - | - | - | - | - | .215 | .215 | .215 | .215 | .215 | .215 | .215 | .215 | .215 | .215 | .215 | .215 | .215 | .215 | .215 | .000 | |
| 1 | 2022 | NSOF (+) | .604 | .000 | .604 | | | | | | | | | A - | - | - | - | - | .050 | .050 | .050 | .050 | .050 | .050 | .050 | .050 | .050 | .050 | .050 | .050 | .050 | .050 | .050 | .000 | |
| 1 | 2022 | Total | 12.462 | .000 | 12.462 | | | | | | | | | | | | | | 1.588 | 1.588 | 1.588 | 1.588 | 1.588 | 1.588 | 1.588 | 1.588 | 1.588 | 1.588 | .894 | .408 | .408 | .408 | .408 | .000 | |
| 3 | 2022 | ARMY | 9.090 | .000 | 9.090 | | | | | | | | | | | | | | .758 | .758 | .758 | .758 | .758 | .758 | .758 | .758 | .758 | .758 | .758 | .758 | .758 | .758 | .758 | .000 | |
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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types |
| Item Number / Title [DODIC]: E95400 / CTG, 5.56mm Ball, M855A1 EPR, Clipped Mil Pack [AB57] | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | OLIN WINCHESTER, LLC - LCAAP - INDEPENDENCE, MO | 1,680 | 5,700,000 | 14,200,000 | 9 | 9 | 15 | 24 | 6 | 6 | 12 | 18 |
| 2 | OLIN CORP WINCHESTER DIVISION - EAST ALTON, IL | 1,680 | 5,700,000 | 14,200,000 | 9 | 9 | 15 | 24 | 6 | 6 | 12 | 18 |
| 3 | OLIN WINCHESTER, LLC - Oxford, MS | 1,680 | 5,700,000 | 14,200,000 | 9 | 9 | 15 | 24 | 6 | 6 | 12 | 18 |

(*) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule. "A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E95700 / CTG, 5.56mm Ball, M855A1 Clipped Bulk Pack [AB77] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|---------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 184.985 | 20.239 | 30.144 | 20.575 | - | 20.575 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 184.985 | 20.239 | 30.144 | 20.575 | - | 20.575 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 184.985 | 20.239 | 30.144 | 20.575 | - | 20.575 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 3.07 | 56,184,265 | 172.486 | 0.38 | 47,218,771 | 17.943 | 0.44 | 63,693,936 | 28.025 | 0.44 | 43,087,533 | 18.959 | - | - | - | 0.44 | 43,087,533 | 18.959 |
| Subtotal: Recurring Cost | - | - | 172.486 | - | - | 17.943 | - | - | 28.025 | - | - | 18.959 | - | - | - | - | - | 18.959 |
| Subtotal: Hardware Cost | - | - | 172.486 | - | - | 17.943 | - | - | 28.025 | - | - | 18.959 | - | - | - | - | - | 18.959 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.270 | - | - | 0.175 | - | - | - | - | - | 0.115 | - | - | - | - | - | 0.115 |
| Subtotal: Support - Acceptance Testing Cost | - | - | 0.270 | - | - | 0.175 | - | - | - | - | - | 0.115 | - | - | - | - | - | 0.115 |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Environmental Initiatives | - | - | 0.095 | - | - | 0.270 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Product Improvement Cost | - | - | 0.095 | - | - | 0.270 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 12.092 | - | - | 1.839 | - | - | 2.106 | - | - | 1.492 | - | - | - | - | - | 1.492 |
| Subtotal: Support - Production Engineering Cost | - | - | 12.092 | - | - | 1.839 | - | - | 2.106 | - | - | 1.492 | - | - | - | - | - | 1.492 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.043 | - | - | 0.012 | - | - | 0.012 | - | - | 0.009 | - | - | - | - | - | 0.009 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.043 | - | - | 0.012 | - | - | 0.012 | - | - | 0.009 | - | - | - | - | - | 0.009 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E95700 / CTG, 5.56mm Ball, M855A1 Clipped Bulk Pack [AB77] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--------------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Gross/Weapon System Cost | - | - | 184.985 | - | - | 20.239 | - | - | 30.144 | - | - | 20.575 | - | - | - | - | - | 20.575 |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | | | Item Number / Title [DODIC]: E95700 / CTG, 5.56mm Ball, M855A1 Clipped Bulk Pack [AB77] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND ^(†) | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Oct 2020 | 47,218,771 | 0.38 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 63,693,936 | 0.44 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Oct 2022 | 43,087,533 | 0.44 | Y | | |

^(†) indicates the presence of a P-21

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | Item Number / Title [DODIC]: E95700 / CTG, 5.56mm Ball, M855A1 Clipped Bulk Pack [AB77] |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | Fiscal Year 2020 | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | BALANCE | | | |
|---|-------|------|---------|----------|--------------------------------------|----------------------------------|--------------------|---|---|---|---|---|---|---|---|---|---|------------------|---|--------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|--------|--|
| OC | MFR # | FY | SERVICE | PROC QTY | ACCEP T T O 1 O C T 2 0 1 9 | BAL DUE A S O F 1 O C T | Calendar Year 2020 | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | |
| | | | | | | | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | | | | |
| | | | | | | | C | O | E | A | E | A | P | A | U | U | U | E | C | O | V | E | A | E | A | P | A | U | U | U | | E | P | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 56184265 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 47.219 | .000 | 47.219 | | | | | | | | A | - | - | - | - | - | - | - | 3.935 | 3.935 | 3.935 | 3.935 | 3.935 | 3.935 | 3.935 | 3.935 | 3.935 | 3.935 | 3.935 | .000 | |
| | 1 | 2021 | ARMY | 63.694 | .000 | 63.694 | | | | | | | | | | | | | | | | | | | | | | | | | | | 63.694 | |
| | 1 | 2022 | ARMY | 43.088 | .000 | 43.088 | | | | | | | | | | | | | | | | | | | | | | | | | | | 43.088 | |
| | | | | | | | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | | | | |
| | | | | | | | C | O | E | A | E | A | P | A | U | U | U | E | C | O | V | E | A | E | A | P | A | U | U | U | E | P | | |
| | | | | | | | T | V | C | N | B | R | R | Y | N | L | G | P | T | V | C | N | B | R | R | Y | N | L | G | P | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E95700 / CTG, 5.56mm Ball, M855A1 Clipped Bulk Pack [AB77] | | | | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | B A L A N C E | |
|---|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|-------|-------|---------------------------------|------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 56184265 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 47.219 | 47.219 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | 1 | 2021 | ARMY | 63.694 | .000 | 63.694 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | 5.308 | .000 | | |
| | 1 | 2022 | ARMY | 43.088 | .000 | 43.088 | | | | | | | A | - | - | - | - | - | - | 3.438 | 3.438 | 3.438 | 3.438 | 3.438 | 3.438 | 3.438 | 3.438 | 3.438 | 3.438 | 3.438 | 3.438 | 3.438 | 3.438 | 1.826 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types |
| | | Item Number / Title [DODIC]: E95700 / CTG, 5.56mm Ball, M855A1 Clipped Bulk Pack [AB77] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | OLIN WINCHESTER, LLC - LCAAP - INDEPENDENCE, MO | 900 | 19,400,000 | 67,500,000 | 6 | 6 | 12 | 18 | 6 | 6 | 7 | 13 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E96110 / CTG, 5.56mm Marking, M1042 (Blue) [AC39] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|----------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 25.254 | - | 1.725 | 1.261 | - | 1.261 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 25.254 | - | 1.725 | 1.261 | - | 1.261 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 25.254 | - | 1.725 | 1.261 | - | 1.261 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 0.71 | 32,053,125 | 22.758 | - | - | - | 0.88 | 1,860,942 | 1.638 | 0.90 | 1,321,729 | 1.190 | - | - | - | 0.90 | 1,321,729 | 1.190 |
| <i>Subtotal: Recurring Cost</i> | - | - | 22.758 | - | - | - | - | - | 1.638 | - | - | 1.190 | - | - | - | - | - | 1.190 |
| <i>Subtotal: Hardware Cost</i> | - | - | 22.758 | - | - | - | - | - | 1.638 | - | - | 1.190 | - | - | - | - | - | 1.190 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.496 | - | - | - | - | - | 0.087 | - | - | 0.071 | - | - | - | - | - | 0.071 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 2.496 | - | - | - | - | - | 0.087 | - | - | 0.071 | - | - | - | - | - | 0.071 |
| Gross/Weapon System Cost | - | - | 25.254 | - | - | - | - | - | 1.725 | - | - | 1.261 | - | - | - | - | - | 1.261 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E96111 / CTG, 5.56mm Marking, M1042 (Red) [AC40] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 12.835 | 1.270 | 1.268 | 0.645 | - | 0.645 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 12.835 | 1.270 | 1.268 | 0.645 | - | 0.645 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 12.835 | 1.270 | 1.268 | 0.645 | - | 0.645 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 0.70 | 17,242,932 | 12.103 | 0.67 | 1,785,837 | 1.197 | 0.88 | 1,367,918 | 1.204 | 0.90 | 674,173 | 0.607 | - | - | - | 0.90 | 674,173 | 0.607 |
| <i>Subtotal: Recurring Cost</i> | - | - | 12.105 | - | - | 1.197 | - | - | 1.204 | - | - | 0.607 | - | - | - | - | - | 0.607 |
| <i>Subtotal: Hardware Cost</i> | - | - | 12.105 | - | - | 1.197 | - | - | 1.204 | - | - | 0.607 | - | - | - | - | - | 0.607 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.732 | - | - | 0.073 | - | - | 0.064 | - | - | 0.038 | - | - | - | - | - | 0.038 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.732 | - | - | 0.073 | - | - | 0.064 | - | - | 0.038 | - | - | - | - | - | 0.038 |
| Gross/Weapon System Cost | - | - | 12.835 | - | - | 1.270 | - | - | 1.268 | - | - | 0.645 | - | - | - | - | - | 0.645 |

Remarks:
FY 2021 price increase is due to negotiated Economic Price Adjustment (EPA) and risk factor added for currency fluctuation.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types |
| | | Item Number / Title [DODIC]: E96120 / CTG, 5.56mm Marking, M1071 (Blue) Linked f/SAW [AC42] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | | |
|---|--|--|--------------|------------------------|--------------|--------------|-------------|---------------|
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 5.174 | 0.707 | 0.806 | 0.049 | - | 0.049 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 5.174 | 0.707 | 0.806 | 0.049 | - | 0.049 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 5.174 | 0.707 | 0.806 | 0.049 | - | 0.049 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 0.75 | 4,826,990 | 3.600 | 0.93 | 719,634 | 0.669 | 1.11 | 691,682 | 0.768 | 1.14 | 38,597 | 0.044 | - | - | - | 1.14 | 38,597 | 0.044 |
| <i>Subtotal: Recurring Cost</i> | - | - | 3.601 | - | - | 0.669 | - | - | 0.768 | - | - | 0.044 | - | - | - | - | - | 0.044 |
| <i>Subtotal: Hardware Cost</i> | - | - | 3.601 | - | - | 0.669 | - | - | 0.768 | - | - | 0.044 | - | - | - | - | - | 0.044 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.574 | - | - | 0.038 | - | - | 0.038 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 1.574 | - | - | 0.038 | - | - | 0.038 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| Gross/Weapon System Cost | - | - | 5.174 | - | - | 0.707 | - | - | 0.806 | - | - | 0.049 | - | - | - | - | - | 0.049 |

Remarks:
FY 2021 price increase is due changing procurement to lead free version and negotiated Economic Price Adjustment (EPA).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E96121 / CTG, 5.56mm Marking, M1071 (Red) Linked f/SAW [AC43] |

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| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|---|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 4.677 | 0.512 | 0.239 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 4.677 | 0.512 | 0.239 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 4.677 | 0.512 | 0.239 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | |
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 0.76 | 5,317,537 | 4.062 | 0.93 | 521,784 | 0.485 | 1.11 | 205,090 | 0.228 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 4.063 | - | - | 0.485 | - | - | 0.228 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 4.063 | - | - | 0.485 | - | - | 0.228 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.616 | - | - | 0.027 | - | - | 0.011 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.616 | - | - | 0.027 | - | - | 0.011 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 4.677 | - | - | 0.512 | - | - | 0.239 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0132E00700 / CTG, 5.56MM, All Types | Item Number / Title [DODIC]: E96125 / Ctg, 5.56mm, Short Range Training, M1037, snl rd [AB67] |

| | | | | | | | |
|---|--|--------------------|----------------|------------------------|---------------------|--------------------|----------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 6.331 | 2.761 | 2.814 | 2.337 | - | 2.337 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 6.331 | 2.761 | 2.814 | 2.337 | - | 2.337 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 6.331 | 2.761 | 2.814 | 2.337 | - | 2.337 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 1.04 | 5,536,463 | 5.739 | 0.98 | 2,676,851 | 2.623 | 1.22 | 2,195,346 | 2.678 | 1.26 | 1,769,072 | 2.229 | - | - | - | 1.26 | 1,769,072 | 2.229 |
| <i>Subtotal: Recurring Cost</i> | - | - | 5.741 | - | - | 2.623 | - | - | 2.678 | - | - | 2.229 | - | - | - | - | - | 2.229 |
| <i>Subtotal: Hardware Cost</i> | - | - | 5.741 | - | - | 2.623 | - | - | 2.678 | - | - | 2.229 | - | - | - | - | - | 2.229 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.592 | - | - | 0.138 | - | - | 0.136 | - | - | 0.108 | - | - | - | - | - | 0.108 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.592 | - | - | 0.138 | - | - | 0.136 | - | - | 0.108 | - | - | - | - | - | 0.108 |
| Gross/Weapon System Cost | - | - | 6.331 | - | - | 2.761 | - | - | 2.814 | - | - | 2.337 | - | - | - | - | - | 2.337 |

Remarks:
FY 2021 price increase is due to negotiated Economic Price Adjustment (EPA) and risk factor added for currency fluctuation.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/
Medium Cal Ammunition **P-1 Line Item Number / Title:**
0612E02000 / CTG, 7.62MM, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|----------------|----------------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 781.543 | 112.043 | 103.343 | 74.870 | - | 74.870 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 781.543 | 112.043 | 103.343 | 74.870 | - | 74.870 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 781.543 | 112.043 | 103.343 | 74.870 | - | 74.870 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes 7.62mm ALL TYPES.

(E01902) 7.62mm Blank, M82 w/M13 Link is linked in 100 round belts for training use in M240 family of machine weapons. The M82 is a blank cartridge (no projectile) designed to mimic the sound and function of combat ammunition with the use of a blank firing adaptor. It can be identified by its long neck and rosette crimped mouth. It is intended for training use only and not suitable for combat. This item is Code A, approved for service use.

(E02011) 7.62mm M80A1 Enhanced Performance Round (EPR) Ball is linked in a 100 cartridge belt with the M13 link for use in the M240 Machine Gun family of weapons. The M80A1 Ball Cartridge has a steel penetrator and non-lead slug surrounded by a copper jacket. They are intended for use against personnel and light-armored targets. This Item is Code A, approved for service use.

(E02012) 7.62mm M80A1 Enhanced Performance Round (EPR) Ball Cartridges and M62A1 Tracer Cartridges are linked in a 100 cartridge belt in a 4 Ball/1 Tracer configuration with the M13 link for use in the M240 Machine Gun family of weapons. The M80A1 Ball Cartridge has a steel penetrator and a non-lead slug surrounded by a copper jacket. The M62A1 Tracer Cartridge also contains a lead free projectile and provides a visible red light signature through its trajectory and is a ballistic match with the M80A1 trajectory. They are intended for use against personnel and light-armored targets. This Item is Code A, approved for service use.

(E02015) 7.62mm M82A1 Blank Bottleneck Cartridge has a bottleneck design with a paper wad closure and a red tip. The M82A1 is used in sniper training and salute ceremonies in M14 rifles without being equipped with a firing adapter. This Item is Code A, approved for service use.

(E02501) 7.62mm, Single Round (NPF DDI), M63A1 Dummy, Drilled and Inert ammunition (DDI) is an inert dummy cartridge used as an ammunition training aid and for weapon familiarization. The 7.62mm, M63A1 DDI ammunition is both nickel plated and fluted (NPF) for easy recognition and to distinguish the dummy ammunition visually from tactical ammunition. This Item is Code A, approved for service use.

(E89100) 7.62mm M118 Long Range cartridge is a match grade design intended for long range accuracy and is packed in a 20 cartridge cardboard carton and intended for Sniper use in the M40, M110, M110A1 and MK21 Rifles. It is intended for use against personnel and non-armored targets. This Item is Code A, approved for service use.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(F57510) 7.62mm M1158 Advanced Armor-Piercing (ADVAP) Ball Cartridges and M62A1 Tracer Cartridges are linked in a 100 cartridge belt in a 4 Ball/1 Tracer configuration with the M13 link for use in the M240 Machine Gun family of weapons. The M1158 Ball Cartridge uses projectiles with an exposed black metal tip surrounded by a copper jacket. The M62A1 Tracer Cartridge also contains a lead free projectile and provides a visible red light signature through its trajectory and is a ballistic match with the M1158 trajectory. This item is intended for use against a broad spectrum of hard targets. This Item is Code A, approved for service use.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types |

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E01902 / CTG, 7.62mm Blank, M82 w/M13 Link [A111] | P-5a, P-21 | A | | - / 362.741 | - / 6.499 | - / 8.060 | - / 7.731 | - / - | - / 7.731 |
| P-5 | E02011 / CTG, 7.62mm Ball M80A1 LeadFree, w/M13 Link [AB79] | P-5a | A | | - / 62.594 | - / 18.832 | - / 12.482 | - / 1.878 | - / - | - / 1.878 |
| P-5 | E02012 / CTG, 7.62mm 4 Ball M80A1/1 Trcr M62A1 LeadFree [AB86] | P-5a, P-21 | A | | - / 290.457 | - / 59.787 | - / 58.963 | - / 40.953 | - / - | - / 40.953 |
| P-5 | E02015 / CTG, 7.62mm Bottlenose Blank, M82A1, Single [AB72] | | A | | - / 2.011 | - / 0.492 | - / - | - / - | - / - | - / - |
| P-5 | E02501 / CTG, 7.62mm, Single Round (NPF DDI), M63A1 [AB47] | | A | | - / 1.030 | - / 0.040 | - / 0.040 | - / 0.075 | - / - | - / 0.075 |
| P-5 | E89100 / CTG, 7.62mm Special Ball, M118 Long Range [AA11] | | A | | - / 42.010 | - / 5.380 | - / 0.838 | - / 0.768 | - / - | - / 0.768 |
| P-5 | F57510 / CTG, 7.62mm Advanced Armor Piercing, XM1158 | P-5a, P-21 | A | | - / 20.700 | - / 21.013 | - / 22.960 | - / 23.465 | - / - | - / 23.465 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 781.543 | - / 112.043 | - / 103.343 | - / 74.870 | - / - | - / 74.870 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$74.830 million supports the procurement of 54.805 million cartridges. The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or Foreign Military Sales (FMS) to increase procurement of 7.62MM ALL TYPES when possible.

FY 2022 Base dollars in the amount of \$0.040 million support the enduring COCOM requirement for procurement of 0.036 million CTG, 7.62mm, Single Round (NPF DDI), M63A1 to deter potential adversaries and support the European Deterrence Initiative.

(E01902) 7.62mm Blank, M82 w/M13 Link is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. The FY 2022 Base procurement dollars in the amount of \$7.731 million supports the procurement of 12.477 million Blank M82 cartridges.
 Type classification date: 1960

(E02011) 7.62mm M80A1 Enhanced Performance Round (EPR) Lead Free Slug (LFS) Ball Cartridge is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2022 Base procurement dollars in the amount of \$1.878 million supports the procurement of 1.916 million 7.62mm M80A1 1 Ball (EPR) (LFS) Cartridges.
 Type classification date: 1962

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(E02012) 7.62mm M80A1 Enhanced Performance Round (EPR) 4 Ball /1 Trace, Lead Free Slug (LFS) Cartridge /M62A1 LFS Tracer Cartridge is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2022 Base procurement dollars in the amount of \$40.953 million supports the procurement of 38.182 million 7.62mm M80A1 4 Ball/1Trace (EPR) (LFS) Cartridges. In FY 2022, funding in the amount of \$0.450 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments. Type classification date: 1962</p> <p>(E02015) 7.62mm M82A1 Blank Bottlenose Cartridge is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goals. Type classification date: 2012</p> <p>(E02501) 7.62mm Single Round (NPF DDI) M63A1 Round is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. The FY 2022 Base procurement dollars in the amount of \$0.035 million support the procurement of 0.031 million M63A1 7.62mm Single Cartridges. The FY 2022 Base procurement dollars in the amount of \$0.040 million support the enduring COCOM requirement for procurement of 0.036 million M63A1 7.62mm Single Cartridges to deter potential adversaries and support the European Deterrence Initiative. Type classification date: 1982</p> <p>(E89100) 7.62mm M118 Long Range Round is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2022 Base procurement dollars in the amount of \$0.768 million supports the procurement of .707 million 7.62mm M118 Long Range Cartridges. Type classification date: Prior to 1997</p> <p>(F57510) 7.62mm M1158 Advanced Armor-Piercing (ADVAP) Ball Cartridges and M62A1 Tracer Cartridges are linked in a 100 cartridge belt in a 4 Ball/1 Tracer configuration with the M13 link. This is a war reserve item used in combat. The FY 2022 request builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2022 Base procurement in the amount of \$23.465 million supports the procurement of 1.456 million 7.62mm M1158 Advanced Armor-Piercing (ADVAP) Ball Cartridges 4Ball/1 M62A1 Tracer linked Cartridges. Type classification date: 4th Quarter 2020</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | Item Number / Title [DODIC]: E01902 / CTG, 7.62mm Blank, M82 w/ M13 Link [A111] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 362.741 | 6.499 | 8.060 | 7.731 | - | 7.731 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 362.741 | 6.499 | 8.060 | 7.731 | - | 7.731 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 362.741 | 6.499 | 8.060 | 7.731 | - | 7.731 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 0.40 | 903,063K | 360.322 | 0.41 | 13,795,460 | 5.656 | 0.53 | 13,388,000 | 7.089 | 0.54 | 12,476,630 | 6.737 | - | - | - | 0.54 | 12,476,630 | 6.737 |
| Subtotal: Recurring Cost | - | - | 360.322 | - | - | 5.656 | - | - | 7.089 | - | - | 6.737 | - | - | - | - | - | 6.737 |
| Subtotal: Hardware Cost | - | - | 360.322 | - | - | 5.656 | - | - | 7.089 | - | - | 6.737 | - | - | - | - | - | 6.737 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.389 | - | - | 0.831 | - | - | 0.963 | - | - | 0.985 | - | - | - | - | - | 0.985 |
| Subtotal: Support - Production Engineering Cost | - | - | 2.389 | - | - | 0.831 | - | - | 0.963 | - | - | 0.985 | - | - | - | - | - | 0.985 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.012 | - | - | 0.011 | - | - | 0.008 | - | - | 0.009 | - | - | - | - | - | 0.009 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.012 | - | - | 0.011 | - | - | 0.008 | - | - | 0.009 | - | - | - | - | - | 0.009 |
| Gross/Weapon System Cost | - | - | 362.741 | - | - | 6.499 | - | - | 8.060 | - | - | 7.731 | - | - | - | - | - | 7.731 |

Remarks:

The price difference from FY 2020 through FY 2021 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021.

^(†) indicates the presence of a P-5a

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|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | Item Number / Title [DODIC]: E01902 / CTG, 7.62mm Blank, M82 w/ M13 Link [A111] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND ^(†) | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Oct 2020 | 13,795,460 | 0.41 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 13,388,000 | 0.53 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Oct 2022 | 12,476,630 | 0.54 | Y | | |

^(†) indicates the presence of a P-21

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|-------|-------|-------|-------|-------|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|--|--|--|--|--|--------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E01902 / CTG, 7.62mm Blank, M82 w/ M13 Link [A111] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cost Elements <small>(Units in Millions, * = < 500)</small> | | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | | | B A L A N C E | | | | | | | | | | | | | | | |
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 903062538 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2020 | ARMY | 13.795 | .000 | 13.795 | | | | | | | A | - | - | - | - | - | - | - | - | - | - | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | 1.150 | .000 | | | | | | |
| 1 | | 2021 | ARMY | 13.388 | .000 | 13.388 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13.388 |
| 1 | | 2022 | ARMY | 12.477 | .000 | 12.477 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12.477 |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E01902 / CTG, 7.62mm Blank, M82 w/ M13 Link [A111] | | | | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | B A L A N C E | |
|---|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---------------------------------|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

COMPLETE ROUND

Prior Years Deliveries: 903062538

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|------|------|--------|--------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|------|------|
| 1 | 2020 | ARMY | 13.795 | 13.795 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2021 | ARMY | 13.388 | .000 | 13.388 | 1.122 | 1.122 | 1.122 | 1.122 | 1.122 | 1.122 | 1.122 | 1.122 | 1.122 | 1.122 | 1.049 | | | | | | | | | | | .000 | | | | | |
| 1 | 2022 | ARMY | 12.477 | .000 | 12.477 | | | | | | A | - | - | - | - | - | - | 1.040 | 1.040 | 1.040 | 1.040 | 1.040 | 1.040 | 1.040 | 1.040 | 1.040 | 1.040 | 1.040 | 1.040 | 1.040 | .000 | |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|---|---|---------------------------------|----------------|--|-------------------------------|-----------------|-------------------|---|--------------------|-----------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | Item Number / Title [DODIC]: E01902 / CTG, 7.62mm Blank, M82 w/ M13 Link [A111] | | | | |
| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | OLIN WINCHESTER, LLC - LCAAP - INDEPENDENCE, MO | 800 | 5,160,000 | 17,700,000 | 6 | 6 | 7 | 13 | 6 | 6 | 7 | 13 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | Item Number / Title [DODIC]: E02011 / CTG, 7.62mm Ball M80A1 LeadFree, w/M13 Link [AB79] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|---------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 62.594 | 18.832 | 12.482 | 1.878 | - | 1.878 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 62.594 | 18.832 | 12.482 | 1.878 | - | 1.878 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 62.594 | 18.832 | 12.482 | 1.878 | - | 1.878 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 0.79 | 74,755,959 | 59.356 | 0.74 | 22,805,266 | 16.876 | 0.92 | 12,431,936 | 11.437 | 0.91 | 1,915,832 | 1.743 | - | - | - | 0.91 | 1,915,832 | 1.743 |
| Subtotal: Recurring Cost | - | - | 59.356 | - | - | 16.876 | - | - | 11.437 | - | - | 1.743 | - | - | - | - | - | 1.743 |
| Subtotal: Hardware Cost | - | - | 59.356 | - | - | 16.876 | - | - | 11.437 | - | - | 1.743 | - | - | - | - | - | 1.743 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | - | - | - | 0.115 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | - | - | - | - | - | - | 0.115 | - | - | - | - | - | - | - | - | - |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Environmental Initiatives | - | - | 0.400 | - | - | 0.392 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Product Improvement Cost | - | - | 0.400 | - | - | 0.392 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.797 | - | - | 1.555 | - | - | 0.921 | - | - | 0.125 | - | - | - | - | - | 0.125 |
| Subtotal: Support - Production Engineering Cost | - | - | 2.797 | - | - | 1.555 | - | - | 0.921 | - | - | 0.125 | - | - | - | - | - | 0.125 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.029 | - | - | 0.008 | - | - | 0.009 | - | - | 0.010 | - | - | - | - | - | 0.010 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.029 | - | - | 0.008 | - | - | 0.009 | - | - | 0.010 | - | - | - | - | - | 0.010 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |
| Item Number / Title [DODIC]: E02011 / CTG, 7.62mm Ball M80A1 LeadFree, w/M13 Link [AB79] | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--------------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Gross/Weapon System Cost | - | - | 62.594 | - | - | 18.832 | - | - | 12.482 | - | - | 1.878 | - | - | - | - | - | 1.878 |

Remarks:

The price difference from FY 2020 through FY 2021 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021.

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|---|--------------------------------------|----------------------------|---------------|------------------------------|---|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | | Item Number / Title [DODIC]: E02011 / CTG, 7.62mm Ball M80A1 LeadFree, w/M13 Link [AB79] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Jan 2020 | Aug 2020 | 8,666,001 | 0.75 | Y | | |
| COMPLETE ROUND | | 2020 | OLIN WINCHESTER LLC / EAST ALTON, IL | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Oct 2020 | 14,139,265 | 0.75 | Y | | |
| COMPLETE ROUND | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Dec 2021 | 12,431,936 | 0.92 | Y | | |
| COMPLETE ROUND | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Oct 2022 | 1,436,874 | 0.91 | Y | | |
| COMPLETE ROUND | | 2022 | OLIN WINCHESTER LLC / OXFORD, MS | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Oct 2022 | 478,958 | 0.91 | Y | | |

Remarks:
FY 2020 complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | Item Number / Title [DODIC]: E02012 / CTG, 7.62mm 4 Ball M80A1/1 Trcr M62A1 LeadFree [AB86] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|---------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 290.457 | 59.787 | 58.963 | 40.953 | - | 40.953 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 290.457 | 59.787 | 58.963 | 40.953 | - | 40.953 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 290.457 | 59.787 | 58.963 | 40.953 | - | 40.953 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 1.06 | 256,712K | 272.115 | 0.83 | 66,565,900 | 55.250 | 1.01 | 53,733,000 | 54.270 | 0.99 | 38,182,143 | 37.791 | - | - | - | 0.99 | 38,182,143 | 37.791 |
| Subtotal: Recurring Cost | - | - | 272.115 | - | - | 55.250 | - | - | 54.270 | - | - | 37.791 | - | - | - | - | - | 37.791 |
| Subtotal: Hardware Cost | - | - | 272.115 | - | - | 55.250 | - | - | 54.270 | - | - | 37.791 | - | - | - | - | - | 37.791 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.308 | - | - | 0.105 | - | - | 0.115 | - | - | 0.115 | - | - | - | - | - | 0.115 |
| Subtotal: Support - Acceptance Testing Cost | - | - | 0.308 | - | - | 0.105 | - | - | 0.115 | - | - | 0.115 | - | - | - | - | - | 0.115 |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Environmental Initiatives | - | - | 1.100 | - | - | 0.480 | - | - | 0.105 | - | - | 0.105 | - | - | - | - | - | 0.105 |
| Subtotal: Support - Product Improvement Cost | - | - | 1.100 | - | - | 0.480 | - | - | 0.105 | - | - | 0.105 | - | - | - | - | - | 0.105 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 16.860 | - | - | 3.937 | - | - | 4.452 | - | - | 2.923 | - | - | - | - | - | 2.923 |
| Subtotal: Support - Production Engineering Cost | - | - | 16.860 | - | - | 3.937 | - | - | 4.452 | - | - | 2.923 | - | - | - | - | - | 2.923 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.034 | - | - | 0.016 | - | - | 0.021 | - | - | 0.019 | - | - | - | - | - | 0.019 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.034 | - | - | 0.016 | - | - | 0.021 | - | - | 0.019 | - | - | - | - | - | 0.019 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | Item Number / Title [DODIC]: E02012 / CTG, 7.62mm 4 Ball M80A1/1 Trcr M62A1 LeadFree [AB86] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--------------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Gross/Weapon System Cost | - | - | 290.457 | - | - | 59.787 | - | - | 58.963 | - | - | 40.953 | - | - | - | - | - | 40.953 |

Remarks:

The price difference from FY 2020 through FY 2021 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021.

(†) indicates the presence of a P-5a

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|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | Item Number / Title [DODIC]: E02012 / CTG, 7.62mm 4 Ball M80A1/1 Trcr M62A1 LeadFree [AB86] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND ^(†) | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Mar 2021 | 41,270,858 | 0.83 | Y | | |
| COMPLETE ROUND ^(†) | | 2020 | OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL | C / FFP | ROCK ISLAND ARSENAL, IL | Jan 2020 | Jan 2021 | 25,295,042 | 0.83 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 26,866,500 | 1.02 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 26,866,500 | 1.02 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 28,636,607 | 0.98 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | OLIN WINCHESTER LLC / OXFORD, MS | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Oct 2022 | 9,545,536 | 0.98 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
FY 2020 - FY 2022 complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E02012 / CTG, 7.62mm 4 Ball M80A1/1 Trcr M62A1 LeadFree [AB86] | | | | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | Fiscal Year 2022 | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | B A L A N C E | | |
|---|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | | A U G | S E P |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 256712421 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 41.271 | 24.075 | 17.196 | 3.439 | 3.439 | 3.439 | 3.439 | 3.439 | | | | | | | | | | | | | | | | | | .000 | | |
| | 2 | 2020 | ARMY | 25.295 | 18.971 | 6.324 | 2.108 | 2.108 | 2.108 | | | | | | | | | | | | | | | | | | | | .000 | | |
| | 1 | 2021 | ARMY | 26.866 | .000 | 26.866 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | .000 | | |
| | 2 | 2021 | ARMY | 26.866 | .000 | 26.866 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | 2.239 | .000 | | |
| | 1 | 2022 | ARMY | 28.637 | .000 | 28.637 | | | | | | | | | | | | | | | | | | | | | | | 11.932 | | |
| | 3 | 2022 | ARMY | 9.546 | .000 | 9.546 | | | | | | | | | | | | | | | | | | | | | | | .000 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E02012 / CTG, 7.62mm 4 Ball M80A1/1 Trcr M62A1 LeadFree [AB86] | | | | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | | Fiscal Year 2024 | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | B A L A N C E | | | |
|---|------------------|------|---------|-------------|---|--|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|-------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEP T P R I O R T O 1 O C T 2 0 2 3 | BAL D U E A S O F 1 O C T | Calendar Year 2024 | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | | M A Y | J U N | J U L |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 256712421 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 41.271 | 41.271 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | 2 | 2020 | ARMY | 25.295 | 25.295 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | 1 | 2021 | ARMY | 26.866 | 26.866 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | 2 | 2021 | ARMY | 26.866 | 26.866 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | 1 | 2022 | ARMY | 28.637 | 16.705 | 11.932 | 2.386 | 2.386 | 2.386 | 2.386 | 2.386 | | | | | | | | | | | | | | | | | | .000 |
| | 3 | 2022 | ARMY | 9.546 | 9.546 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types |
| Item Number / Title [DODIC]: E02012 / CTG, 7.62mm 4 Ball M80A1/1 Trcr M62A1 LeadFree [AB86] | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | OLIN WINCHESTER, LLC - LCAAP - INDEPENDENCE, MO | 500,000 | 2,000,000 | 4,000,000 | 6 | 6 | 12 | 18 | 6 | 6 | 7 | 13 |
| 2 | OLIN CORP WINCHESTER DIVISION - EAST ALTON, IL | 500,000 | 2,000,000 | 4,000,000 | 6 | 6 | 12 | 18 | 6 | 6 | 7 | 13 |
| 3 | OLIN WINCHESTER LLC - OXFORD, MS | 500,000 | 2,000,000 | 4,000,000 | 6 | 6 | 12 | 18 | 6 | 6 | 6 | 12 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | Item Number / Title [DODIC]: E02015 / CTG, 7.62mm Bottlenose Blank, M82A1, Single [AB72] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|--------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 2.011 | 0.492 | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 2.011 | 0.492 | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 2.011 | 0.492 | - | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 0.70 | 2,701,938 | 1.891 | 0.73 | 626,624 | 0.457 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 1.891 | - | - | 0.457 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 1.891 | - | - | 0.457 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.120 | - | - | 0.035 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 0.120 | - | - | 0.035 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 2.011 | - | - | 0.492 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | Item Number / Title [DODIC]: E02501 / CTG, 7.62mm, Single Round (NPF DDI), M63A1 [AB47] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|--------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 1.030 | 0.040 | 0.040 | 0.075 | - | 0.075 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 1.030 | 0.040 | 0.040 | 0.075 | - | 0.075 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 1.030 | 0.040 | 0.040 | 0.075 | - | 0.075 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | 0.931 | 0.88 | 45,000 | 0.040 | 1.07 | 37,000 | 0.040 | 1.09 | 67,087 | 0.073 | - | - | - | 1.09 | 67,087 | 0.073 |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>0.931</i> | - | - | <i>0.040</i> | - | - | <i>0.040</i> | - | - | <i>0.073</i> | - | - | - | - | - | <i>0.073</i> |
| <i>Subtotal: Hardware Cost</i> | - | - | 0.931 | - | - | 0.040 | - | - | 0.040 | - | - | 0.073 | - | - | - | - | - | 0.073 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.099 | - | - | - | - | - | 0.000 | - | - | 0.002 | - | - | - | - | - | 0.002 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | <i>0.099</i> | - | - | - | - | - | <i>0.000</i> | - | - | <i>0.002</i> | - | - | - | - | - | <i>0.002</i> |
| Gross/Weapon System Cost | - | - | 1.030 | - | - | 0.040 | - | - | 0.040 | - | - | 0.075 | - | - | - | - | - | 0.075 |

Remarks:

The price difference from FY 2020 through FY 2021 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | Item Number / Title [DODIC]: E89100 / CTG, 7.62mm Special Ball, M118 Long Range [AA11] |

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| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 42.010 | 5.380 | 0.838 | 0.768 | - | 0.768 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 42.010 | 5.380 | 0.838 | 0.768 | - | 0.768 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 42.010 | 5.380 | 0.838 | 0.768 | - | 0.768 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 1.00 | 38,018,420 | 38.004 | 0.79 | 6,469,339 | 5.111 | 0.98 | 793,130 | 0.777 | 1.00 | 707,125 | 0.707 | - | - | - | 1.00 | 707,125 | 0.707 |
| BOX METAL M2A2 | 13.21 | 11,213 | 0.148 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 38.167 | - | - | 5.111 | - | - | 0.777 | - | - | 0.707 | - | - | - | - | - | 0.707 |
| Subtotal: Hardware Cost | - | - | 38.167 | - | - | 5.111 | - | - | 0.777 | - | - | 0.707 | - | - | - | - | - | 0.707 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 3.843 | - | - | 0.266 | - | - | 0.057 | - | - | 0.056 | - | - | - | - | - | 0.056 |
| Subtotal: Support - Production Engineering Cost | - | - | 3.843 | - | - | 0.266 | - | - | 0.057 | - | - | 0.056 | - | - | - | - | - | 0.056 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.015 | - | - | 0.003 | - | - | 0.004 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.015 | - | - | 0.003 | - | - | 0.004 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| Gross/Weapon System Cost | - | - | 42.010 | - | - | 5.380 | - | - | 0.838 | - | - | 0.768 | - | - | - | - | - | 0.768 |

Remarks:

The price difference from FY 2020 through FY 2021 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | Item Number / Title [DODIC]: F57510 / CTG, 7.62mm Advanced Armor Piercing, XM1158 |

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| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|---------------|---------------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 20.700 | 21.013 | 22.960 | 23.465 | - | 23.465 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 20.700 | 21.013 | 22.960 | 23.465 | - | 23.465 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 20.700 | 21.013 | 22.960 | 23.465 | - | 23.465 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 18.92 | 1,040,929 | 19.694 | 17.53 | 1,066,920 | 18.703 | 16.14 | 1,315,931 | 21.239 | 15.18 | 1,456,162 | 22.105 | - | - | - | 15.18 | 1,456,162 | 22.105 |
| Subtotal: Recurring Cost | - | - | 19.694 | - | - | 18.703 | - | - | 21.239 | - | - | 22.105 | - | - | - | - | - | 22.105 |
| Subtotal: Hardware Cost | - | - | 19.694 | - | - | 18.703 | - | - | 21.239 | - | - | 22.105 | - | - | - | - | - | 22.105 |
| Support - Non-Recurring Support Cost | | | | | | | | | | | | | | | | | | |
| Value Engineering | - | - | - | - | - | 0.689 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Non-Recurring Support Cost | - | - | - | - | - | 0.689 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.000 | - | - | 1.612 | - | - | 1.712 | - | - | 1.352 | - | - | - | - | - | 1.352 |
| Subtotal: Support - Production Engineering Cost | - | - | 1.000 | - | - | 1.612 | - | - | 1.712 | - | - | 1.352 | - | - | - | - | - | 1.352 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.006 | - | - | 0.009 | - | - | 0.009 | - | - | 0.009 | - | - | - | - | - | 0.009 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.006 | - | - | 0.009 | - | - | 0.009 | - | - | 0.009 | - | - | - | - | - | 0.009 |
| Gross/Weapon System Cost | - | - | 20.700 | - | - | 21.013 | - | - | 22.960 | - | - | 23.465 | - | - | - | - | - | 23.465 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | Item Number / Title [DODIC]: F57510 / CTG, 7.62mm Advanced Armor Piercing, XM1158 | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|---|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| COMPLETE ROUND ^(†) | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | C / FFP | PICATINNY ARSENAL, NJ | Sep 2020 | Sep 2021 | 156,923 | 17.53 | Y | | |
| COMPLETE ROUND ^(†) | | 2020 | US ARMY ARDEC RDECOM / PICATINNY ARSENAL, NJ | Option / FFP | PICATINNY ARSENAL, NJ | Aug 2020 | Aug 2021 | 909,997 | 17.53 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | PICATINNY ARSENAL, NJ | Sep 2021 | Sep 2022 | 411,228 | 16.15 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | US ARMY ARDEC RDECOM / PICATINNY ARSENAL, NJ | Option / FFP | PICATINNY ARSENAL, NJ | Jul 2021 | Jul 2022 | 904,703 | 16.15 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 842,390 | 15.18 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | US ARMY ARDEC RDECOM / PICATINNY ARSENAL, NJ | Option / FFP | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2023 | 613,772 | 15.18 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
FY 2020 - FY 2022 complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | | | Item Number / Title [DODIC]: F57510 / CTG, 7.62mm Advanced Armor Piercing, XM1158 | | | | | | | | | | | | | |

| Cost Elements (Units in Thousands) | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | B A L A N C E | |
|---------------------------------------|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---------------------------------|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|------|------|---------|------|---------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Prior Years Deliveries: 1040929 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 156.923 | .000 | 156.923 | | | | | | | | | | | | | | | | | | | | | | | |
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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: F57510 / CTG, 7.62mm Advanced Armor Piercing, XM1158 | | | | | | | | | |

| Cost Elements (Units in Thousands) | | | | | Fiscal Year 2022 | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | B A L A N C E | | | | |
|---------------------------------------|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|--------|--|------|---------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 1040929 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 156.923 | 13.077 | 143.846 | 13.077 | 13.077 | 13.077 | 13.077 | 13.077 | 13.077 | 13.077 | 13.077 | 13.077 | 13.077 | | | | | | | | | | | | | | | | | | | .000 |
| | 2 | 2020 | ARMY | 909.997 | 151.667 | 758.330 | 75.833 | 75.833 | 75.833 | 75.833 | 75.833 | 75.833 | 75.833 | 75.833 | 75.833 | 75.833 | | | | | | | | | | | | | | | | | | | .000 |
| | 1 | 2021 | ARMY | 411.228 | .000 | 411.228 | - | - | - | - | - | - | - | - | - | - | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | 34.269 | | .000 | |
| | 2 | 2021 | ARMY | 904.703 | .000 | 904.703 | - | - | - | - | - | - | - | - | - | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | 75.391 | | .000 | |
| | 1 | 2022 | ARMY | 842.390 | .000 | 842.390 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 350.995 |
| | 2 | 2022 | ARMY | 613.772 | .000 | 613.772 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 255.735 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: F57510 / CTG, 7.62mm Advanced Armor Piercing, XM1158 | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2024 | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | BALANCE | | |
|--|---------|----|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|-------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | | A U G | S E P |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|------|------|---------|---------|---------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 1040929 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 156.923 | 156.923 | .000 | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2020 | ARMY | 909.997 | 909.997 | .000 | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2021 | ARMY | 411.228 | 411.228 | .000 | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2021 | ARMY | 904.703 | 904.703 | .000 | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2022 | ARMY | 842.390 | 491.395 | 350.995 | 70.199 | 70.199 | 70.199 | 70.199 | 70.199 | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2022 | ARMY | 613.772 | 358.037 | 255.735 | 51.147 | 51.147 | 51.147 | 51.147 | 51.147 | | | | | | | | | | | | | | | | | | | .000 |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 0612E02000 / CTG, 7.62MM, All Types |
| | | Item Number / Title [DODIC]: F57510 / CTG, 7.62mm Advanced Armor Piercing, XM1158 |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | OLIN WINCHESTER, LLC - LCAAP - INDEPENDENCE, MO | 400,000 | 1,500,000 | 2,000,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |
| 2 | US ARMY ARDEC RDECOM - PICATINNY ARSENAL, NJ | 400,000 | 1,500,000 | 2,000,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION |
|---|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|-------------|---------|---------------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | - | 11.988 | 76.794 | - | 76.794 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | - | 11.988 | 76.794 | - | 76.794 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | - | 11.988 | 76.794 | - | 76.794 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes NEXT GENERATION SQUAD WEAPON AMMUNITION

(E06002) NEXT GENERATION COMBAT ROUND is a 6.8mm Ball Cartridge / General Purpose (GP) ammunition packed in cartons and cartridge linked belts. The ammunition is available in straight and linked configuration for use in the Next Generation Squad Weapons (NGSW) Rifle and Automatic Rifle. The GP Ball Cartridge has a steel penetrator and non-lead slug surrounded by a copper jacket. This ammunition is intended for use against personnel and light-armored targets. The GP ammunition is a training standard item used in both combat and training. This item is not yet type classified. Item is Code B, not approved for service use.

(E06014) NEXT GENERATION REDUCED RANGE ROUND is a 6.8mm Ball Cartridge; training standard item used for training purposes only. The ammunition is packed in cartons and linked belts for use in the NGSW Rifle and Automatic Rifle. The Cartridge is intended to perform similarly to the combat variants and is intended for use on military installations with Surface Danger Zone (SDZ) restrictions. This item is not yet type classified. Item is Code B, not approved for service use.

(E06015) NEXT GENERATION SQUAD WEAPON SPECIAL PURPOSE ROUND is 6.8mm Ball Cartridge. The Special Purpose (SP) ammunition is packed in cartons and linked belts; for use in the NGSW Rifle and Automatic Rifle. The SP Ball Cartridge utilizes projectiles with an exposed black tip surrounded by a copper jacket. This ammunition is intended for use against a broad spectrum of hard targets. The SP ammunition is a combat only war reserve item. This item is not yet type classified. Item is Code B, not approved for service use.

(E60011) NEXT GENERATION BLANK ROUND is 6.8mm BLANK cartridge that does not have a projectile. It is designed to mimic the sound and function of the combat ammunition variants. It is intended for training use only and not suitable for combat. The Blank ammunition is packed in cartons for use in the NGSW Rifle and Automatic Rifle. This item is not yet type classified. Item is Code B, not approved for service use.

LI 1065E06001 - NEXT GENERATION SQUAD WEAPON AMMUNITION

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION |

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E06002 / NEXT GENERATION COMBAT ROUND | P-5a, P-21 | | | - / - | - / - | - / 11.988 | - / 65.056 | - / - | - / 65.056 |
| P-5 | E06014 / NEXT GENERATION REDUCED RANGE ROUND | P-5a | | | - / - | - / - | - / - | - / 4.807 | - / - | - / 4.807 |
| P-5 | E06015 / NEXT GENERATION SQUAD WEAPON SPECIAL PURPOSE ROUND | | | | - / - | - / - | - / - | - / 3.369 | - / - | - / 3.369 |
| P-5 | E60011 / NEXT GENERATION BLANK ROUND | | | | - / - | - / - | - / - | - / 3.562 | - / - | - / 3.562 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / - | - / 11.988 | - / 76.794 | - / - | - / 76.794 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense (DoD) Instruction 3000.04 (Munitions Requirements Process) and Army Regulation (AR) 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

The FY 2022 Base procurement dollars in the amount of \$76.794 million supports procurement of 29.823 million cartridges. The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or Foreign Military Sales (FMS) to increase procurement of NEXT GENERATION SQUAD WEAPON AMMUNITION when possible. Funding for this ammunition procurement budget item aligns with the Army's modernization priorities in support of the National Defense Strategy.

(E06002) NEXT GENERATION COMBAT ROUND / General Purpose (GP) ammunition is a training standard item used in both combat and training. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$65.056 million supports the procurement of 25.677 million GP cartridges.
 Type classification date: To be determined

(E06014) NEXT GENERATION REDUCED RANGE ROUND is a training unique item not used in combat. FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$4.807 million supports the procurement of 1.840 million Reduced Range cartridges and supports establishing a Low-Rate Initial Production (LRIP) capability.
 Type classification date: To be determined

(E06015) NEXT GENERATION SQUAD WEAPON SPECIAL PURPOSE ROUND / Special Purpose (SP) ammunition is a war reserve item used in combat. FY 2022 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$3.369 million supports the procurement of 0.163 million SP cartridges and supports establishing a Low-Rate Initial Production (LRIP) capability.
 Type classification date: To be determined

LI 1065E06001 - NEXT GENERATION SQUAD WEAPON AMMUNITION

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |

Line Item MDAP/MAIS Code: N/A

(E60011) NEXT GENERATION BLANK ROUND is a training unique item not used in combat. FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$3.562 million supports the procurement of 2.143 million BLANK cartridges.
 Type classification date: To be determined

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION | Item Number / Title [DODIC]: E06002 / NEXT GENERATION COMBAT ROUND |

| | | | | | | | |
|---|--------------------|----------------|----------------|------------------------|--------------------|----------------------|--|
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | |
| Procurement Quantity <i>(Units in Each)</i> | - | - | - | - | - | - | |
| Gross/Weapon System Cost <i>(\$ in Millions)</i> | - | - | 11.988 | 65.056 | - | 65.056 | |
| Less PY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - | |
| Net Procurement (P-1) <i>(\$ in Millions)</i> | - | - | 11.988 | 65.056 | - | 65.056 | |
| Plus CY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - | |
| Total Obligation Authority <i>(\$ in Millions)</i> | - | - | 11.988 | 65.056 | - | 65.056 | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares <i>(\$ in Millions)</i> | - | - | - | - | - | - | |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i> | - | - | - | - | - | - | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | - | - | - | - | 3.17 | 3,600,000 | 11.412 | 2.41 | 25,677,593 | 61.883 | - | - | - | 2.41 | 25,677,593 | 61.883 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | 11.412 | - | - | 61.883 | - | - | - | - | - | 61.883 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | 11.412 | - | - | 61.883 | - | - | - | - | - | 61.883 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | 0.571 | - | - | 3.173 | - | - | - | - | - | 3.173 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | 0.571 | - | - | 3.173 | - | - | - | - | - | 3.173 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | - | - | - | 0.005 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | - | - | - | - | - | - | 0.005 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | 11.988 | - | - | 65.056 | - | - | - | - | - | 65.056 |

Remarks:
Unit price decrease from FY 2021 to FY 2022 due to step ladder pricing matrix based on quantity ranges. Production Engineering increase from FY 2021 to FY 2022 due to increase in planned procurement quantity.

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|---|--------------------------------------|--------------------------|---------------|------------------------------|---|-------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION | | | | | Item Number / Title [DODIC]: E06002 / NEXT GENERATION COMBAT ROUND | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND ^(†) | | 2021 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | May 2021 | Mar 2022 | 3,600,000 | 3.17 | N | | |
| COMPLETE ROUND ^(†) | | 2022 | TO BE SELECTED / TBS01 | Option / FFP | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2023 | 25,677,593 | 2.41 | N | | |

^(†) indicates the presence of a P-21

Remarks:

Unit price decrease from FY 2021 to FY 2022 due to step ladder pricing matrix based on quantity ranges.

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Exhibit P-21, Production Schedule: PB 2022 Army **Date:** May 2021

| | | |
|--|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION | Item Number / Title [DODIC]: E06002 / NEXT GENERATION COMBAT ROUND |
|--|---|---|

| Cost Elements <small>(Units in Millions, * = < 500)</small> | | | | | | Fiscal Year 2021 | | | | | | | | | | Fiscal Year 2022 | | | | | | | | | | BALANCE | | | | | | | | | | |
|---|---------|------|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|------|------|-------|--------|--|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2020 | BAL DUE AS OF 1 OCT | Calendar Year 2021 | | | | | | | | | | Calendar Year 2022 | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | | M A Y | J U N | J U L | A U G | S E P | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2021 | ARMY | 3.600 | .000 | 3.600 | | | | | | | | | | | A | - | - | - | - | - | - | - | - | - | .300 | .300 | .300 | .300 | .300 | .300 | .300 | 1.500 | | |
| | 1 | 2022 | ARMY | 25.678 | .000 | 25.678 | | | | | | | | | | | | | | | | | | | | | A | - | - | - | - | - | - | - | 25.678 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

LI 1065E06001 - NEXT GENERATION SQUAD WEAPON
AMMUNITION

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|-----------------------|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION | | | | | | | | | | Item Number / Title [DODIC]: E06002 / NEXT GENERATION COMBAT ROUND | | | | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | | Fiscal Year 2023 | | | | | | | | | | | | Fiscal Year 2024 | | | | | | | | | | | | B A L A N C E | |
|---|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2022 | BAL DUE AS OF 1 OCT | Calendar Year 2023 | | | | | | | | | | | | Calendar Year 2024 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2021 | ARMY | 3.600 | 2.100 | 1.500 | .300 | .300 | .300 | .300 | .300 | | | | | | | | | | | | | | | | | | .000 | | |
| | 1 | 2022 | ARMY | 25.678 | .000 | 25.678 | - | - | - | - | - | 2.140 | 2.140 | 2.140 | 2.140 | 2.140 | 2.140 | 2.140 | 2.140 | 2.140 | 2.140 | 2.140 | 2.140 | 2.140 | 2.140 | 2.140 | | | .000 | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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|--|--|--|---|-----------------------|--|--|---|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION | | | | Item Number / Title [DODIC]: E06002 / NEXT GENERATION COMBAT ROUND | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | TO BE SELECTED - TBS01 | 250,000 | 5,000,000 | 10,000,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION | Item Number / Title [DODIC]: E06014 / NEXT GENERATION REDUCED RANGE ROUND |

| | | | | | | | |
|---|--------------------|----------------|----------------|------------------------|--------------------|----------------------|--|
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | |
| Procurement Quantity (Units in Each) | - | - | - | - | - | - | |
| Gross/Weapon System Cost (\$ in Millions) | - | - | - | 4.807 | - | 4.807 | |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | |
| Net Procurement (P-1) (\$ in Millions) | - | - | - | 4.807 | - | 4.807 | |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | |
| Total Obligation Authority (\$ in Millions) | - | - | - | 4.807 | - | 4.807 | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | - | - | - | - | - | - | |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | - | - | - | - | - | - | - | 2.50 | 1,839,793 | 4.599 | - | - | - | 2.50 | 1,839,793 | 4.599 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 4.599 | - | - | - | - | - | 4.599 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 4.599 | - | - | - | - | - | 4.599 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.208 | - | - | - | - | - | 0.208 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.208 | - | - | - | - | - | 0.208 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 4.807 | - | - | - | - | - | 4.807 |

^(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|---|--------------------------------------|----------------------------|---------------|--|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION | | | | Item Number / Title [DODIC]: E06014 / NEXT GENERATION REDUCED RANGE ROUND | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 1,839,793 | 2.50 | N | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION | Item Number / Title [DODIC]: E06015 / NEXT GENERATION SQUAD WEAPON SPECIAL PURPOSE ROUND |

| | | | | | | | |
|---|--------------------|----------------|----------------|------------------------|--------------------|----------------------|--|
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | |
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | - | - | 3.369 | - | 3.369 | |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | - | - | 3.369 | - | 3.369 | |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | - | - | 3.369 | - | 3.369 | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | - | - | - | - | - | - | - | 20.14 | 162,631 | 3.275 | - | - | - | 20.14 | 162,631 | 3.275 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 3.275 | - | - | - | - | - | 3.275 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 3.275 | - | - | - | - | - | 3.275 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.094 | - | - | - | - | - | 0.094 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.094 | - | - | - | - | - | 0.094 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 3.369 | - | - | - | - | - | 3.369 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1065E06001 / NEXT GENERATION SQUAD WEAPON AMMUNITION | Item Number / Title [DODIC]: E60011 / NEXT GENERATION BLANK ROUND |

| | | | | | | | |
|---|--------------------|----------------|----------------|------------------------|--------------------|----------------------|--|
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | |
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | - | - | 3.562 | - | 3.562 | |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | - | - | 3.562 | - | 3.562 | |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | - | - | 3.562 | - | 3.562 | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | - | - | - | - | - | - | - | 1.55 | 2,143,225 | 3.322 | - | - | - | 1.55 | 2,143,225 | 3.322 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 3.322 | - | - | - | - | - | 3.322 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 3.322 | - | - | - | - | - | 3.322 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.240 | - | - | - | - | - | 0.240 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.240 | - | - | - | - | - | 0.240 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 3.562 | - | - | - | - | - | 3.562 |

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/
 Medium Cal Ammunition **P-1 Line Item Number / Title:**
 1450EA3000 / CTG, Handgun, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|---------------|--------------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 110.846 | 17.824 | 0.870 | 7.812 | - | 7.812 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 110.846 | 17.824 | 0.870 | 7.812 | - | 7.812 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 110.846 | 17.824 | 0.870 | 7.812 | - | 7.812 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes CTG, Handgun, ALL TYPES.

(E05210) CTG, 9MM BALL M882 (Combat Pack) cartridge contains a bullet comprised of a copper alloy jacket and a lead alloy core. The cartridge is identified by the plain bullet tip. The ammunition complies with North Atlantic Treaty Organization (NATO) Standard Agreement (STANAG) 4090 and is packed in military type packaging. It is used in the M9 and M11 pistols. This item is Code A, approved for service use.

(E05218) CTG, MODULAR HANDGUN SYSTEM (MHS) AMMUNITION for the M17 and M18 (compact version) of the Modular Handgun System consists of four new 9MM cartridges - Ball M1152, Special Purpose M1153, Drill Dummy Inert (DDI) M1156 and Blank XM1157. The Ball cartridge is intended for use against enemy personnel, for training, and for force protection. The Special Purpose cartridge is required for use in situations where limited over-penetration of targets is necessary to reduce collateral damage. DDI cartridges are completely inert, plated and drilled for easy identification and used for training and weapon familiarization. Blank cartridges are used for K-9 training through the use of a weapon adapter kit. These items are type classified, Code A, approved for service use except for Blank XM1157 which is Code B, not approved for service use.

(E96105) CTG, 9MM MARKING, M1041 (BLUE) is used for force on force training engagements. The cartridge can be fired with existing M9/M11/MHS pistols and M4 rifles with use of a conversion kit. The M9 kit consists of a replacement barrel only. The M11 kit consists of a replacement barrel and recoil spring guide. The M4 kit consist of a replacement upper receiver for 9mm. A blue enameled portion of the M9, M11, and M4 barrels is visible through the ejection port of the weapons. The projectile leaves a mark upon impact (similar to paintball), enabling after action evaluation of training scenarios. It differs from paintball in that it is a full complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. The M1041 is required to hit targets accurately out to 12 meters. The cartridge has been safety certified to be fired in close proximity at properly protected human subjects. This item is Code A, approved for service use.

(E96107) CTG, 9MM MARKING, M1041 (RED) is used for force on force training engagements. The cartridge can be fired with existing M9/M11/MHS pistols, and M4 rifles with use of a conversion kit. The M9 kit consists of a replacement barrel only. The M11 kit consists of a replacement barrel and recoil spring guide. The M4 kit consist of a replacement upper receiver for 9mm. A blue enameled portion of the M9, M11 and M4 barrels is visible through the ejection port of the weapons. The projectile leaves a mark upon impact (similar to paintball), enabling after action evaluation of training scenarios. It differs from paintball in that it is a full complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. The M1041 is required to hit targets accurately out to 12 meters. The cartridge has been safety certified to be fired in close proximity at properly protected human subjects. This item is Code A, approved for service use.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition **P-1 Line Item Number / Title:** 1450EA3000 / CTG, Handgun, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E05210 / CTG, 9mm Ball, M882 (Combat Pack) [A363] | | A | | - / 82.623 | - / 1.717 | - / 0.017 | - / 0.017 | - / - | - / 0.017 |
| P-5 | E05218 / CTG, Modular Handgun Ammo | P-5a, P-21 | B | | - / 23.467 | - / 15.443 | - / - | - / 7.795 | - / - | - / 7.795 |
| P-5 | E96105 / CTG, 9mm Marking, M1041 (Blue) [AB13] | | A | | - / 2.652 | - / 0.430 | - / 0.640 | - / - | - / - | - / - |
| P-5 | E96107 / CTG, 9mm Marking, M1041 (Red) [AB14] | | A | | - / 2.104 | - / 0.234 | - / 0.213 | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 110.846 | - / 17.824 | - / 0.870 | - / 7.812 | - / - | - / 7.812 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense (DoD) Instruction 3000.04 (Munitions Requirements Process) and Army Regulation (AR) 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$7.795 million supports the procurement of 34.848 million cartridges.

FY 2022 Base dollars in the amount of \$0.017 million support the enduring COCOM requirement for procurement of 0.64 million 9mm M882 cartridges to deter potential adversaries and support the European Deterrence Initiative.

(E05210) CTG 9MM BALL, M882 (Combat Pack) is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base dollars in the amount of \$0.017 million supports the enduring COCOM requirement for procurement of 0.064 million M882 9mm Ball bullets to deter potential adversaries and support the European Deterrence Initiative.
 Type Classification Date: 1985

(E05218) CTG MODULAR HANDGUN SYSTEM AMMUNITION is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$7.795 million supports the procurement of 34.848 million Modular Handgun Ammo cartridges.
 Type Classification Date: M1152/M1153/M156 June 2019; XM1157 Blank pending.

(E96105) CTG 9MM MARKING, M1041 (BLUE) is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goals.
 Type Classification Date: 2009

(E96107) CTG, 9MM MARKING, M1041 (RED) is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goals.
 Type Classification Date: 2009

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 1450EA3000 / CTG, Handgun, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1450EA3000 / CTG, Handgun, All Types | Item Number / Title [DODIC]: E05210 / CTG, 9mm Ball, M882 (Combat Pack) [A363] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 82.623 | 1.717 | 0.017 | 0.017 | - | 0.017 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 82.623 | 1.717 | 0.017 | 0.017 | - | 0.017 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 82.623 | 1.717 | 0.017 | 0.017 | - | 0.017 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 0.16 | 512,144K | 82.051 | 0.17 | 9,183,790 | 1.561 | 0.20 | 84,145 | 0.017 | 0.20 | 63,703 | 0.013 | - | - | - | 0.20 | 63,703 | 0.013 |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>81.943</i> | - | - | <i>1.561</i> | - | - | <i>0.017</i> | - | - | <i>0.013</i> | - | - | - | - | - | <i>0.013</i> |
| <i>Subtotal: Hardware Cost</i> | - | - | 81.943 | - | - | 1.561 | - | - | 0.017 | - | - | 0.013 | - | - | - | - | - | 0.013 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | 0.010 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.010 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.675 | - | - | 0.140 | - | - | 0.000 | - | - | 0.004 | - | - | - | - | - | 0.004 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.675 | - | - | 0.140 | - | - | 0.000 | - | - | 0.004 | - | - | - | - | - | 0.004 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.005 | - | - | 0.005 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.005 | - | - | 0.005 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 82.623 | - | - | 1.717 | - | - | 0.017 | - | - | 0.017 | - | - | - | - | - | 0.017 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1450EA3000 / CTG, Handgun, All Types | Item Number / Title [DODIC]: E05218 / CTG, Modular Handgun Ammo |

| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|---------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 23.467 | 15.443 | - | 7.795 | - | 7.795 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 23.467 | 15.443 | - | 7.795 | - | 7.795 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 23.467 | 15.443 | - | 7.795 | - | 7.795 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 0.18 | 106,140K | 19.487 | 0.20 | 74,902,328 | 14.980 | - | - | - | 0.21 | 34,848,478 | 7.318 | - | - | - | 0.21 | 34,848,478 | 7.318 |
| Subtotal: Recurring Cost | - | - | 19.530 | - | - | 14.980 | - | - | - | - | - | 7.318 | - | - | - | - | - | 7.318 |
| Subtotal: Hardware Cost | - | - | 19.530 | - | - | 14.980 | - | - | - | - | - | 7.318 | - | - | - | - | - | 7.318 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 0.002 | - | - | 0.001 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | 0.002 | - | - | 0.001 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 3.878 | - | - | 0.453 | - | - | - | - | - | 0.468 | - | - | - | - | - | 0.468 |
| Subtotal: Support - Production Engineering Cost | - | - | 3.878 | - | - | 0.453 | - | - | - | - | - | 0.468 | - | - | - | - | - | 0.468 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.057 | - | - | 0.008 | - | - | - | - | - | 0.009 | - | - | - | - | - | 0.009 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.057 | - | - | 0.008 | - | - | - | - | - | 0.009 | - | - | - | - | - | 0.009 |
| Gross/Weapon System Cost | - | - | 23.467 | - | - | 15.443 | - | - | - | - | - | 7.795 | - | - | - | - | - | 7.795 |

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2022 Army **Date:** May 2021

| | | |
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| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1450EA3000 / CTG, Handgun, All Types | Item Number / Title [DODIC]: E05218 / CTG, Modular Handgun Ammo |
|--|--|---|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|---------------------------------|--------------------------------------|----------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND ^(†) | | 2020 | SIG SAUER, INC. / NEWINGTON, NH | Option / FFP | PICATINNY ARSENAL, NJ | Mar 2020 | Sep 2020 | 74,902,328 | 0.20 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Sep 2022 | 34,848,478 | 0.21 | Y | | |

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 **P-1 Line Item Number / Title:** 1450EA3000 / CTG, Handgun, All Types **Item Number / Title [DODIC]:** E05218 / CTG, Modular Handgun Ammo

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | Fiscal Year 2020 | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | B A L A N C E | | |
|---|------------------|-------------|--------------|---------------|---|--|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEP T P R I O R T O 1 O C T 2 0 1 9 | BAL D U E A S O F 1 O C T | Calendar Year 2020 | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 106140301 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | AF (†) | 5.000 | .000 | 5.000 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | ARMY | 74.902 | .000 | 74.902 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | CG (†) | 5.987 | .000 | 5.987 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | Total | 85.889 | .000 | 85.889 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | AF (†) | 1.489 | .000 | 1.489 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | ARMY | 34.848 | .000 | 34.848 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | CG (†) | .931 | .000 | .931 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | NAVSEA (†) | .150 | .000 | .150 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | Total | 37.419 | .000 | 37.419 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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Exhibit P-21, Production Schedule: PB 2022 Army **Date: May 2021**

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 **P-1 Line Item Number / Title:** 1450EA3000 / CTG, Handgun, All Types **Item Number / Title [DODIC]:** E05218 / CTG, Modular Handgun Ammo

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | B A L A N C E | | |
|---|------------------|---------------------------------|---------------------------------|---|--|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|---|---|---------------------------------|-------------|------|
| O C C O # | M F R Y | S E R V I C E | P R O C Q T Y | A C C E P T P R I O R T O 1 O C T 2 0 2 1 | B A L D U E A S O F 1 O C T | Calendar Year 2022 | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 106140301 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2020 | AF (†) | 5.000 | 5.000 | .000 | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2020 | ARMY | 74.902 | 74.902 | .000 | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2020 | CG (†) | 5.987 | 4.989 | .998 | .499 | .499 | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2020 | Total | 85.889 | 84.891 | .998 | .499 | .499 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | |
| 1 | 2022 | AF (†) | 1.489 | .000 | 1.489 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2022 | ARMY | 34.848 | .000 | 34.848 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2022 | CG (†) | .931 | .000 | .931 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2022 | NAVSEA (†) | .150 | .000 | .150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2022 | Total | 37.419 | .000 | 37.419 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |

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Exhibit P-21, Production Schedule: PB 2022 Army **Date:** May 2021

| | | |
|--|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1450EA3000 / CTG, Handgun, All Types | Item Number / Title [DODIC]: E05218 / CTG, Modular Handgun Ammo |
|--|--|---|

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | | |
|-----------|---------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|----|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | |
| 1 | TO BE SELECTED - TBS01 | 1,000 | 7,500,000 | 12,000,000 | 6 | 6 | 6 | 12 | 6 | 6 | 6 | 7 | 13 |
| 2 | SIG SAUER, INC. - NEWINGTON, NH | 1,000 | 7,500,000 | 12,000,000 | 6 | 6 | 6 | 12 | 6 | 6 | 6 | 7 | 13 |

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule. "A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1450EA3000 / CTG, Handgun, All Types | Item Number / Title [DODIC]: E96105 / CTG, 9mm Marking, M1041 (Blue) [AB13] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|---|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 2.652 | 0.430 | 0.640 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 2.652 | 0.430 | 0.640 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 2.652 | 0.430 | 0.640 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | |
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 0.58 | 4,498,210 | 2.609 | 0.65 | 645,000 | 0.419 | 0.68 | 923,667 | 0.628 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 2.609 | - | - | 0.419 | - | - | 0.628 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 2.609 | - | - | 0.419 | - | - | 0.628 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.041 | - | - | 0.011 | - | - | 0.012 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.041 | - | - | 0.011 | - | - | 0.012 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 2.652 | - | - | 0.430 | - | - | 0.640 | - | - | - | - | - | - | - | - | - |

Remarks:
FY 2021 price increase is due to negotiated Economic Price Adjustment (EPA) and risk factor added for new vendor.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1450EA3000 / CTG, Handgun, All Types | Item Number / Title [DODIC]: E96107 / CTG, 9mm Marking, M1041 (Red) [AB14] |

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| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
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| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|---|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 2.104 | 0.234 | 0.213 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 2.104 | 0.234 | 0.213 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 2.104 | 0.234 | 0.213 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | |
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 0.59 | 3,377,978 | 1.993 | 0.65 | 332,000 | 0.216 | 0.68 | 279,286 | 0.190 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 1.993 | - | - | 0.216 | - | - | 0.190 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 1.993 | - | - | 0.216 | - | - | 0.190 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.111 | - | - | 0.018 | - | - | 0.023 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.111 | - | - | 0.018 | - | - | 0.023 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 2.104 | - | - | 0.234 | - | - | 0.213 | - | - | - | - | - | - | - | - | - |

Remarks:
FY21 price increase is due to negotiated Economic Price Adjustment (EPA) and risk factor added for new vendor.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

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| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types |
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| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|------------------|---------------|---------------|---------------|-------------|---------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 1,822.196 | 63.049 | 58.116 | 29.716 | - | 29.716 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 1,822.196 | 63.049 | 58.116 | 29.716 | - | 29.716 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 1,822.196 | 63.049 | 58.116 | 29.716 | - | 29.716 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes .50 CAL ALL TYPES.

(E06700) CTG .50 Caliber M8, Armor Piercing Incendiary (API) Cartridge, packed single round, is used in the M107 and M82A1 Long Range Sniper Rifles. This cartridge is identified with a gray bullet tip. This is used in .50 Caliber Sniper training, a cost effective training round over the more expensive MK211 Long Range Sniper ammunition and minimizes training range limitations. This item is Code A, approved for service use.

(E07100) CTG .50 Caliber Cartridge Ball M33 is linked in 100 cartridge belts with the M9 link, for use in the M2, M2A1 and M3 Machine Gun. M33 is identified with a plain bullet tip. This item is Code A, approved for service use.

(E07200) CTG .50 Caliber Cartridge, Ball M33 and Cartridge, Tracer M17 linked 4 to 1 in a 100 cartridge belt with the M9 link for use in M2, M2A1 and M3 Machine Gun against unarmored targets. The tracer cartridge permits observation of the bullet's trajectory to the point of impact. M17 is identified with a brown bullet tip. M33 is identified with a plain bullet tip. This item is Code A, approved for service use.

(E07302) CTG .50 Caliber Blank Cartridge, M1A1 linked in a 100 cartridge belt with the M9 link for use in the M2 and M2A1 Machine Gun. This cartridge is a blank cartridge with a rosette crimp at the mouth used to simulate firing in training exercises in conjunction with the M19 Blank Firing Attachment (BFA). This item is Code A, approved for service use.

(E07900) CTG .50 Caliber High Pressure Test, M1, used in all .50 Caliber weapons for proof testing during manufacturing, test, and repair. The cartridge has a stannic stained (silvered) case. This item is Code A, approved for service use.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types |

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| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
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Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E06700 / CTG, .50cal API, M8, Single Round [A531] | | A | | - / 5.651 | - / 0.013 | - / 0.013 | - / 0.013 | - / - | - / 0.013 |
| P-5 | E07100 / CTG, .50cal Ball, M2 w/ M33 Link [A555] | P-5a | A | | - / 286.831 | - / 0.176 | - / 10.064 | - / 0.003 | - / - | - / 0.003 |
| P-5 | E07200 / CTG, .50cal 4 Ball M33 / 1 Tracer M17 w/M9 Link [A557] | P-5a, P-21 | A | | - / 1,400.523 | - / 58.693 | - / 39.255 | - / 24.918 | - / - | - / 24.918 |
| P-5 | E07302 / CTG, .50cal Blank, M1A1 w/M9 Link [A598] | P-5a | A | | - / 123.480 | - / 4.167 | - / 7.739 | - / 4.782 | - / - | - / 4.782 |
| P-5 | E07900 / CTG, .50cal High Pressure Test, M1, Single Round [A575] | | A | | - / 5.711 | - / - | - / 1.045 | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 1,822.196 | - / 63.049 | - / 58.116 | - / 29.716 | - / - | - / 29.716 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense (DoD) Instruction 3000.04 (Munitions Requirements Process) and Army Regulation (AR) 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base procurement dollars in the amount of \$29.700 million support procurement of 9.863 million rounds in support of the National Defense Strategy and Combatant Command (COCOM) requirements. The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or Foreign Military Sales (FMS) to increase procurement of .50 CAL ALL TYPES when possible.

FY 2022 Base dollars in the amount of \$0.016 million support the enduring COCOM requirement for procurement of 0.005 million .50 Cal Cartridges to deter potential adversaries and support the European Deterrence Initiative.

(E06700) CTG .50 Caliber M8, Armor Piercing Incendiary (API) Cartridge is a training standard item used in training and combat. FY 2022 Base procurement dollars in the amount of \$0.013 million support the enduring COCOM requirement for the procurement of 0.004 million .50 Caliber M8 bullets to deter potential adversaries and support the European Deterrence Initiative.
 Type classification date: 1944

(E07100) CTG .50 Caliber Cartridge Ball M33 is linked in 100 round belts with the M9 link. This is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$0.003 million support the enduring COCOM requirement for procurement of 0.001 million .50 Caliber Cartridge Ball M33 Cartridges to deter potential adversaries and support the European Deterrence Initiative.
 Type classification date: 1951

(E07200) CTG .50 Caliber Cartridge, Ball M33 and Cartridge, Tracer M17 linked 4 to 1 in a 100 round belt with the M9 link. This is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$24.918 million supports the procurement of

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>7.674 million M33 .50 Caliber Ball Cartridges linked with M17 Tracer Cartridges. In FY 2022, funding in the amount of \$0.225 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments. Type classification date: 1968</p> <p>(E07302) CTG .50 Caliber Blank Cartridge, M1A1 linked with the M9 link. This is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$4.782 million supports the procurement of 2.184 million .50 Caliber Blank Cartridge, M1A1 Cartridges. Type classification date: 1980</p> <p>(E07900) CTG .50 Caliber High Pressure Test, M1 (HPT) cartridge is a testing cartridge used exclusively for acceptance testing of .50 Cal weapons. The request supports annual training and builds a depot level in accordance with Army's procurement goals. Type classification date: 1926</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | Item Number / Title [DODIC]: E06700 / CTG, .50cal API, M8, Single Round [A531] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|--------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 5.651 | 0.013 | 0.013 | 0.013 | - | 0.013 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 5.651 | 0.013 | 0.013 | 0.013 | - | 0.013 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 5.651 | 0.013 | 0.013 | 0.013 | - | 0.013 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | - | - | 5.651 | 2.37 | 5,485 | 0.013 | 2.72 | 4,779 | 0.013 | 2.92 | 4,078 | 0.012 | - | - | - | 2.92 | 4,078 | 0.012 |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>5.651</i> | - | - | <i>0.013</i> | - | - | <i>0.013</i> | - | - | <i>0.012</i> | - | - | - | - | - | <i>0.012</i> |
| <i>Subtotal: Hardware Cost</i> | - | - | 5.651 | - | - | 0.013 | - | - | 0.013 | - | - | 0.012 | - | - | - | - | - | 0.012 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.001 | - | - | - | - | - | 0.001 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.001 | - | - | - | - | - | 0.001 |
| Gross/Weapon System Cost | - | - | 5.651 | - | - | 0.013 | - | - | 0.013 | - | - | 0.013 | - | - | - | - | - | 0.013 |

Remarks:

The price difference from FY 2020 through FY 2022 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021 and FY 2022.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | Item Number / Title [DODIC]: E07100 / CTG, .50cal Ball, M2 w/ M33 Link [A555] |

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| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
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| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|----------------|--------------|---------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 286.831 | 0.176 | 10.064 | 0.003 | - | 0.003 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 286.831 | 0.176 | 10.064 | 0.003 | - | 0.003 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 286.831 | 0.176 | 10.064 | 0.003 | - | 0.003 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 86.97 | 3,277,040 | 284.995 | 2.69 | 65,313 | 0.176 | 2.69 | 3,456,105 | 9.297 | 2.76 | 878 | 0.002 | - | - | - | 2.76 | 878 | 0.002 |
| Subtotal: Recurring Cost | - | - | 284.994 | - | - | 0.176 | - | - | 9.297 | - | - | 0.002 | - | - | - | - | - | 0.002 |
| Subtotal: Hardware Cost | - | - | 284.994 | - | - | 0.176 | - | - | 9.297 | - | - | 0.002 | - | - | - | - | - | 0.002 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.837 | - | - | 0.000 | - | - | 0.767 | - | - | 0.001 | - | - | - | - | - | 0.001 |
| Subtotal: Support - Production Engineering Cost | - | - | 1.837 | - | - | - | - | - | 0.767 | - | - | 0.001 | - | - | - | - | - | 0.001 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | 0.000 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Quality Assurance Cost | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 286.831 | - | - | 0.176 | - | - | 10.064 | - | - | 0.003 | - | - | - | - | - | 0.003 |

Remarks:

The price difference from FY 2020 through FY 2022 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021 and FY 2022. FY2021 complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | Item Number / Title [DODIC]: E07100 / CTG, .50cal Ball, M2 w/ M33 Link [A555] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | | | | Item Number / Title [DODIC]: E07100 / CTG, .50cal Ball, M2 w/ M33 Link [A555] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------|-------------|------|---|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| COMPLETE ROUND | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Oct 2020 | 55,516 | 2.69 | Y | | |
| COMPLETE ROUND | | 2020 | OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Jan 2020 | Oct 2020 | 9,797 | 2.69 | Y | | |
| COMPLETE ROUND | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 3,390,794 | 2.69 | Y | | |
| COMPLETE ROUND | | 2021 | OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 65,311 | 2.69 | Y | | |
| COMPLETE ROUND | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Oct 2022 | 878 | 2.76 | Y | | |

Remarks:
 FY 2021 and FY 2022 complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution The price difference from FY 2020 through FY 2021 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021 and FY 2022.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | Item Number / Title [DODIC]: E07200 / CTG, .50cal 4 Ball M33 / 1 Tracer M17 w/M9 Link [A557] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|------------------|---------------|---------------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 1,400.523 | 58.693 | 39.255 | 24.918 | - | 24.918 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 1,400.523 | 58.693 | 39.255 | 24.918 | - | 24.918 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 1,400.523 | 58.693 | 39.255 | 24.918 | - | 24.918 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 2.61 | 522,442K | 1,362.316 | 2.44 | 24,054,261 | 58.692 | 2.88 | 12,576,461 | 36.220 | 2.97 | 7,673,633 | 22.791 | - | - | - | 2.97 | 7,673,633 | 22.791 |
| Subtotal: Recurring Cost | - | - | 1,362.529 | - | - | 58.692 | - | - | 36.220 | - | - | 22.791 | - | - | - | - | - | 22.791 |
| Subtotal: Hardware Cost | - | - | 1,362.529 | - | - | 58.692 | - | - | 36.220 | - | - | 22.791 | - | - | - | - | - | 22.791 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 37.905 | - | - | 0.001 | - | - | 2.998 | - | - | 2.124 | - | - | - | - | - | 2.124 |
| Subtotal: Support - Production Engineering Cost | - | - | 37.905 | - | - | 0.001 | - | - | 2.998 | - | - | 2.124 | - | - | - | - | - | 2.124 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.088 | - | - | - | - | - | 0.037 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.088 | - | - | - | - | - | 0.037 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| Gross/Weapon System Cost | - | - | 1,400.523 | - | - | 58.693 | - | - | 39.255 | - | - | 24.918 | - | - | - | - | - | 24.918 |

Remarks:

The price difference from FY 2020 through FY 2022 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021 and FY 2022. FY2021 and FY 2022 complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution.

UNCLASSIFIED

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | Item Number / Title [DODIC]: E07200 / CTG, .50cal 4 Ball M33 / 1 Tracer M17 w/M9 Link [A557] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | | | | Item Number / Title [DODIC]: E07200 / CTG, .50cal 4 Ball M33 / 1 Tracer M17 w/M9 Link [A557] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND ^(†) | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Mar 2021 | 20,446,122 | 2.44 | Y | | |
| COMPLETE ROUND ^(†) | | 2020 | OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Jan 2020 | Oct 2020 | 3,608,139 | 2.44 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 10,689,992 | 2.88 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Mar 2022 | 1,886,469 | 2.88 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 6,138,907 | 2.97 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | OLIN WINCHESTER LLC / OXFORD, MS | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Oct 2022 | 1,534,726 | 2.97 | Y | | |

^(†) indicates the presence of a P-21

Remarks:

The price difference from FY 2020 through FY 2022 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021 and FY 2022. FY2021 and FY 2022 complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | | | | | | | | | | Item Number / Title [DODIC]: E07200 / CTG, .50cal 4 Ball M33 / 1 Tracer M17 w/M9 Link [A557] | | | | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | | B A L A N C E | |
|---|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|---------------------------------|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |

COMPLETE ROUND

| Prior Years Deliveries: 522442217 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|-------------|--------------|--------------|-------------|--------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 20.446 | .000 | 20.446 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2020 | ARMY | 3.608 | .000 | 3.608 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2021 | ARMY | 10.690 | .000 | 10.690 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2021 | AF (+) | .143 | .000 | .143 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2021 | ARMY | 1.886 | .000 | 1.886 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2021 | NAVSEA (+) | .417 | .000 | .417 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2021 | Total | 2.446 | .000 | 2.446 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | AF (+) | .741 | .000 | .741 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | ARMY | 6.139 | .000 | 6.139 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | CG (+) | .067 | .000 | .067 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | NAVSEA (+) | 2.154 | .000 | 2.154 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | NSOF (+) | .170 | .000 | .170 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | Total | 9.271 | .000 | 9.271 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 2022 | ARMY | 1.535 | .000 | 1.535 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | | | | | | | | | | Item Number / Title [DODIC]: E07200 / CTG, .50cal 4 Ball M33 / 1 Tracer M17 w/M9 Link [A557] | | | | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | | B A L A N C E | | |
|---|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|--|---------------------------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |

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|-----------------------------------|------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------|------|------|------|------|------|------|------|------|------|------|--------------|------|
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 522442217 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 20.446 | 11.927 | 8.519 | 1.704 | 1.704 | 1.704 | 1.704 | 1.704 | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2020 | ARMY | 3.608 | 3.608 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2021 | ARMY | 10.690 | .000 | 10.690 | .486 | .486 | .486 | .486 | .486 | 1.180 | 1.180 | 1.180 | 1.180 | 1.180 | 1.180 | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2021 | AF (‡) | .143 | .012 | .131 | .012 | .012 | .012 | .012 | .012 | .012 | .012 | .012 | .012 | .012 | .012 | - | - | - | - | - | - | | | | | | | | | | | | | .000 |
| 2 | 2021 | ARMY | 1.886 | .000 | 1.886 | - | - | - | - | - | .157 | .157 | .157 | .157 | .157 | .157 | .157 | .157 | .157 | .157 | .157 | .157 | | | | | | | | | | | | | .000 |
| 2 | 2021 | NAVSEA (‡) | .417 | .035 | .382 | .035 | .035 | .035 | .035 | .035 | .035 | .035 | .035 | .035 | .035 | .035 | - | - | - | - | - | - | | | | | | | | | | | | .000 | |
| 2 | 2021 | Total | 2.446 | .047 | 2.400 | .047 | .047 | .047 | .047 | .047 | .204 | .204 | .204 | .204 | .204 | .204 | .157 | .157 | .157 | .157 | .157 | .157 | - | - | - | - | - | - | - | - | - | - | - | .000 | |
| 1 | 2022 | AF (‡) | .741 | .000 | .741 | | | | | | A - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | .309 | |
| 1 | 2022 | ARMY | 6.139 | .000 | 6.139 | | | | | | A - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | 2.558 | |
| 1 | 2022 | CG (‡) | .067 | .000 | .067 | | | | | | A - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | .028 | |
| 1 | 2022 | NAVSEA (‡) | 2.154 | .000 | 2.154 | | | | | | A - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | .898 | |
| 1 | 2022 | NSOF (‡) | .170 | .000 | .170 | | | | | | A - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | .071 | |
| 1 | 2022 | Total | 9.271 | .000 | 9.271 | | | | | | - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | 3.863 | |
| 3 | 2022 | ARMY | 1.535 | .000 | 1.535 | | | | | | A - | - | - | - | - | - | - | - | - | - | .128 | .128 | .128 | .128 | .128 | .128 | .128 | .128 | .128 | .128 | .128 | .128 | .128 | .000 | |

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| O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | | | | | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | | | | | | | | | | | | | | Item Number / Title [DODIC]: E07200 / CTG, .50cal 4 Ball M33 / 1 Tracer M17 w/M9 Link [A557] | | | | | | | | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | | Fiscal Year 2024 | | | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | | | B A L A N C E | |
|---|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|---------------------------------|--|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------|------|------|
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 522442217 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 20.446 | 20.446 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2020 | ARMY | 3.608 | 3.608 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2021 | ARMY | 10.690 | 10.690 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2021 | AF (‡) | .143 | .143 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 2 | 2021 | ARMY | 1.886 | 1.886 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 2 | 2021 | NAVSEA (‡) | .417 | .417 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 2 | 2021 | Total | 2.446 | 2.446 | .000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | |
| 1 | 2022 | AF (‡) | .741 | .432 | .309 | .062 | .062 | .062 | .062 | .062 | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2022 | ARMY | 6.139 | 3.581 | 2.558 | .512 | .512 | .512 | .512 | .512 | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2022 | CG (‡) | .067 | .039 | .028 | .006 | .006 | .006 | .006 | .006 | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2022 | NAVSEA (‡) | 2.154 | 1.257 | .898 | .180 | .180 | .180 | .180 | .180 | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2022 | NSOF (‡) | .170 | .099 | .071 | .014 | .014 | .014 | .014 | .014 | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2022 | Total | 9.271 | 5.408 | 3.863 | .773 | .773 | .773 | .773 | .773 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | |
| 3 | 2022 | ARMY | 1.535 | 1.535 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|--|--|--|
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |
|--|--|--|--|--|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|--|--|--|

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types |
| | | Item Number / Title [DODIC]: E07200 / CTG, .50cal 4 Ball M33 / 1 Tracer M17 w/M9 Link [A557] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | OLIN WINCHESTER, LLC - LCAAP - INDEPENDENCE, MO | 1,680 | 19,400,000 | 67,500,000 | 6 | 6 | 12 | 18 | 6 | 6 | 6 | 12 |
| 2 | OLIN CORP WINCHESTER DIVISION - EAST ALTON, IL | 1,680 | 19,400,000 | 67,500,000 | 6 | 6 | 12 | 18 | 6 | 6 | 6 | 12 |
| 3 | OLIN WINCHESTER LLC - OXFORD, MS | 1,680 | 19,400,000 | 67,500,000 | 6 | 6 | 12 | 18 | 6 | 6 | 6 | 12 |

(*) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | Item Number / Title [DODIC]: E07302 / CTG, .50cal Blank, M1A1 w/M9 Link [A598] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 123.480 | 4.167 | 7.739 | 4.782 | - | 4.782 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 123.480 | 4.167 | 7.739 | 4.782 | - | 4.782 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 123.480 | 4.167 | 7.739 | 4.782 | - | 4.782 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round ^(t) | 1.03 | 117,069K | 119.996 | 1.49 | 2,490,423 | 3.711 | 1.87 | 3,738,429 | 6.991 | 1.94 | 2,184,188 | 4.237 | - | - | - | 1.94 | 2,184,188 | 4.237 |
| Subtotal: Recurring Cost | - | - | 119.996 | - | - | 3.711 | - | - | 6.991 | - | - | 4.237 | - | - | - | - | - | 4.237 |
| Subtotal: Hardware Cost | - | - | 119.996 | - | - | 3.711 | - | - | 6.991 | - | - | 4.237 | - | - | - | - | - | 4.237 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 3.480 | - | - | 0.453 | - | - | 0.741 | - | - | 0.538 | - | - | - | - | - | 0.538 |
| Subtotal: Support - Production Engineering Cost | - | - | 3.480 | - | - | 0.453 | - | - | 0.741 | - | - | 0.538 | - | - | - | - | - | 0.538 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.005 | - | - | 0.004 | - | - | 0.007 | - | - | 0.007 | - | - | - | - | - | 0.007 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.005 | - | - | 0.004 | - | - | 0.007 | - | - | 0.007 | - | - | - | - | - | 0.007 |
| Gross/Weapon System Cost | - | - | 123.480 | - | - | 4.167 | - | - | 7.739 | - | - | 4.782 | - | - | - | - | - | 4.782 |

Remarks:

The price difference from FY 2020 through FY 2022 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021 and FY 2022.

^(t) indicates the presence of a P-5a

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|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | | | | Item Number / Title [DODIC]: E07302 / CTG, .50cal Blank, M1A1 w/M9 Link [A598] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------|-------------|------|---|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| Complete Round | | 2020 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Oct 2020 | 2,490,423 | 1.49 | Y | | |
| Complete Round | | 2021 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Oct 2021 | 3,738,429 | 1.87 | Y | | |
| Complete Round | | 2022 | OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Oct 2022 | 2,184,188 | 1.94 | Y | | |

Remarks:
The price difference from FY 2020 through FY 2022 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2020 versus EPA allowable on contract in FY 2021 and FY 2022.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 1722E08000 / CTG, .50 Cal, All Types | Item Number / Title [DODIC]: E07900 / CTG, .50cal High Pressure Test, M1, Single Round [A575] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|---|--------------|----------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 5.711 | - | 1.045 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 5.711 | - | 1.045 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 5.711 | - | 1.045 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | |
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 87.67 | 59,122 | 5.183 | - | - | - | 4.01 | 244,402 | 0.980 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 5.183 | - | - | - | - | - | 0.980 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 5.183 | - | - | - | - | - | 0.980 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.528 | - | - | - | - | - | 0.065 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.528 | - | - | - | - | - | 0.065 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 5.711 | - | - | - | - | - | 1.045 | - | - | - | - | - | - | - | - | - |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | P-1 Line Item Number / Title: 2382E08900 / CTG, 20mm, All Types |
|---|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|---------------|---------------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 160.672 | 27.432 | 31.708 | 4.371 | - | 4.371 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 160.672 | 27.432 | 31.708 | 4.371 | - | 4.371 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 160.672 | 27.432 | 31.708 | 4.371 | - | 4.371 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes 20MM ALL TYPES:

(E08909) The 20MM M940 Multi-Purpose Tracer - Self-Destruct (MPT-SD) cartridge, w/ MK7 Link, is an improved, pyrotechnically initiated, 20mm High Explosive cartridge. The nose consists of tungsten penetrators designed to pierce incoming threats prior to initiation. The projectile consists of a heavy walled steel body charged with an explosive mix and an incendiary mix. The M940 is a force protection munition in the M61 cannon of the Land Based Phalanx Weapon System (LPWS) for Counter-Rocket, Artillery and Mortar (C-RAM) application. The projectile self-destructs if it misses its intended target, minimizing collateral surface damage when engaging airborne targets. The new version of the M940 (JUONs) has been enhanced for improved lethality against larger rocket threats. This item is Code A, approved for service use.

Justification:

FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base procurement dollars in the amount of \$4.371 million support procurement of 0.028 million cartridges.

(E08909) The 20MM M940 Multi-Purpose Tracer - Self-Destruct (MPT-SD) is a war reserve item used in combat. The FY 2022 request builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$4.371 million support the procurement of 0.028 million cartridges.

In FY 2022, funding in the amount of \$0.225 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments.

Type classification date: 1989

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | P-1 Line Item Number / Title: 2650E08200 / CTG, 25mm, All Types |
|---|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|--------------|--------------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 460.158 | 8.990 | 9.111 | - | - | - | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 460.158 | 8.990 | 9.111 | - | - | - | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 460.158 | 8.990 | 9.111 | - | - | - | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes 25MM ALL TYPES:

(E08203) The 25MM M793 Target Practice - Tracer (TP-T) Cartridge is a ballistically matched training round that simulates the tactical M792 25mm High Explosive Incendiary - Tracer (HEI-T) Cartridge. The M793 supports gunnery training for the Army's Bradley Fighting Vehicles, the United States Marine Corps (USMC) Light Armored Vehicles, and the Navy's MK38 Deck Gun. The M793 is a percussion primed round. It is packed for the Army and USMC in two linked belts of 15 cartridges each into the PA125 Container. It is packed for the Navy in linked belts of 55 cartridges in the CNU405 Container. The M28 metal link is used to belt M793 cartridges. This item is Code A, approved for service use.

Justification:

FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

(E08203) The 25MM M793 Target Practice - Tracer (TP-T) is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with Army's procurement goals.

Type classification date: 1979

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types |
|---|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|------------------|---------------|---------------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 1,601.933 | 90.236 | 80.796 | 34.511 | - | 34.511 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 1,601.933 | 90.236 | 80.796 | 34.511 | - | 34.511 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 1,601.933 | 90.236 | 80.796 | 34.511 | - | 34.511 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes 30MM ALL TYPES:

(E07306) 30x173mm MK239 Target Practice with Tracer (TP-T) cartridge is a Navy qualified training cartridge that is ballistically matched to the MK238 HEI-T. The MK239 cartridge consists of an inert steel projectile, a glass-reinforced nylon rotating band, a tracer, AFP-001 base grain propellant, an M36A2 percussion primer, and an aluminum cartridge case. The MK239 cartridges are packed 30 cartridges per M592 ammunition container. The Army has completed the safety qualification of the MK239 which supported the Urgent Materiel Release for the Stryker Infantry Carrier Vehicle. This item is Code B, not approved for service use.

(E07406) 30x173mm MK238 High Explosive Incendiary with Tracer (HEI-T) cartridge is a Navy qualified tactical cartridge consisting of a steel projectile body assembly crimped into an aluminum cartridge case, PBXN-5 explosive, a zirconium pellet, M758-LD fuze, a tracer, AFP-001 propellant, and an M36A2 percussion primer. The MK238 cartridges are packed 30 cartridges per M592 container. The Army has completed the safety qualification of the MK238 which supported the Urgent Materiel Release for the Stryker Infantry Carrier Vehicle. This item is Code B, not approved for service use.

(E07610) 30x173mm MK310 Programmable Air Burst Munition with Tracer (PABM-T) cartridge is a Navy qualified tactical high explosive cartridge that has three different ways of functioning, which include point detonate, point detonation delay, and air burst, and also has a self-destruct feature if the projectile misses its intended target. The MK310 cartridge consists of a warhead loaded with explosive, a fuze that can be programmed to function in one of three ways as mentioned above, AFP-001 propellant, an M36A2 percussion primer, and an aluminum cartridge case. The MK310 cartridges are packed 30 cartridges per M592 ammunition container. The Army has completed the safety qualification of the MK310 which supported the Urgent Materiel Release for the Stryker Infantry Carrier Vehicle. This item is Code B, not approved for service use.

(E09191) 30x173mm MK317 is a Target Practice Discarding Sabot with Tracer (TPDS-T) cartridge. The MK317 cartridge consists of an inert projectile, molded plastic sabot, a pusher base, a tracer, propellant, an M36A2 percussion primer, and an aluminum cartridge case. The MK317 cartridges are packed 30 cartridges per M592 ammunition container. The Army has completed the safety qualification of the MK317 which supported the Urgent Materiel Release for the Stryker Infantry Carrier Vehicle. This item is Code B, not approved for service use.

(E09292) 30x173mm MK258 Armor Piercing Fin Stabilized Discarding Sabot with Tracer (APFSDS-T) cartridge is a Navy qualified tactical cartridge consisting of a tungsten nickel cobalt long-rod penetrator sub-projectile held in a three-petal aluminum sabot, a plastic nose cap and obturator, a tracer, propellant, a percussion primer, and a steel cartridge case. The MK258 cartridges are packed 30 cartridges per M592

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>ammunition container. The Army has completed the safety qualification of the MK258 which supported the Urgent Materiel Release for the Stryker Infantry Carrier Vehicle. This item is Code B, not approved for service use.</p> <p>(E09900) 30mm M789 High Explosive Dual Purpose (HEDP) cartridge is the only qualified combat cartridge for use in the Apache Helicopter's M230 Chain Gun. It is also used by the 160th Special Operations Aviation Regiment (SOAR), fired from the MH-60L Blackhawk helicopter. The M789 cartridge consists of a projectile containing explosive, a shaped charge liner, an M759 point-detonating fuze, aluminum cartridge case, propellant and a PA520 electric primer. The shaped charge allows the M789 to defeat light armor, and the steel projectile body provides an anti-personnel capability. M789 cartridges are packed in Bulk Ammunition Strips (BAS), 110 cartridges per M592 container. This item is Code A, approved for service use. 30mm XM1198 High Explosive Dual Purpose with Self Destruct (HEDP-SD) cartridge is the only qualified combat cartridge for use in the XM914E1 Chain Gun used on the Mobile Low, slow, small Intercept and Defeat System (MLIDS) and Initial Maneuver Short Range Air Defense (IM-SHORAD) ground vehicle platforms in response to Joint Urgent Operational Need (JUON) CC-0558. The XM1198 cartridge consists of a projectile containing explosive, a shaped charge liner, an XM1169 point-detonating, self destructing fuze, aluminum cartridge case, propellant and an M36A2 percussion primer. The shaped charge allows the XM1198 to defeat light armor, and the steel projectile body provides an anti-personnel and Counter Unmanned Aerial Systems defeat capability. The self destruct fuze allows for reduced collateral damage when engaging aerial targets. XM1198 cartridges are packed in a linked assembly with 72 cartridges per M592 container. This item is Code B, not approved for service use.</p> <p>(E10100) 30mm M788 Target Practice (TP) cartridge is the only qualified training cartridge for use in the Apache and Blackhawk Helicopters' M230 Chain Gun. The M788 is a ballistic match to the M789 HEDP and consists of an inert projectile, propellant, utilizes a PA520 electric primer and has a lightweight aluminum cartridge case. M788 cartridges are packed in Bulk Ammunition Strips (BAS), 110 cartridges per M592 container. This item is Code A, approved for service use. 30mm XM950 Target Practice (TP) cartridge is the only qualified training cartridge for use in the XM914E1 Chain Gun used on the Mobile Low, slow, small Intercept and Defeat System (MLIDS) and Initial Maneuver Short Range Air Defense (IM-SHORAD) ground vehicle platforms in response to Joint Urgent Operational Need (JUON) CC-0558. The XM950 is a ballistic match to the XM1198 HEDP-SD and consists of an inert projectile, propellant, utilizes a M36A2 percussion primer and has an aluminum cartridge case. XM950 cartridges are packed in a linked assembly with 72 cartridges per M592 container. This item is Code B, not approved for service use.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition

P-1 Line Item Number / Title:
2938ER8120 / CTG, 30mm, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E07306 / CTG, 30mm TP-T, MK239, Single [AC25] | | B | | - / 29.673 | - / 8.528 | - / 5.997 | - / 0.823 | - / - | - / 0.823 |
| P-5 | E07406 / CTG, 30mm Hi Expl Incendry-T(HEI-T), Mk238 Series [AC27] | | B | | - / 33.643 | - / 5.976 | - / 8.405 | - / - | - / - | - / - |
| P-5 | E07610 / CTG, 30MM, Progmabl Air Burst Mun, Mk310, Linked [AC47] | | B | | - / 1.765 | - / 13.412 | - / 14.550 | - / - | - / - | - / - |
| P-5 | E09191 / CTG, 30mm TPDS-T, MK317 (SABOT Trng), Single [AC28] | | B | | - / 35.705 | - / 9.200 | - / 9.012 | - / - | - / - | - / - |
| P-5 | E09292 / CTG, 30mm APFSDS-T, MK258, Single [AC26] | | B | | - / 48.042 | - / 21.032 | - / 14.464 | - / - | - / - | - / - |
| P-5 | E09900 / CTG, 30mm HEDP, M789, Single, f/Gun M230 [B129] | P-5a, P-21 | A | | - / 997.323 | - / 5.221 | - / 5.323 | - / 12.699 | - / - | - / 12.699 |
| P-5 | E10100 / CTG, 30mm TP, M788, Single, f/Gun M230 [B118] | P-5a, P-21 | A | | - / 455.782 | - / 26.867 | - / 23.045 | - / 20.989 | - / - | - / 20.989 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 1,601.933 | - / 90.236 | - / 80.796 | - / 34.511 | - / - | - / 34.511 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Base procurement dollars in the amount of \$18.085 million support procurement of 0.704 million cartridges.

FY 2022 Base dollars in the amount of \$0.826 million support enduring COCOM requirements for European Deterrence Initiative.

FY 2022 Base dollars in the amount of \$15.600 million support JUON CC-0558 Direct War requirements for Operation Inherent Resolve.

(E07306) 30x173mm MK239 Target Practice with Tracer (TP-T) is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2022 Base dollars in the amount of \$0.826 million support the enduring COCOM requirement for procurement of 0.008 million MK239 cartridges to deter potential adversaries.
 Type classification date: PENDING

(E07406) 30x173mm MK238 High Explosive Incendiary with Tracer (HEI-T) is a war reserve item used in combat. The request builds a war reserve inventory in accordance with Army's procurement goals.
 Type classification date: PENDING

(E07610) 30x173mm MK310 Programmable Air Burst Munition with Tracer (PABM-T) is a war reserve item used in combat. The request builds a war reserve inventory in accordance with Army's procurement goals.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| Type classification date: PENDING | | |
| (E09191) 30x173mm MK317 Target Practice Discarding Sabot with Tracer (TPDS-T) is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with Army's procurement goals. Type classification date: PENDING | | |
| (E09292) 30x173mm MK258 Armor Piercing Fin Stabilized Discarding Sabot with Tracer (APFSDS-T) is a war reserve item used in combat. The request builds a war reserve inventory in accordance with Army's procurement goals. Type classification date: PENDING | | |
| (E09900) 30mm M789 High Explosive Dual Purpose (HEDP) is a war reserve item used in combat. 30mm XM1198 High Explosive Dual Purpose with Self Destruct (HEDP-SD) is a war reserve item used in combat. The FY 2022 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$3.339 million support the procurement of 0.025 million M789 cartridges. FY 2022 Base procurement dollars in the amount of \$9.360 million support Direct War requirements. Funds will procure 0.047 million 30mm XM1198 High Explosive Dual Purpose with Self Destruct (HEDP-SD) cartridges in support of Joint Urgent Operational Need (JUON) CC-0558 ammunition requirements for use in the XM914E1 Chain Gun. M789 Type classification date: 1982 XM1198 Type classification date: PENDING | | |
| (E10100) 30mm M788 Target Practice (TP) is a training unique item not used in combat. 30mm XM950 Target Practice (TP) is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$14.749 million support the procurement of 0.447 million cartridges. FY 2022 Base procurement dollars in the amount of \$6.240 million support Direct War requirements. Funds will procure 0.177 million 30mm XM950 Target Practice (TP) cartridges in support of Joint Urgent Operational Need (JUON) CC-0558 ammunition requirements for use in the XM914E1 Chain Gun. In FY 2022, funding in the amount of \$0.225 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments. M788 Type classification date: 1982 XM950 Type classification date: PENDING | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | Item Number / Title [DODIC]: E07306 / CTG, 30mm TP-T, MK239, Single [AC25] |

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| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
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| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 29.673 | 8.528 | 5.997 | 0.823 | - | 0.823 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 29.673 | 8.528 | 5.997 | 0.823 | - | 0.823 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 29.673 | 8.528 | 5.997 | 0.823 | - | 0.823 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 46.17 | 565,162 | 26.091 | 53.56 | 137,801 | 7.381 | 83.98 | 56,987 | 4.786 | 87.32 | 8,425 | 0.736 | - | - | - | 87.32 | 8,425 | 0.736 |
| <i>Subtotal: Recurring Cost</i> | - | - | 26.091 | - | - | 7.381 | - | - | 4.786 | - | - | 0.736 | - | - | - | - | - | 0.736 |
| <i>Subtotal: Hardware Cost</i> | - | - | 26.091 | - | - | 7.381 | - | - | 4.786 | - | - | 0.736 | - | - | - | - | - | 0.736 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 1.326 | - | - | - | - | - | 0.445 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 1.326 | - | - | - | - | - | 0.445 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.233 | - | - | 1.144 | - | - | 0.766 | - | - | 0.083 | - | - | - | - | - | 0.083 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 2.233 | - | - | 1.144 | - | - | 0.766 | - | - | 0.083 | - | - | - | - | - | 0.083 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.023 | - | - | 0.003 | - | - | - | - | - | 0.004 | - | - | - | - | - | 0.004 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.023 | - | - | 0.003 | - | - | - | - | - | 0.004 | - | - | - | - | - | 0.004 |
| Gross/Weapon System Cost | - | - | 29.673 | - | - | 8.528 | - | - | 5.997 | - | - | 0.823 | - | - | - | - | - | 0.823 |

Remarks:

The price difference between FY 2020 and FY 2021 is due to the step ladder pricing matrix based on quantity ranges, as well as the negotiated Economic Price Adjustment (EPA) versus EPA allowable on contract.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | Item Number / Title [DODIC]: E07306 / CTG, 30mm TP-T, MK239, Single [AC25] |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | MDAP/MAIS Code: |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | Item Number / Title [DODIC]: E07406 / CTG, 30mm Hi Expl Incendry-T(HEI-T), Mk238 Series [AC27] |

| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 33.643 | 5.976 | 8.405 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 33.643 | 5.976 | 8.405 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 33.643 | 5.976 | 8.405 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 125.37 | 232,291 | 29.122 | 183.72 | 29,424 | 5.406 | 267.80 | 26,990 | 7.228 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 29.122 | - | - | 5.406 | - | - | 7.228 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 29.122 | - | - | 5.406 | - | - | 7.228 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 1.886 | - | - | - | - | - | 0.615 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 1.886 | - | - | - | - | - | 0.615 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.611 | - | - | 0.567 | - | - | 0.558 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 2.611 | - | - | 0.567 | - | - | 0.558 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.023 | - | - | 0.004 | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.023 | - | - | 0.004 | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 33.643 | - | - | 5.976 | - | - | 8.405 | - | - | - | - | - | - | - | - | - |

Remarks:
The price difference from FY 2020 and FY 2021 is due to the step ladder pricing matrix based on quantity ranges, as well as the negotiated Economic Price Adjustment (EPA) versus EPA allowable on contract.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | Item Number / Title [DODIC]: E07610 / CTG, 30MM, Progrmabl Air Burst Mun, Mk310, Linked [AC47] |

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| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|---------------|---------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 1.765 | 13.412 | 14.550 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 1.765 | 13.412 | 14.550 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 1.765 | 13.412 | 14.550 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 968.64 | 1,278 | 1,238 | 1,069.70 | 11,952 | 12,785 | 1,091.10 | 11,374 | 12,410 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 1,238 | - | - | 12,785 | - | - | 12,410 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 1,238 | - | - | 12,785 | - | - | 12,410 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | 1.157 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | - | - | - | - | - | - | 1.157 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.517 | - | - | 0.620 | - | - | 0.983 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 0.517 | - | - | 0.620 | - | - | 0.983 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.010 | - | - | 0.007 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.010 | - | - | 0.007 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 1.765 | - | - | 13.412 | - | - | 14.550 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | Item Number / Title [DODIC]: E09191 / CTG, 30mm TPDS-T, MK317 (SABOT Trng), Single [AC28] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 35.705 | 9.200 | 9.012 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 35.705 | 9.200 | 9.012 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 35.705 | 9.200 | 9.012 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 73.98 | 419,439 | 31.030 | 127.57 | 65,940 | 8.412 | 135.88 | 56,152 | 7.630 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 31.030 | - | - | 8.412 | - | - | 7.630 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 31.030 | - | - | 8.412 | - | - | 7.630 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 1.846 | - | - | - | - | - | 0.304 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 1.846 | - | - | - | - | - | 0.304 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.806 | - | - | 0.782 | - | - | 1.075 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 2.806 | - | - | 0.782 | - | - | 1.075 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.023 | - | - | 0.006 | - | - | 0.003 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.023 | - | - | 0.006 | - | - | 0.003 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 35.705 | - | - | 9.200 | - | - | 9.012 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | Item Number / Title [DODIC]: E09292 / CTG, 30mm APFSDS-T, MK258, Single [AC26] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|---------------|---------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 48.042 | 21.032 | 14.464 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 48.042 | 21.032 | 14.464 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 48.042 | 21.032 | 14.464 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 495.05 | 84,915 | 42.037 | 522.87 | 38,418 | 20.088 | 762.61 | 17,149 | 13.078 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 42.037 | - | - | 20.088 | - | - | 13.078 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 42.037 | - | - | 20.088 | - | - | 13.078 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 2.707 | - | - | - | - | - | 0.709 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | 2.707 | - | - | - | - | - | 0.709 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 3.263 | - | - | 0.938 | - | - | 0.674 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 3.263 | - | - | 0.938 | - | - | 0.674 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.036 | - | - | 0.006 | - | - | 0.003 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.036 | - | - | 0.006 | - | - | 0.003 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 48.042 | - | - | 21.032 | - | - | 14.464 | - | - | - | - | - | - | - | - | - |

Remarks:

The price difference from FY 2020 and FY 2021 is due to the step ladder pricing matrix based on quantity ranges, as well as the negotiated Economic Price Adjustment (EPA) versus EPA allowable on contract.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | Item Number / Title [DODIC]: E09900 / CTG, 30mm HEDP, M789, Single, f/Gun M230 [B129] |

| | | | | | | | |
|---|--|--------------------|----------------|------------------------|---------------------|--------------------|----------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 997.323 | 5.221 | 5.323 | 12.699 | - | 12.699 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 997.323 | 5.221 | 5.323 | 12.699 | - | 12.699 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 997.323 | 5.221 | 5.323 | 12.699 | - | 12.699 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND M789 ^(†) | 74.63 | 13,239,194 | 988.028 | 121.41 | 31,075 | 3.773 | 130.48 | 38,768 | 5.058 | 128.34 | 24,776 | 3.180 | - | - | - | 128.34 | 24,776 | 3.180 |
| COMPLETE ROUND XM1198 HEDP-SD ^(†) | - | - | - | - | - | - | - | - | - | 186.37 | 46,898 | 8.740 | - | - | - | 186.37 | 46,898 | 8.740 |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>988.028</i> | - | - | <i>3.773</i> | - | - | <i>5.058</i> | - | - | <i>11.920</i> | - | - | - | - | - | <i>11.920</i> |
| <i>Subtotal: Hardware Cost</i> | - | - | <i>988.028</i> | - | - | <i>3.773</i> | - | - | <i>5.058</i> | - | - | <i>11.920</i> | - | - | - | - | - | <i>11.920</i> |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | - | - | - | 0.488 | - | - | - | - | - | 0.488 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | - | - | - | <i>0.488</i> | - | - | - | - | - | <i>0.488</i> |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Reliability | - | - | 0.050 | - | - | 1.188 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | <i>0.050</i> | - | - | <i>1.188</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 9.116 | - | - | 0.253 | - | - | 0.258 | - | - | 0.284 | - | - | - | - | - | 0.284 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | <i>9.116</i> | - | - | <i>0.253</i> | - | - | <i>0.258</i> | - | - | <i>0.284</i> | - | - | - | - | - | <i>0.284</i> |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.129 | - | - | 0.007 | - | - | 0.006 | - | - | 0.007 | - | - | - | - | - | 0.007 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |
| Item Number / Title [DODIC]: E09900 / CTG, 30mm HEDP, M789, Single, f/Gun M230 [B129] | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.129 | - | - | 0.007 | - | - | 0.006 | - | - | 0.007 | - | - | - | - | - | 0.007 |
| Gross/Weapon System Cost | - | - | 997.323 | - | - | 5.221 | - | - | 5.323 | - | - | 12.699 | - | - | - | - | - | 12.699 |

Remarks:

FY 2022 funding includes Base funding in support of a new round, the 30mm XM1198 High Explosive Dual Purpose with Self Destruct (HEDP-SD) cartridge which is a different version of the M789. The increased cost is as a result of the modified fuze that allows for self destruct in support of the Mobile Low, slow, small Intercept and Defeat System (MLIDS) and Initial Maneuver Short Range Air Defense (IM-SHORAD) ground vehicle platforms.

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | | | | Item Number / Title [DODIC]: E09900 / CTG, 30mm HEDP, M789, Single, f/Gun M230 [B129] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|---|--------------------------------------|----------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND M789 | | 2020 | GENERAL DYNAMICS ORD & TAC / MARION, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Mar 2021 | 31,075 | 121.41 | Y | | |
| COMPLETE ROUND M789 | | 2021 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Mar 2022 | 19,384 | 130.48 | Y | | |
| COMPLETE ROUND M789 | | 2021 | GENERAL DYNAMICS ORD & TAC / MARION, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Mar 2022 | 19,384 | 130.48 | Y | | |
| COMPLETE ROUND M789 | | 2022 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 12,388 | 128.34 | Y | | |
| COMPLETE ROUND M789 | | 2022 | GENERAL DYNAMICS ORD & TAC / MARION, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 12,388 | 128.34 | Y | | |
| COMPLETE ROUND XM1198 HEDP-SD ^(†) | | 2022 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 23,449 | 186.37 | Y | | |
| COMPLETE ROUND XM1198 HEDP-SD ^(†) | | 2022 | GENERAL DYNAMICS ORD & TAC / MARION, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 23,449 | 186.37 | Y | | |

^(†) indicates the presence of a P-21

Remarks:

M789 is part of a combined 20mm, 25mm, 30mm contract FY 2018 - FY 2023. Quantity split will be determined between two contractors in the year of execution.
XM1198 will be added to the Medium Caliber Family Buy contracts (FY 2018 - FY 2023). Quantity split will be determined between two contractors in the year of execution.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | | | | | | | | | | Item Number / Title [DODIC]: E09900 / CTG, 30mm HEDP, M789, Single, f/Gun M230 [B129] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | | B A L A N C E | | |
|--|------------------|-------------|--------------|---------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|---------------------------------|--|---------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |
| COMPLETE ROUND XM1198 HEDP-SD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | ARMY | 23.449 | .000 | 23.449 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 23.449 |
| | 1 | 2022 | MC (†) | 12.785 | .000 | 12.785 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12.785 |
| | 1 | 2022 | Total | 36.234 | .000 | 36.234 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 36.234 |
| | 2 | 2022 | ARMY | 23.449 | .000 | 23.449 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 23.449 |
| | 2 | 2022 | MC (†) | 12.785 | .000 | 12.785 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12.785 |
| | 2 | 2022 | Total | 36.234 | .000 | 36.234 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 36.234 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | | | | | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | | | | | | | | | | | | | | Item Number / Title [DODIC]: E09900 / CTG, 30mm HEDP, M789, Single, f/Gun M230 [B129] | | | | | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | B A L A N C E | | |
|--|------------------|-------------|--------------|---------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|---------------|---|---|---|---------------------------------|---|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |
| COMPLETE ROUND XM1198 HEDP-SD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | ARMY | 23.449 | .000 | 23.449 | | | | | | | | | | | | | | | | | | | | | | | 8.803 | 14.646 | | | | | | .000 |
| | 1 | 2022 | MC (†) | 12.785 | .000 | 12.785 | | | | | | | | | | | | | | | | | | | | | | | 6.197 | 6.588 | | | | | | .000 |
| | 1 | 2022 | Total | 36.234 | .000 | 36.234 | | | | | | | | | | | | | | | | | | | | | | | 15.000 | 21.234 | - | - | - | - | - | .000 |
| | 2 | 2022 | ARMY | 23.449 | .000 | 23.449 | | | | | | | | | | | | | | | | | | | | | | | 8.803 | 14.646 | | | | | | .000 |
| | 2 | 2022 | MC (†) | 12.785 | .000 | 12.785 | | | | | | | | | | | | | | | | | | | | | | | 6.197 | 6.588 | | | | | | .000 |
| | 2 | 2022 | Total | 36.234 | .000 | 36.234 | | | | | | | | | | | | | | | | | | | | | | | 15.000 | 21.234 | - | - | - | - | - | .000 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types |
| | | Item Number / Title [DODIC]: E09900 / CTG, 30mm HEDP, M789, Single, f/Gun M230 [B129] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|--|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | NORTHROP GRUMMAN INNOVATION - PLYMOUTH, MN | 100 | 30,000 | 65,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |
| 2 | GENERAL DYNAMICS ORD & TAC - MARION, IL | 100 | 30,000 | 65,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |

(†) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | Item Number / Title [DODIC]: E10100 / CTG, 30mm TP, M788, Single, f/Gun M230 [B118] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|---------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 455.782 | 26.867 | 23.045 | 20.989 | - | 20.989 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 455.782 | 26.867 | 23.045 | 20.989 | - | 20.989 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 455.782 | 26.867 | 23.045 | 20.989 | - | 20.989 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND M788 TP ^(f) | 18.49 | 23,629,027 | 436.972 | 23.38 | 1,068,010 | 24.970 | 27.60 | 753,642 | 20.801 | 27.96 | 447,364 | 12.508 | - | - | - | 27.96 | 447,364 | 12.508 |
| COMPLETE ROUND XM950 PRACTICE ^(f) | - | - | - | - | - | - | - | - | - | 32.44 | 176,942 | 5.740 | - | - | - | 32.44 | 176,942 | 5.740 |
| <i>Subtotal: Recurring Cost</i> | - | - | 436.972 | - | - | 24.970 | - | - | 20.801 | - | - | 18.248 | - | - | - | - | - | 18.248 |
| <i>Subtotal: Hardware Cost</i> | - | - | 436.972 | - | - | 24.970 | - | - | 20.801 | - | - | 18.248 | - | - | - | - | - | 18.248 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | - | - | - | 0.350 | - | - | - | - | - | 0.350 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.350 | - | - | - | - | - | 0.350 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 18.768 | - | - | 1.894 | - | - | 2.228 | - | - | 2.386 | - | - | - | - | - | 2.386 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 18.768 | - | - | 1.894 | - | - | 2.228 | - | - | 2.386 | - | - | - | - | - | 2.386 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.042 | - | - | 0.003 | - | - | 0.016 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.042 | - | - | 0.003 | - | - | 0.016 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| Gross/Weapon System Cost | - | - | 455.782 | - | - | 26.867 | - | - | 23.045 | - | - | 20.989 | - | - | - | - | - | 20.989 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | Item Number / Title [DODIC]: E10100 / CTG, 30mm TP, M788, Single, f/Gun M230 [B118] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Remarks:
M788 price differences from FY 2020 to FY 2022 are due to negotiated Economic Price Adjustment (EPA) versus EPA allowable on contract, the change of the split between the two vendors at award to obtain the most advantageous price to the Government while maintaining the Industrial Base, and efficiencies achieved due to economies of scale with combined buys as the Single Manager for Conventional Ammunition (SMCA).

FY 2022 funding includes Base funding in support of a new round, the 30mm XM950 Target Practice (TP) cartridge, which is a different version of the M788. The cost increase is as a result of the modified primer incorporated in the round in support of the Mobile Low, slow, small Intercept and Defeat System (MLIDS) and Initial Maneuver Short Range Air Defense (IM-SHORAD) ground vehicle platforms.

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | | | | Item Number / Title [DODIC]: E10100 / CTG, 30mm TP, M788, Single, f/Gun M230 [B118] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|---|--------------------------------------|----------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND M788 TP ^(†) | | 2020 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Apr 2021 | 427,204 | 23.38 | Y | | |
| COMPLETE ROUND M788 TP ^(†) | | 2020 | GENERAL DYNAMICS ORD & TAC / MARION, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Jul 2021 | 640,806 | 23.38 | Y | | |
| COMPLETE ROUND M788 TP ^(†) | | 2021 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Mar 2022 | 376,821 | 27.60 | Y | | |
| COMPLETE ROUND M788 TP ^(†) | | 2021 | GENERAL DYNAMICS ORD & TAC / MARION, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Mar 2022 | 376,821 | 27.60 | Y | | |
| COMPLETE ROUND M788 TP ^(†) | | 2022 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 223,682 | 27.96 | Y | | |
| COMPLETE ROUND M788 TP ^(†) | | 2022 | GENERAL DYNAMICS ORD & TAC / MARION, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 223,682 | 27.96 | Y | | |
| COMPLETE ROUND XM950 PRACTICE ^(†) | | 2022 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 88,471 | 32.44 | Y | | |
| COMPLETE ROUND XM950 PRACTICE ^(†) | | 2022 | GENERAL DYNAMICS ORD & TAC / MARION, IL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 88,471 | 32.44 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
M788 is part of a combined 20mm, 25mm, 30mm contract FY 2018 - FY 2023. Quantity split will be determined between two contractors in the year of execution.
XM950 will be added to the Medium Caliber Family Buy contracts (FY 2018 - FY 2023). Quantity split will be determined between two contractors in the year of execution.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | Date: May 2021 | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | | | | Item Number / Title [DODIC]: E10100 / CTG, 30mm TP, M788, Single, f/Gun M230 [B118] | | | |

| O C O | | M F R # | | FY | | SERVICE | | PROC QTY | | ACCEPT PRIOR TO 1 OCT 2019 | | BAL DUE AS OF 1 OCT | | Fiscal Year 2020 | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | B A L A N C E | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---------|------|----|------|---------|---------|----------|------|----------------------------|---------|---------------------|--|--------------------|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|---|---|---|---|---|---------------------------------|---|---|---|---|---|---------|---------|---------|---------|---------|---------|---------|---------|--|---------|---------|---------|--------|
| | | | | | | | | | | | | | | Calendar Year 2020 | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | C | O | | | | | | | | | | | | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | | J | J | A | S | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | T | V | C | A | B | A | P | A | Y | N | U | L | U | G | E | P | T | V | C | A | N | B | A | R | P | A | Y | N | U | L | U | G | E | P | | | | | |
| COMPLETE ROUND M788 TP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 23629027 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | 2020 | | ARMY | | 427.204 | | .000 | | 427.204 | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.000 | 100.000 | 100.000 | 100.000 | 27.204 | | .000 | | | | | | |
| | 2 | | 2020 | | ARMY | | 640.806 | | .000 | | 640.806 | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | | 340.806 | | | |
| | 1 | | 2021 | | ARMY | | 376.821 | | .000 | | 376.821 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 376.821 | | |
| | 2 | | 2021 | | ARMY | | 376.821 | | .000 | | 376.821 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 376.821 | | |
| | 1 | | 2022 | | ARMY | | 223.682 | | .000 | | 223.682 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 223.682 | | |
| | 2 | | 2022 | | ARMY | | 223.682 | | .000 | | 223.682 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 223.682 | |
| COMPLETE ROUND XM950 PRACTICE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | | 2022 | | ARMY | | 88.471 | | .000 | | 88.471 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 88.471 | |
| | 4 | | 2022 | | ARMY | | 88.471 | | .000 | | 88.471 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 88.471 |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types | | | | | | | | | | | Item Number / Title [DODIC]: E10100 / CTG, 30mm TP, M788, Single, f/Gun M230 [B118] | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2022 | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | B A L A N C E | | | | | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|-------------|-------------|--|--|------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | | J U L | A U G | S E P | | | |
| COMPLETE ROUND M788 TP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 23629027 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 427.204 | 427.204 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | 2 | 2020 | ARMY | 640.806 | 300.000 | 340.806 | 100.000 | 100.000 | 100.000 | 40.806 | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | 1 | 2021 | ARMY | 376.821 | .000 | 376.821 | - | - | - | - | - | 100.000 | 100.000 | 100.000 | 76.821 | | | | | | | | | | | | | | | | | | | .000 |
| | 2 | 2021 | ARMY | 376.821 | .000 | 376.821 | - | - | - | - | - | 100.000 | 100.000 | 100.000 | 76.821 | | | | | | | | | | | | | | | | | | | .000 |
| | 1 | 2022 | ARMY | 223.682 | .000 | 223.682 | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | 2 | 2022 | ARMY | 223.682 | .000 | 223.682 | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| COMPLETE ROUND XM950 PRACTICE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | 2022 | ARMY | 88.471 | .000 | 88.471 | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | 4 | 2022 | ARMY | 88.471 | .000 | 88.471 | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 2938ER8120 / CTG, 30mm, All Types |
| Item Number / Title [DODIC]: E10100 / CTG, 30mm TP, M788, Single, f/Gun M230 [B118] | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|--|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | NORTHROP GRUMMAN INNOVATION - PLYMOUTH, MN | 1,000 | 120,000 | 200,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |
| 2 | GENERAL DYNAMICS ORD & TAC - MARION, IL | 1,000 | 120,000 | 200,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |
| 3 | NORTHROP GRUMMAN INNOVATION - PLYMOUTH, MN | 1,000 | 120,000 | 200,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |
| 4 | GENERAL DYNAMICS ORD & TAC - MARION, IL | 1,000 | 120,000 | 200,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/
Medium Cal Ammunition **P-1 Line Item Number / Title:**
3222ER8001 / CTG, 40mm, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|--|------------------|----------------|----------------|---------------|-------------|---------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 1,728.415 | 103.952 | 109.934 | 35.231 | - | 35.231 | - | - | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 1,728.415 | 103.952 | 109.934 | 35.231 | - | 35.231 | - | - | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 1,728.415 | 103.952 | 109.934 | 35.231 | - | 35.231 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (\$ in Dollars) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes 40MM ALL TYPES:

(E05610) CTG 40mm M781E1 Low Velocity Day Night Thermal cartridge is a training cartridge for the M203 and M320 Grenade Launchers. This ammunition consists of a projectile assembly and cartridge case assembly. The projectile ogive is filled with a signature material that provides a signature upon impact that can be seen day or night with the unaided eye and thermal and night vision weapon sights. The cartridge does not contain any fuzing or explosives, eliminating unexploded ordnance issues on the training ranges due to non-functioning training ammunition. This item is code B, not approved for service use.

(E05611) CTG 40mm M918E1 High Velocity Day Night Thermal cartridge is a training cartridge for the MK19 Grenade Machine Gun. This ammunition consists of a projectile assembly and cartridge case assembly. The projectile ogive is filled with a signature material that provides a signature upon impact that can be seen day or night with the unaided eye and thermal and night vision weapon sights. The cartridge does not contain any fuzing or explosives, eliminating unexploded ordnance issues on the training ranges due to non-functioning training ammunition. This item is code B, not approved for service use.

(E12601) CTG 40mm Low Velocity M433 is a High Explosive Dual Purpose (HEDP) cartridge fired from the M203 and M320 Grenade Launchers to a max range of 400 meters. The M433 cartridge consists of an aluminum projectile assembly with a Comp A5 high explosive charge, Point Initiating Base Detonating (PIBD) fuze assembly with a Spitback charge, copper cone liner, and aluminum cartridge case. Upon impact, detonation of the Comp A5 causes fragmentation of the projectile body on the target and forms an armor piercing jet created by the copper shaped-charge liner, which is capable of penetrating a minimum of two inches of Rolled Homogeneous Armor (RHA) plate. In FY 2022, this item will transition to an improved version for lethality (fragmentation) and accuracy, as the M433E1. This item is code B, not approved for service use.

(E70505) CTG 40mm High Velocity (HV) High Explosive Dual Purpose - Airburst (HEDP-AB) XM1176 cartridge is a new capability that will provide the Mk19 Mod 3 Grenade Machine Gun (GMG) an airburst capable cartridge with the ability of achieving required lethal effects against enemy targets in the open and in defilade, while maintaining the capability to defeat unarmored and lightly armored vehicles. This item is scheduled to transition from Engineering Manufacturing Development (EMD) to Milestone C and Low Rate Initial Production (LRIP) in the 4th Quarter of FY 2022. This item is Code B, not approved for service use.

(E71005) CTG 40mm Low Velocity High Explosive Air Burst (HEAB) XM1166 cartridge is a new capability that allows the Warfighter to engage targets at increased effective ranges using the 40mm M320 Grenade Launcher. The HEAB cartridge provides the grenadier with a higher probability of achieving a first shot kill against enemy personnel, coupled with the ability to defeat personnel targets in defilade positions. When deployed against point and area targets, the cartridge inflicts incapacitating effects against personnel beyond those offered by the current M433 High Explosive Dual Purpose (HEDP) cartridge.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>The cartridge provides lethal effects against targets with improved accuracy and greater standoff ranges resulting in increased soldier survivability. This item is scheduled to transition from Engineering Manufacturing Development (EMD) to Milestone C and Low Rate Initial Production (LRIP) in the 4th Quarter of FY 2022. This item is Code B, not approved for service use.</p> <p>(E74315) The 40mm Practice M918/M385A1 Mixed Belt cartridge configuration for the MK19 Grenade Machine Gun is a high velocity training projectile with realistic signature effects providing sufficient flash, smoke, and sound upon impact to be seen/heard out to 1,200 meters. In addition to providing audible/visual signature for day or night firing, the mixed belt for MK19 Grenade Machine Gun will minimize hazards to troops in the training area. This item is Code A, approved for service use.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types |

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| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
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Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E05610 / CTG, 40MM TP-DAY/NITE/THER,LO VEL M781A1, F/ M203GL [BA54] | P-5a, P-21 | B | | - / 68.206 | - / 17.576 | - / 12.845 | - / 7.873 | - / - | - / 7.873 |
| P-5 | E05611 / CTG, 40mm TP-Day/Nite/Ther,Hi Vel,M918E1 f/MK19Gmg [BA55] | P-5a | B | | - / 222.387 | - / 2.931 | - / 91.201 | - / 3.014 | - / - | - / 3.014 |
| P-5 | E12601 / CTG, 40MM HEDP, M433E1 F/M203 GRENADE LAUNCHER | | B | | - / 542.414 | - / - | - / 5.888 | - / - | - / - | - / - |
| P-5 | E70505 / CTG, 40MM, HV HEDP-AB, XM1176 | P-5a, P-21 | B | | - / - | - / - | - / - | - / 13.844 | - / - | - / 13.844 |
| P-5 | E71005 / CTG, 40MM, LV HEAB, XM1166 | P-5a, P-21 | B | | - / - | - / - | - / - | - / 10.500 | - / - | - / 10.500 |
| P-5 | E74315 / CTG, 40mm Practice, M918/M385A1 w/M16A2 Lnk f/MK19 | | A | | - / 895.408 | - / 83.445 | - / - | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 1,728.415 | - / 103.952 | - / 109.934 | - / 35.231 | - / - | - / 35.231 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base procurement dollars in the amount of \$35.231 million support procurement of 0.710 million cartridges.

(E05610) CTG 40mm M781E1 Low Velocity Day Night Thermal is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$7.873 million support the procurement of 0.571 million cartridges.
 Type classification date: 31 May 2017, Limited Procurement

(E05611) CTG 40mm M918E1 High Velocity Day Night Thermal is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$3.014 million support the procurement of 0.082 million cartridges.
 In FY 2022, funding in the amount of \$0.675 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments.
 Type classification date: 31 May 2017, Limited Procurement

(E12601) CTG 40mm Low Velocity M433 is a training standard item used in both training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.
 Type classification date: 1971

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(E70505) CTG 40mm High Velocity (HV) High Explosive Dual Purpose - Airburst (HEDP-AB) XM1176 is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$13.844 million support the procurement of 0.027 million cartridges. E70505 is a new start in FY 2022. Type classification date: TBD</p> <p>(E71005) CTG 40mm Low Velocity High Explosive Air Burst (HEAB) XM1166 is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$10.500 million support the procurement of 0.030 million cartridges. E71005 is a new start in FY 2022. Type classification date: TBD</p> <p>(E74315) CTG 40MM PRAC, M918/M385A1 is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goals. TYPE CLASSIFICATION DATE: October 1989 / October 1990</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | Item Number / Title [DODIC]: E05610 / CTG, 40MM TP-DAY/NITE/ THER,LO VEL M781A1, F/M203GL [BA54] |

| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | MDAP/MAIS Code: | | | | |
|---|--|--|---------------|------------------------|---------------|--------------|-------------|---------------|
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 68.206 | 17.576 | 12.845 | 7.873 | - | 7.873 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 68.206 | 17.576 | 12.845 | 7.873 | - | 7.873 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 68.206 | 17.576 | 12.845 | 7.873 | - | 7.873 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 11.52 | 5,331,805 | 61.433 | 10.43 | 1,476,543 | 15.400 | 10.43 | 1,100,901 | 11.482 | 12.38 | 571,513 | 7.075 | - | - | - | 12.38 | 571,513 | 7.075 |
| Subtotal: Recurring Cost | - | - | 61.433 | - | - | 15.400 | - | - | 11.482 | - | - | 7.075 | - | - | - | - | - | 7.075 |
| Subtotal: Hardware Cost | - | - | 61.433 | - | - | 15.400 | - | - | 11.482 | - | - | 7.075 | - | - | - | - | - | 7.075 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 0.320 | - | - | - | - | - | 0.103 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | 0.320 | - | - | - | - | - | 0.103 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 6.429 | - | - | 2.176 | - | - | 1.256 | - | - | 0.798 | - | - | - | - | - | 0.798 |
| Subtotal: Support - Production Engineering Cost | - | - | 6.429 | - | - | 2.176 | - | - | 1.256 | - | - | 0.798 | - | - | - | - | - | 0.798 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.024 | - | - | - | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.024 | - | - | - | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 68.206 | - | - | 17.576 | - | - | 12.845 | - | - | 7.873 | - | - | - | - | - | 7.873 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | Item Number / Title [DODIC]: E05610 / CTG, 40MM TP-DAY/NITE/ THER,LO VEL M781A1, F/M203GL [BA54] |

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| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
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Remarks:
The price difference between FY 2021 and FY 2022 is due to the estimated cost of a new contract award in FY 2022.

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | | | | Item Number / Title [DODIC]: E05610 / CTG, 40MM TP-DAY/NITE/ THER,LO VEL M781A1, F/M203GL [BA54] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|--|--------------------------------------|--------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND ^(†) | | 2020 | GENERAL DYNAMICS ORD & TAC / MARION, IL | Option / FFP | PICATINNY ARSENAL, NJ | Jul 2021 | Nov 2022 | 1,476,543 | 10.43 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | GENERAL DYNAMICS ORD & TAC / MARION, IL | Option / FFP | PICATINNY ARSENAL, NJ | Jul 2021 | Nov 2022 | 1,100,901 | 10.43 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | Mar 2022 | Jul 2023 | 571,513 | 12.38 | Y | | |

^(†) indicates the presence of a P-21

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | | | | | | | | | | Item Number / Title [DODIC]: E05610 / CTG, 40MM TP-DAY/NITE/ THER,LO VEL M781A1, F/M203GL [BA54] | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | Fiscal Year 2021 | | | | | | | | | | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | | BALANCE | | | | |
|---|-------------|--------------|---------|--------------|----------------------------|---------------------|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|---------|--|--|--------------|-------|
| OCO | MFR # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2020 | BAL DUE AS OF 1 OCT | Calendar Year 2021 | | | | | | | | | | | | | | | Calendar Year 2022 | | | | | | | | | | | | | | | | | |
| | | | | | | | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | | | | | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 5331805 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2020 | ARMY | | 1.477 | .000 | 1.477 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1.477 | |
| 2 | 2021 | ARMY | | 1.101 | .000 | 1.101 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1.101 |
| 2 | 2021 | MC (+) | | .932 | .000 | .932 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .699 |
| 2 | 2021 | Total | | 2.033 | .000 | 2.033 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1.800 | |
| 1 | 2022 | ARMY | | .572 | .000 | .572 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .572 | |
| 1 | 2022 | MC (+) | | .991 | .000 | .991 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .991 | |
| 1 | 2022 | Total | | 1.562 | .000 | 1.562 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1.562 | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | | | | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | | | | | | | | | | | | | | Item Number / Title [DODIC]: E05610 / CTG, 40MM TP-DAY/NITE/ THER,LO VEL M781A1, F/M203GL [BA54] | | | | | | | | | | | | | |

| Cost Elements <i>(Units in Millions, * = < 500)</i> | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | Fiscal Year 2024 | | | | | | | | | | | | | | B A L A N C E | | |
|---|------------------|-------------|--------------|--------------|-------------------------------------|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|---------------------------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEP T O 1 OCT 2022 | BAL DUE AS OF 1 OCT | Calendar Year 2023 | | | | | | | | | | | | | | Calendar Year 2024 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 5331805 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | ARMY | 1.477 | .000 | 1.477 | - | .123 | .123 | .123 | .123 | .123 | .123 | .123 | .123 | .123 | .123 | .123 | | | | | | | | | | | | .000 | | | | | |
| | 2 | 2021 | ARMY | 1.101 | .000 | 1.101 | - | .092 | .092 | .092 | .092 | .092 | .092 | .092 | .092 | .092 | .092 | .092 | | | | | | | | | | | | .000 | | | | | |
| | 2 | 2021 | MC (+) | .932 | .233 | .699 | .078 | .078 | .078 | .078 | .078 | .078 | .078 | .078 | .078 | .078 | - | - | - | - | | | | | | | | | | .000 | | | | | |
| | 2 | 2021 | Total | 2.033 | .233 | 1.800 | .078 | .169 | .169 | .169 | .169 | .169 | .169 | .169 | .169 | .169 | .092 | .092 | .092 | .092 | - | - | - | - | - | - | - | - | - | .000 | | | | | |
| | 1 | 2022 | ARMY | .572 | .000 | .572 | - | - | - | - | - | - | - | - | - | .048 | .048 | .048 | .048 | .048 | .048 | .048 | .048 | .048 | .048 | .048 | .048 | | | .000 | | | | | |
| | 1 | 2022 | MC (+) | .991 | .000 | .991 | - | - | - | - | - | - | - | - | - | .082 | .082 | .082 | .082 | .082 | .082 | .082 | .082 | .082 | .082 | .082 | .083 | | | .000 | | | | | |
| | 1 | 2022 | Total | 1.562 | .000 | 1.562 | - | - | - | - | - | - | - | - | - | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .130 | .131 | - | - | .000 | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types |
| Item Number / Title [DODIC]: E05610 / CTG, 40MM TP-DAY/NITE/ THER,LO VEL M781A1, F/M203GL [BA54] | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | TO BE SELECTED - TBS01 | 50,000 | 125,000 | 375,000 | 6 | 6 | 16 | 22 | 6 | 6 | 16 | 22 |
| 2 | GENERAL DYNAMICS ORD & TAC - MARION, IL | 50,000 | 125,000 | 375,000 | 6 | 6 | 16 | 22 | 6 | 6 | 16 | 22 |

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | Item Number / Title [DODIC]: E05611 / CTG, 40mm TP-Day/Nite/ Ther,Hi Vel,M918E1 f/MK19Gmg [BA55] |

| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 222.387 | 2.931 | 91.201 | 3.014 | - | 3.014 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 222.387 | 2.931 | 91.201 | 3.014 | - | 3.014 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 222.387 | 2.931 | 91.201 | 3.014 | - | 3.014 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 20.26 | 10,193,404 | 206.514 | - | - | - | 21.82 | 3,831,996 | 83.614 | 25.26 | 81,674 | 2.063 | - | - | - | 25.26 | 81,674 | 2.063 |
| <i>Subtotal: Recurring Cost</i> | - | - | 206.518 | - | - | - | - | - | 83.614 | - | - | 2.063 | - | - | - | - | - | 2.063 |
| <i>Subtotal: Hardware Cost</i> | - | - | 206.518 | - | - | - | - | - | 83.614 | - | - | 2.063 | - | - | - | - | - | 2.063 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 0.409 | - | - | - | - | - | 0.343 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.409 | - | - | - | - | - | 0.343 | - | - | - | - | - | - | - | - | - |
| Support - Engineering Change Proposals Cost | | | | | | | | | | | | | | | | | | |
| Engineering Change Proposals | - | - | 0.029 | - | - | 2.718 | - | - | 0.017 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Engineering Change Proposals Cost</i> | - | - | 0.029 | - | - | 2.718 | - | - | 0.017 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 15.397 | - | - | 0.213 | - | - | 7.221 | - | - | 0.951 | - | - | - | - | - | 0.951 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 15.397 | - | - | 0.213 | - | - | 7.221 | - | - | 0.951 | - | - | - | - | - | 0.951 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.034 | - | - | - | - | - | 0.006 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | MDAP/MAIS Code: |
| Item Number / Title [DODIC]: E05611 / CTG, 40mm TP-Day/Nite/ Ther,Hi Vel,M918E1 f/MK19Gmg [BA55] | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.034 | - | - | - | - | - | 0.006 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 222.387 | - | - | 2.931 | - | - | 91.201 | - | - | 3.014 | - | - | - | - | - | 3.014 |

Remarks:

The price difference between FY 2021 and FY 2022 is due to the significant decrease in quantities; the lower FY 2022 quantity is estimated to be in a higher price range.

Due to a safety issue identified on the CTG, 40mm TP-Day/Night/Thermal (DNT) High Velocity M918E1 (E05611), which resulted in delayed fielding of this cartridge, \$83 million of FY 2020 funding was realigned by Congress, based on Army's recommendation, to the CTG, 40mm Practice, M918/M385A1 Mixed Belt (E74315), to avoid readiness impacts while the safety issue on the M918E1 DNT was being addressed.

(f) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | | | | Item Number / Title [DODIC]: E05611 / CTG, 40mm TP-Day/Nite/ Ther,Hi Vel,M918E1 f/MK19Gmg [BA55] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------|-------------|------|-------------------------|--------------------------------------|--------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND | | 2021 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | Jul 2021 | Nov 2022 | 3,831,996 | 21.82 | Y | | |
| COMPLETE ROUND | | 2022 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | Mar 2022 | Jul 2023 | 81,674 | 25.26 | Y | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | Item Number / Title [DODIC]: E12601 / CTG, 40MM HEDP, M433E1 F / M203 GRENADE LAUNCHER |

| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|---------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 542.414 | - | 5.888 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 542.414 | - | 5.888 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 542.414 | - | 5.888 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 68.70 | 7,894,593 | 542.359 | - | - | - | 199.59 | 18,520 | 3.696 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 542.359 | - | - | - | - | - | 3.696 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 542.359 | - | - | - | - | - | 3.696 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | 1.809 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | 1.809 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.055 | - | - | - | - | - | 0.375 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.055 | - | - | - | - | - | 0.375 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | - | - | - | 0.008 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | - | - | - | - | - | - | 0.008 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 542.414 | - | - | - | - | - | 5.888 | - | - | - | - | - | - | - | - | - |

Remarks:
Unit price increase from prior years to FY 2021 due to transition to enhanced version for lethality (fragmentation) and accuracy.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | Item Number / Title [DODIC]: E70505 / CTG, 40MM, HV HEDP-AB, XM1176 |

| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | MDAP/MAIS Code: | | | |
|---|--|-------------|---------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | - | - | - | 13.844 | - | 13.844 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | - | - | - | 13.844 | - | 13.844 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | - | - | - | 13.844 | - | 13.844 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | - | - | - | - | - | - | - | 438.44 | 26,850 | 11.772 | - | - | - | 438.44 | 26,850 | 11.772 |
| Subtotal: Recurring Cost | - | - | - | - | - | - | - | - | - | - | - | 11.772 | - | - | - | - | - | 11.772 |
| Subtotal: Hardware Cost | - | - | - | - | - | - | - | - | - | - | - | 11.772 | - | - | - | - | - | 11.772 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | - | - | - | 0.290 | - | - | - | - | - | 0.290 |
| Subtotal: Support - Acceptance Testing Cost | - | - | - | - | - | - | - | - | - | - | - | 0.290 | - | - | - | - | - | 0.290 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 1.782 | - | - | - | - | - | 1.782 |
| Subtotal: Support - Production Engineering Cost | - | - | - | - | - | - | - | - | - | - | - | 1.782 | - | - | - | - | - | 1.782 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 13.844 | - | - | - | - | - | 13.844 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|---|--------------------------------------|--------------------------|---------------|--|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | | | | Item Number / Title [DODIC]: E70505 / CTG, 40MM, HV HEDP-AB, XM1176 | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND ^(†) | | 2022 | RDZM, LLC / MIDDLETOWN, IA | Option / FFP | PICATINNY ARSENAL, NJ | Jul 2022 | Nov 2023 | 26,850 | 438.44 | Y | | |

^(†) indicates the presence of a P-21

Remarks:

The complete round contract award for Low Rate Initial Production (LRIP) will be an option to the existing contract for Engineering, Manufacturing and Development (EMD).

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | | | | | | | | | | | | | Item Number / Title [DODIC]: E70505 / CTG, 40MM, HV HEDP-AB, XM1176 | | | | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | B A L A N C E | |
|--|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---------------------------------|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|------|------|--|--------|------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------|
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | ARMY | | 26.850 | .000 | 26.850 | | | | | | | | | | | | | | | | | | | | | | | | 26.850 |

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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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Exhibit P-21, Production Schedule: PB 2022 Army Date: May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30

P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types

Item Number / Title [DODIC]: E70505 / CTG, 40MM, HV HEDP-AB, XM1176

| Cost Elements (Units in Thousands) | | | | Fiscal Year 2024 | | | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | B A L A N C E | | | |
|---------------------------------------|------------------|----|---------|------------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | | |

COMPLETE ROUND

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|------|------|--|--------|------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|--|--|--|--|--|--|--|------|
| 1 | 2022 | ARMY | | 26.850 | .000 | 26.850 | - | 2.243 | 2.237 | 2.237 | 2.237 | 2.237 | 2.237 | 2.237 | 2.237 | 2.237 | 2.237 | 2.237 | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types |
| | | Item Number / Title [DODIC]: E70505 / CTG, 40MM, HV HEDP-AB, XM1176 |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | RDZM, LLC - MIDDLETOWN, IA | 1,000 | 5,000 | 10,000 | 10 | 10 | 18 | 28 | 6 | 6 | 12 | 18 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | Item Number / Title [DODIC]: E71005 / CTG, 40MM, LV HEAB, XM1166 |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|-------------|---------|---------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | - | - | 10.500 | - | 10.500 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | - | - | 10.500 | - | 10.500 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | - | - | 10.500 | - | 10.500 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | - | - | - | - | - | - | - | 289.70 | 29,570 | 8.566 | - | - | - | 289.70 | 29,570 | 8.566 |
| Subtotal: Recurring Cost | - | - | - | - | - | - | - | - | - | - | - | 8.566 | - | - | - | - | - | 8.566 |
| Subtotal: Hardware Cost | - | - | - | - | - | - | - | - | - | - | - | 8.566 | - | - | - | - | - | 8.566 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | - | - | - | 0.451 | - | - | - | - | - | 0.451 |
| Subtotal: Support - Acceptance Testing Cost | - | - | - | - | - | - | - | - | - | - | - | 0.451 | - | - | - | - | - | 0.451 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 1.483 | - | - | - | - | - | 1.483 |
| Subtotal: Support - Production Engineering Cost | - | - | - | - | - | - | - | - | - | - | - | 1.483 | - | - | - | - | - | 1.483 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 10.500 | - | - | - | - | - | 10.500 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|---|--------------------------------------|--------------------------|---------------|---|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | | | | Item Number / Title [DODIC]: E71005 / CTG, 40MM, LV HEAB, XM1166 | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND ^(†) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | Jul 2022 | Nov 2023 | 29,570 | 289.70 | Y | | |

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2022 Army Date: May 2021

| | | |
|--|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | Item Number / Title [DODIC]: E71005 / CTG, 40MM, LV HEAB, XM1166 |
|--|---|---|

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | B A L A N C E | |
|--|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|------|------|--------|------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | ARMY | 29.570 | .000 | 29.570 | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 29.570 |

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|-----------------------|--|---|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | | | | | | | | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | | | | | | | | | | Item Number / Title [DODIC]: E71005 / CTG, 40MM, LV HEAB, XM1166 | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2024 | | | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | | | B A L A N C E | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|---------------------------------|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | ARMY | 29.570 | .000 | 29.570 | - | 2.466 | 2.464 | 2.464 | 2.464 | 2.464 | 2.464 | 2.464 | 2.464 | 2.464 | 2.464 | 2.464 | 2.464 | | | | | | | | | | | .000 | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types |
| | | Item Number / Title [DODIC]: E71005 / CTG, 40MM, LV HEAB, XM1166 |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | TO BE SELECTED - TBS01 | 1,000 | 5,000 | 10,000 | 6 | 6 | 18 | 24 | 6 | 6 | 12 | 18 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | Item Number / Title [DODIC]: E74315 / CTG, 40mm Practice, M918/ M385A1 w/M16A2 Lnk f/MK19 |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|----------------|---------------|---------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 895.408 | 83.445 | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 895.408 | 83.445 | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 895.408 | 83.445 | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | - | - | 895.408 | 30.00 | 2,598,587 | 77.958 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>895.408</i> | - | - | <i>77.958</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 895.408 | - | - | 77.958 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | 0.387 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.387 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Safety | - | - | - | - | - | 0.143 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | - | - | - | 0.143 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | 4.957 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | 4.957 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 895.408 | - | - | 83.445 | - | - | - | - | - | - | - | - | - | - | - | - |

Remarks:

Due to a safety issue identified on the CTG, 40mm TP-Day/Night/Thermal (DNT) High Velocity M918E1 (E05611) resulting in delayed fielding of this cartridge, \$83 million of FY 2020 funding was realigned by Congress, based on Army's recommendation, to the CTG, 40mm Practice, M918/M385A1 Mixed Belt (E74315), to avoid readiness impacts while the safety issue on the M918E1 DNT was being addressed.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30 | P-1 Line Item Number / Title: 3222ER8001 / CTG, 40mm, All Types | Item Number / Title [DODIC]: E74315 / CTG, 40mm Practice, M918/ M385A1 w/M16A2 Lnk f/MK19 |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types |
|---|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|---------------|---------------|---------------|-------------|---------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity <i>(Units in Each)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost <i>(\$ in Millions)</i> | 599.535 | 49.580 | 31.222 | 23.219 | - | 23.219 | - | - | - | - | - | - |
| Less PY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) <i>(\$ in Millions)</i> | 599.535 | 49.580 | 31.222 | 23.219 | - | 23.219 | - | - | - | - | - | - |
| Plus CY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority <i>(\$ in Millions)</i> | 599.535 | 49.580 | 31.222 | 23.219 | - | 23.219 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost <i>(\$ in Dollars)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i> | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

(E89600) 60MM Mortar, All Types

This line includes 60mm Mortar Ammunition, All Types.

The 60mm Mortar cartridges are designed for use with the M224A1 Lightweight Company Mortar System (LWCMS) used by the Stryker Brigade Combat Teams as well as light infantry battalions including Airborne, Air Assault and Ranger. The short minimum range of the M224 makes the 60mm mortar ammunition well suited for close protective fires against an assaulting enemy, for block-to-block fighting in cities, and combat over close terrain with restricted visibility.

(E72199) CTG, 60mm Mortar HE ENFRAG, M1061 Series w/MOFM

The M1061, 60mm High Explosive Enhanced Fragmentation (EF) cartridge with Multi Option Fuze for Mortars (MOFM) (Range 70 meter minimum to 3,400 meter maximum) is used against personnel and a higher category of materiel target sets providing both fragmentation and blast effect. This round uses the insensitive main charge explosive PBNX-110. Lethality is maintained by an enhanced fragmentation warhead. The M1061 EF uses the highly reliable and robust electronic countermeasure resistant M734A1 multi-option fuze. When the fuze is set in the proximity mode, it functions at a height over the target that is optimized for lethality.

This item is Code A, approved for service use.

(E85700) CTG, 60mm Mortar IR ILLUM, M767 Series w/MTSQ Fuze

The M767 cartridge is a fin stabilized, mortar cartridge that consists of a M776 Mechanical Time Superquick (MTSQ) fuze, a thin wall steel body tube and aluminum tail cone that contains the payload (parachute and canister), and a fin assembly that contains the ignition cartridge and propelling charges. The payload is base ejected and upon ignition produces infrared (IR) illumination. The advantage of the infrared over conventional illumination is that there is minimal visible light. This reduces the possibility of exposing forward friendly troop positions while also allowing covert adjustment of fire at greater observation distances through use of passive Night Vision Devices (NVD). The M721/M767 Illumination cartridges (Range 300 meter minimum to 3,175 meter maximum) are ballistically similar to the M720A1 HE cartridge, allowing a gun to illuminate and fire on the same target without adjustments.

This item is Code A, approved for service use.

(E92200) CTG, 60mm Mortar FRTR, M769 Series w/Practice Fuze

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition | | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>The M769 is a low-cost, full range, training round (FRTR) that will replace a percentage of the standard HE rounds used in 60mm mortar training. The M769 FRTR (Range 70 meter minimum to 3,500 meter maximum) has been designed to provide the user with realistic training at a fraction of the cost. It is identical in shape, size and weight to the M720/M720A1 High Explosive cartridges. The flash, bang and smoke signature provided by the M775 fuze is channeled to exhaust holes in the rear of the cartridge through the use of a center vent tube. This item is Code A, approved for service use.</p> <p>(E92900) CTG, 60mm Mortar HE, M768 Series w/PD Fuze</p> <p>The 60mm High Explosive (HE) Cartridges are Insensitive Munitions (IM) enhanced, HE rounds. The M768 High Explosive cartridge (Range 70 meter minimum to 3,400 meter maximum) is used with the new M783 dual safety, point detonating/delay fuze, tail fin assembly, and high fragmentation steel (HF-1) shell body loaded with approximately 2 pounds. of an IM explosive. This cartridge is used primarily in training because it is significantly less expensive than the M720A1, the preferred war fighting cartridge. However, the M768 is lethal and can be used in combat. This item is Code A, approved for service use.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition | | | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | | |
| ID Code (A=Service Ready, B=Not Service Ready): | | Program Elements for Code B Items: N/A | | Other Related Program Elements: N/A | |
| Line Item MDAP/MAIS Code: N/A | | | | | |

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E72199 / CTG, 60mm Mortar HE ENFRAG, M1061 Series w/MOFM [BA42] | P-5a | A | | - / 78.756 | - / 10.964 | - / - | - / - | - / - | - / - |
| P-5 | E85700 / CTG, 60mm Mortar IR ILLUM, M767 Series w/MTSQ Fuze [BA04] | P-5a | A | | - / 52.656 | - / 8.700 | - / - | - / - | - / - | - / - |
| P-5 | E92200 / CTG, 60mm Mortar FRTR, M769 Series w/Practice Fuze [BA15] | P-5a | A | | - / 186.074 | - / 14.433 | - / 10.201 | - / 10.118 | - / - | - / 10.118 |
| P-5 | E92900 / CTG, 60mm Mortar HE, M768 Series w/PD Fuze [BA45] | P-5a | A | | - / 282.049 | - / 15.483 | - / 21.021 | - / 13.101 | - / - | - / 13.101 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 599.535 | - / 49.580 | - / 31.222 | - / 23.219 | - / - | - / 23.219 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The FY 2022 Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 total base procurement dollars in the amount of \$23.219million supports the procurement of 81,577 cartridges.

E72199 - CTG, 60mm Mortar HE ENFRAG, M1061 Series w/MOFM
 This is a war reserve item used in combat. The builds a war reserve inventory in accordance with the Army's procurement goals.
 TYPE CLASSIFICATION DATE: 2013

E85700 - CTG, 60mm Mortar IR ILLUM, M767 Series w/MTSQ Fuze
 This is a training standard item used in training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.
 TYPE CLASSIFICATION DATE: DECEMBER 1999

E92200 - CTG, 60mm Mortar FRTR, M769 Series w/Practice Fuze
 This is a training unique item not used in combat. FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Total base procurement dollars in the amount of \$10.118 million supports the procurement of 54,542 rounds.
 TYPE CLASSIFICATION DATE: 2001

E92900 - CTG, 60mm Mortar HE, M768 Series w/PD Fuze

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2022 Army Date: May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types

ID Code (A=Service Ready, B=Not Service Ready): Program Elements for Code B Items: N/A Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Total base procurement dollars in the amount of \$13.101 million supports the procurement of 27,035 cartridges.

In FY 2022, funding in the amount of \$0.225 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments.

TYPE CLASSIFICATION DATE: 2001

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | Item Number / Title [DODIC]: E72199 / CTG, 60mm Mortar HE ENFRAG, M1061 Series w/MOFM [BA42] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|---------------|---------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 78.756 | 10.964 | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 78.756 | 10.964 | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 78.756 | 10.964 | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 595.61 | 50,092 | 29.835 | 719.83 | 8,272 | 5.954 | - | - | - | - | - | - | - | - | - | - | - | - |
| FUZE MOFM, M734A1 ^(†) | 293.98 | 51,595 | 15.168 | 225.00 | 8,520 | 1.917 | - | - | - | - | - | - | - | - | - | - | - | - |
| M702 IGNITION CARTRIDGE ^(†) | 15.17 | 51,595 | 0.783 | 14.68 | 8,520 | 0.125 | - | - | - | - | - | - | - | - | - | - | - | - |
| PROPELLANT CHARGE, M236 ^(†) | 11.68 | 206,378 | 2.411 | 16.47 | 34,081 | 0.561 | - | - | - | - | - | - | - | - | - | - | - | - |
| FIN ASSEMBLY M27 ^(†) | 7.41 | 51,595 | 0.382 | 7.12 | 8,520 | 0.061 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 48.579 | - | - | 8.618 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 48.579 | - | - | 8.618 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.780 | - | - | 0.327 | - | - | - | - | - | - | - | - | - | - | - | - |
| First Article Test | - | - | - | - | - | 0.189 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.780 | - | - | 0.516 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 29.397 | - | - | 1.829 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | Item Number / Title [DODIC]: E72199 / CTG, 60mm Mortar HE ENFRAG, M1061 Series w/MOFM [BA42] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 29.397 | - | - | 1.829 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 78.756 | - | - | 10.964 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | | | | Item Number / Title [DODIC]: E72199 / CTG, 60mm Mortar HE ENFRAG, M1061 Series w/MOFM [BA42] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2020 | DAY & ZIMMERMAN (KSAAP) / PARSONS, KS | Option / FFP | PICATINNY ARSENAL, NJ | Jul 2020 | Jul 2023 | 8,272 | 719.83 | Y | | |
| FUZE MOFM, M734A1 | | 2020 | L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH | C / FFP | PICATINNY ARSENAL, NJ | Feb 2020 | Aug 2022 | 8,520 | 225.00 | Y | | |
| M702 IGNITION CARTRIDGE | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Aug 2021 | 8,520 | 14.68 | Y | | |
| PROPELLANT CHARGE, M236 | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Jan 2020 | Jul 2021 | 34,081 | 16.47 | Y | | |
| FIN ASSEMBLY M27 | | 2020 | FLEXIBLE CONCEPTS, INC. / ELKHART, IN | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2020 | Sep 2021 | 8,520 | 7.12 | Y | | |

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|---|--|--|--|---|----------------|------------------------|--|--------------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | | | Item Number / Title [DODIC]: E85700 / CTG, 60mm Mortar IR ILLUM, M767 Series w/MTSQ Fuze [BA04] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | | 52.656 | 8.700 | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | | 52.656 | 8.700 | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | | 52.656 | 8.700 | - | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 109.80 | 11,648 | 1.279 | 172.26 | 12,369 | 2.131 | - | - | - | - | - | - | - | - | - | - | - | - |
| FIN ASSEMBLY M27 ^(†) | 7.89 | 11,997 | 0.095 | 7.12 | 12,740 | 0.091 | - | - | - | - | - | - | - | - | - | - | - | - |
| M702 IGNITION CARTRIDGE ^(†) | 14.49 | 11,997 | 0.174 | 14.68 | 12,740 | 0.187 | - | - | - | - | - | - | - | - | - | - | - | - |
| PROPELLANT CHARGE, M235 ^(†) | 9.26 | 47,990 | 0.444 | 16.47 | 50,960 | 0.839 | - | - | - | - | - | - | - | - | - | - | - | - |
| FUZE MTSQ, M776 ^(†) | 225.52 | 11,997 | 2.706 | 204.89 | 12,740 | 2.610 | - | - | - | - | - | - | - | - | - | - | - | - |
| BODY TUBE, 60MM ILLUM ^(†) | 26.84 | 11,997 | 0.322 | 17.85 | 12,740 | 0.227 | - | - | - | - | - | - | - | - | - | - | - | - |
| TAIL CONE, 60MM ILLUM ^(†) | 20.16 | 11,997 | 0.242 | 17.08 | 12,740 | 0.218 | - | - | - | - | - | - | - | - | - | - | - | - |
| PARACHUTE, 60MM ^(†) | 22.00 | 11,997 | 0.264 | 22.00 | 12,740 | 0.280 | - | - | - | - | - | - | - | - | - | - | - | - |
| IR ILLUM CANNISTER, 60MM ^(†) | 101.96 | 11,997 | 1.223 | 75.00 | 12,740 | 0.956 | - | - | - | - | - | - | - | - | - | - | - | - |
| FIBER CONTAINER PA 175, 60MM ^(†) | 3.47 | 11,997 | 0.042 | 3.60 | 12,740 | 0.046 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | Item Number / Title [DODIC]: E85700 / CTG, 60mm Mortar IR ILLUM, M767 Series w/MTSQ Fuze [BA04] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| METAL CONTAINER PA191, 60MM ^(t) | 48.60 | 1,500 | 0.073 | 45.15 | 1,546 | 0.070 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 6.863 | - | - | 7.654 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 6.863 | - | - | 7.654 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.187 | - | - | 0.135 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.187 | - | - | 0.135 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 45.606 | - | - | 0.911 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 45.606 | - | - | 0.911 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 52.656 | - | - | 8.700 | - | - | - | - | - | - | - | - | - | - | - | - |

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|--|--|--|---|--|--|--|--|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | | | | Item Number / Title [DODIC]: E85700 / CTG, 60mm Mortar IR ILLUM, M767 Series w/MTSQ Fuze [BA04] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---------------------------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2020 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Mar 2020 | Mar 2023 | 12,369 | 172.26 | Y | | |
| FIN ASSEMBLY M27 | | 2020 | FLEXIBLE CONCEPTS, INC. / ELKHART, IN | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2020 | Sep 2021 | 12,740 | 7.12 | Y | | |
| M702 IGNITION CARTRIDGE | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Dec 2020 | 12,740 | 14.68 | Y | | |
| PROPELLANT CHARGE, M235 | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Jan 2020 | Sep 2021 | 50,960 | 16.47 | Y | | |
| FUZE MTSQ, M776 | | 2020 | JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY | SS / FFP | ROCK ISLAND ARSENAL, IL | Feb 2020 | Oct 2021 | 12,740 | 204.89 | Y | | |
| BODY TUBE, 60MM ILLUM | | 2020 | LEWIS ENGINEERING COMPANY / MARSHALL, TX | C / IDIQ | PICATINNY ARSENAL, NJ | Apr 2020 | Jan 2021 | 12,740 | 17.85 | Y | | |
| TAIL CONE, 60MM ILLUM | | 2020 | LEWIS ENGINEERING COMPANY / MARSHALL, TX | C / IDIQ | PICATINNY ARSENAL, NJ | Apr 2020 | Jan 2021 | 12,740 | 17.08 | Y | | |
| PARACHUTE, 60MM | | 2020 | YOLAND CORPORATION / BROOKLYN, NY | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Aug 2021 | 12,740 | 22.00 | Y | | |
| IR ILLUM CANNISTER, 60MM | | 2020 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2020 | Jul 2021 | 12,740 | 75.00 | Y | | |
| FIBER CONTAINER PA 175, 60MM | | 2020 | UNITED AMMUNITION CONTAINER / MILAN, TN | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2020 | Aug 2021 | 12,740 | 3.60 | Y | | |
| METAL CONTAINER PA191, 60MM | | 2020 | BWAY CORPORATION / ATLANTA, GA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2020 | Oct 2020 | 1,546 | 45.15 | Y | | |

Remarks:

M27 FINS: IDIQ awarded (FY 2017) to multiple contractors. Requirements are competed among the following contractors: Gayston, Springboro, OH; Flexible Concepts Elkhart, IN. Ignition Cartridges: IDIQ awarded (FY 2018) to multiple contractors. Requirements are competed among the following contractors: Nammo Pocal INC., Scranton, PA and Pyrotechnique by Grucci INC., Radford, VA. Body Tube / Tail Cones: IDIQ awarded (FY 2018) to multiple contractors. Requirements are competed among the following contractors: GD Wilkes Barre, PA and Lewis Engineering Company, Marshall, TX. Propellant Charges: IDIQ awarded (FY 2018) to multiple contractors. Requirements are competed among the following contractors: American Ordnance, Middletown, IA; and General Dynamics, Marion, IL.

Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | Date: May 2021 | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | | | | | | Item Number / Title [DODIC]: E92200 / CTG, 60mm Mortar FRTR, M769 Series w/Practice Fuze [BA15] | | | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | MDAP/MAIS Code: | | | | | | | |
| Resource Summary | | | | Prior Years | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | FY 2022 Total | |
| Procurement Quantity (Units in Each) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Cost (\$ in Millions) | | | | 186.074 | | 14.433 | | | 10.201 | | | 10.118 | | | - | | 10.118 | |
| Less PY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Net Procurement (P-1) (\$ in Millions) | | | | 186.074 | | 14.433 | | | 10.201 | | | 10.118 | | | - | | 10.118 | |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Total Obligation Authority (\$ in Millions) | | | | 186.074 | | 14.433 | | | 10.201 | | | 10.118 | | | - | | 10.118 | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | | - | | | - | | | - | | | - | | - | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Load, Assemble, Pack (LAP) ^(†) | 18.37 | 202,410 | 3.718 | 18.81 | 82,573 | 1.553 | 19.95 | 56,735 | 1.132 | 20.31 | 54,542 | 1.108 | - | - | - | 20.31 | 54,542 | 1.108 |
| Fuze Practice, M775 ^(†) | 20.06 | 208,483 | 4.182 | 20.50 | 85,050 | 1.744 | 22.06 | 58,437 | 1.289 | 22.49 | 56,177 | 1.263 | - | - | - | 22.49 | 56,177 | 1.263 |
| Shell Body, 60MM FRPC ^(†) | 36.43 | 208,483 | 7.595 | 37.19 | 85,050 | 3.163 | 37.79 | 58,437 | 2.208 | 39.46 | 56,177 | 2.217 | - | - | - | 39.46 | 56,177 | 2.217 |
| M702 Ignition Cartridge ^(†) | 14.20 | 208,483 | 2.960 | 14.68 | 85,050 | 1.249 | 16.71 | 58,437 | 0.976 | 17.04 | 56,177 | 0.957 | - | - | - | 17.04 | 56,177 | 0.957 |
| Propellant Charge, M235 ^(†) | 12.31 | 833,929 | 10.267 | 12.35 | 340,201 | 4.201 | 12.60 | 233,748 | 2.945 | 13.04 | 224,713 | 2.930 | - | - | - | 13.04 | 224,713 | 2.930 |
| Fin Assembly M27 ^(†) | 7.30 | 208,483 | 1.522 | 7.12 | 85,050 | 0.606 | 7.70 | 58,437 | 0.450 | 7.85 | 56,177 | 0.441 | - | - | - | 7.85 | 56,177 | 0.441 |
| <i>Subtotal: Recurring Cost</i> | - | - | 30.245 | - | - | 12.515 | - | - | 9.001 | - | - | 8.916 | - | - | - | - | - | 8.916 |
| <i>Subtotal: Hardware Cost</i> | - | - | 30.245 | - | - | 12.515 | - | - | 9.001 | - | - | 8.916 | - | - | - | - | - | 8.916 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 1.052 | - | - | 0.508 | - | - | 0.384 | - | - | 0.383 | - | - | - | - | - | 0.383 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 1.052 | - | - | 0.508 | - | - | 0.384 | - | - | 0.383 | - | - | - | - | - | 0.383 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 154.777 | - | - | 1.410 | - | - | 0.816 | - | - | 0.819 | - | - | - | - | - | 0.819 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 154.777 | - | - | 1.410 | - | - | 0.816 | - | - | 0.819 | - | - | - | - | - | 0.819 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |
| Item Number / Title [DODIC]: E92200 / CTG, 60mm Mortar FRTR, M769 Series w/Practice Fuze [BA15] | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--------------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Gross/Weapon System Cost | - | - | 186.074 | - | - | 14.433 | - | - | 10.201 | - | - | 10.118 | - | - | - | - | - | 10.118 |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|---|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|---|-------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | | | | | Item Number / Title [DODIC]: E92200 / CTG, 60mm Mortar FRTR, M769 Series w/Practice Fuze [BA15] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| Load, Assemble, Pack (LAP) | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2020 | Mar 2022 | 82,573 | 18.81 | Y | | |
| Load, Assemble, Pack (LAP) | | 2021 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | May 2021 | May 2023 | 56,735 | 19.95 | Y | | |
| Load, Assemble, Pack (LAP) | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | May 2022 | May 2024 | 54,542 | 20.31 | Y | | |
| Fuze Practice, M775 | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2019 | Jun 2021 | 85,050 | 20.50 | Y | | |
| Fuze Practice, M775 | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2022 | 58,437 | 22.06 | Y | | |
| Fuze Practice, M775 | | 2022 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 56,177 | 22.49 | Y | | |
| Shell Body, 60MM FRPC | | 2020 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2019 | Jun 2021 | 85,050 | 37.19 | Y | | |
| Shell Body, 60MM FRPC | | 2021 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2022 | 58,437 | 37.79 | Y | | |
| Shell Body, 60MM FRPC | | 2022 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 56,177 | 39.46 | Y | | |
| M702 Ignition Cartridge | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Aug 2021 | 85,050 | 14.68 | Y | | |
| M702 Ignition Cartridge | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Aug 2022 | 58,437 | 16.71 | Y | | |
| M702 Ignition Cartridge | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 56,177 | 17.04 | Y | | |
| Propellant Charge, M235 | | 2020 | GENERAL DYNAMICS ORD & TAC / MARION, IL | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Aug 2021 | 340,201 | 12.35 | Y | | |
| Propellant Charge, M235 | | 2021 | GENERAL DYNAMICS ORD & TAC / MARION, IL | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 233,748 | 12.60 | Y | | |
| Propellant Charge, M235 | | 2022 | TO BE SELECTED / TBS01 | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 224,713 | 13.04 | Y | | |
| Fin Assembly M27 | | 2020 | FLEXIBLE CONCEPTS, INC. / ELKHART, IN | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2020 | Sep 2021 | 85,050 | 7.12 | Y | | |
| Fin Assembly M27 | | 2021 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2021 | Oct 2022 | 58,437 | 7.70 | Y | | |
| Fin Assembly M27 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 56,177 | 7.85 | Y | | |
| Remarks: | | | | | | | | | | | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | Item Number / Title [DODIC]: E92200 / CTG, 60mm Mortar FRTR, M769 Series w/Practice Fuze [BA15] |

M27 FINS: IDIQ awarded (FY 2017) to multiple contractors. Requirements are competed among the following contractors: Gayston, Springboro, OH; Flexible Concepts Elkhart, IN. Ignition Cartridges: IDIQ awarded (FY 2018) to multiple contractors. Requirements will be competed among the following contractors: Nammo Pocal INC., Scranton, PA and Pyrotechnique by Grucci INC., Radford, VA. Shell Bodies: IDIQ awarded (FY 2018) to General Dynamics OTS, Wilkes Barre PA. Propellant Charges: IDIQ awarded (FY 2018) to multiple contractors. Requirements are competed among the following contractors: American Ordnance, Middletown, IA; and General Dynamics, Marion, IL.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | Item Number / Title [DODIC]: E92900 / CTG, 60mm Mortar HE, M768 Series w/PD Fuze [BA45] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|---------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 282.049 | 15.483 | 21.021 | 13.101 | - | 13.101 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 282.049 | 15.483 | 21.021 | 13.101 | - | 13.101 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 282.049 | 15.483 | 21.021 | 13.101 | - | 13.101 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 52.51 | 131,456 | 6.903 | 61.73 | 32,050 | 1.978 | 57.87 | 44,075 | 2.551 | 58.99 | 27,035 | 1.595 | - | - | - | 58.99 | 27,035 | 1.595 |
| SHELL BODY (HF1), 60MM HE ^(†) | 39.90 | 135,401 | 5.402 | 40.79 | 33,012 | 1.347 | 41.39 | 45,397 | 1.879 | 43.28 | 27,846 | 1.205 | - | - | - | 43.28 | 27,846 | 1.205 |
| FIN ASSEMBLY M27 ^(†) | 7.29 | 135,401 | 0.987 | 7.12 | 33,012 | 0.235 | 7.70 | 45,397 | 0.350 | 7.85 | 27,846 | 0.219 | - | - | - | 7.85 | 27,846 | 0.219 |
| M702 IGNITION CARTRIDGE ^(†) | 19.71 | 135,401 | 2.669 | 14.68 | 33,012 | 0.485 | 16.71 | 45,397 | 0.759 | 17.04 | 27,846 | 0.474 | - | - | - | 17.04 | 27,846 | 0.474 |
| PROPELLANT CHARGE, M235 ^(†) | 11.33 | 541,599 | 6.134 | 12.53 | 132,046 | 1.655 | 12.60 | 181,589 | 2.288 | 13.04 | 111,384 | 1.452 | - | - | - | 13.04 | 111,384 | 1.452 |
| FUZE POINT DETONATOR M783 ^(†) | 183.48 | 135,401 | 24.844 | 158.21 | 33,012 | 5.223 | 170.51 | 45,397 | 7.741 | 173.91 | 27,846 | 4.843 | - | - | - | 173.91 | 27,846 | 4.843 |
| PBXW-12 BULK EXPLOSIVE ^(†) | 85.74 | 1,782 | 0.153 | 88.36 | 1,923 | 0.170 | 89.21 | 2,645 | 0.236 | 90.99 | 1,622 | 0.148 | - | - | - | 90.99 | 1,622 | 0.148 |
| EXPLOSIVE FILL IMX-104 ^(†) | 22.19 | 394,368 | 8.750 | 22.20 | 96,150 | 2.135 | 24.40 | 132,225 | 3.226 | 24.88 | 81,105 | 2.018 | - | - | - | 24.88 | 81,105 | 2.018 |
| <i>Subtotal: Recurring Cost</i> | - | - | 55.841 | - | - | 13.226 | - | - | 19.029 | - | - | 11.954 | - | - | - | - | - | 11.954 |
| <i>Subtotal: Hardware Cost</i> | - | - | 55.841 | - | - | 13.226 | - | - | 19.029 | - | - | 11.954 | - | - | - | - | - | 11.954 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.906 | - | - | 0.220 | - | - | 0.310 | - | - | 0.220 | - | - | - | - | - | 0.220 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types |
| | | Item Number / Title [DODIC]: E92900 / CTG, 60mm Mortar HE, M768 Series w/PD Fuze [BA45] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.906 | - | - | 0.220 | - | - | 0.310 | - | - | 0.220 | - | - | - | - | - | 0.220 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 225.302 | - | - | 2.037 | - | - | 1.683 | - | - | 0.927 | - | - | - | - | - | 0.927 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 225.302 | - | - | 2.037 | - | - | 1.683 | - | - | 0.927 | - | - | - | - | - | 0.927 |
| Gross/Weapon System Cost | - | - | 282.049 | - | - | 15.483 | - | - | 21.021 | - | - | 13.101 | - | - | - | - | - | 13.101 |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | | | Date: May 2021 | | |
|---|-------------|------|--|--------------------------------------|-------------------------|---------------|------------------------------|--|-------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | | | | | Item Number / Title [DODIC]: E92900 / CTG, 60mm Mortar HE, M768 Series w/PD Fuze [BA45] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| LOAD, ASSEMBLE, PACK (LAP) | | 2020 | DAY & ZIMMERMAN (KSAAP) / PARSONS, KS | C / IDIQ | ROCK ISLAND ARSENAL, IL | Jun 2020 | Jun 2023 | 32,050 | 61.73 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2021 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | May 2021 | May 2024 | 44,075 | 57.87 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | May 2022 | May 2025 | 27,035 | 58.99 | Y | | |
| SHELL BODY (HF1), 60MM HE | | 2020 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2019 | Jun 2021 | 33,012 | 40.79 | Y | | |
| SHELL BODY (HF1), 60MM HE | | 2021 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2022 | 45,397 | 41.39 | Y | | |
| SHELL BODY (HF1), 60MM HE | | 2022 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 27,846 | 43.28 | Y | | |
| FIN ASSEMBLY M27 | | 2020 | FLEXIBLE CONCEPTS, INC. / ELKHART, IN | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2020 | Sep 2021 | 33,012 | 7.12 | Y | | |
| FIN ASSEMBLY M27 | | 2021 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2021 | Oct 2021 | 45,397 | 7.70 | Y | | |
| FIN ASSEMBLY M27 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 27,846 | 7.85 | Y | | |
| M702 IGNITION CARTRIDGE | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Aug 2021 | 33,012 | 14.68 | Y | | |
| M702 IGNITION CARTRIDGE | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Aug 2022 | 45,397 | 16.71 | Y | | |
| M702 IGNITION CARTRIDGE | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 27,846 | 17.04 | Y | | |
| PROPELLANT CHARGE, M235 | | 2020 | GENERAL DYNAMICS ORD & TAC / MARION, IL | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Aug 2021 | 132,046 | 12.53 | Y | | |
| PROPELLANT CHARGE, M235 | | 2021 | GENERAL DYNAMICS ORD & TAC / MARION, IL | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 181,589 | 12.60 | Y | | |
| PROPELLANT CHARGE, M235 | | 2022 | TO BE SELECTED / TBS01 | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 111,384 | 13.04 | Y | | |
| FUZE POINT DETONATOR M783 | | 2020 | L-3 FUZING & ORDNANCE SYSTEMS / CINCINNATI, OH | C / FFP | PICATINNY ARSENAL, NJ | Jan 2020 | Jul 2022 | 33,012 | 158.21 | Y | | |
| FUZE POINT DETONATOR M783 | | 2021 | L-3 FUZING & ORDNANCE SYSTEMS / CINCINNATI, OH | Option / FFP | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2023 | 45,397 | 170.51 | Y | | |
| FUZE POINT DETONATOR M783 | | 2022 | TO BE SELECTED / TBS01 | Option / FFP | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2024 | 27,846 | 173.91 | Y | | |
| PBXW-12 BULK EXPLOSIVE | | 2020 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2020 | Oct 2021 | 1,923 | 88.36 | Y | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 0050E89600 / 60MM Mortar, All Types | | | | Item Number / Title [DODIC]: E92900 / CTG, 60mm Mortar HE, M768 Series w/PD Fuze [BA45] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|------------------------|-------------|------|--|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| PBXW-12 BULK EXPLOSIVE | | 2021 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Aug 2022 | 2,645 | 89.21 | Y | | |
| PBXW-12 BULK EXPLOSIVE | | 2022 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 1,622 | 90.99 | Y | | |
| EXPLOSIVE FILL IMX-104 | | 2020 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2020 | Apr 2022 | 96,150 | 22.20 | Y | | |
| EXPLOSIVE FILL IMX-104 | | 2021 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Feb 2023 | 132,225 | 24.40 | Y | | |
| EXPLOSIVE FILL IMX-104 | | 2022 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Feb 2024 | 81,105 | 24.88 | Y | | |

Remarks:
 HE LAP: IDIQ awarded (FY 2017) to multiple contractors. Requirements are competed among the following contractors: Day and Zimmerman, Parsons, K S; American Ordnance, Middletown, IA; General Dynamics, Le Gardeur, QC, Canada.
 M27 FINS: IDIQ awarded (FY 2017) to multiple contractors. Requirements are competed among the following contractors: Gayston, Springboro, OH; Flexible Concepts Elkhart, IN. Ignition Cartridges: IDIQ awarded (FY 2018) to multiple contractors. Requirements are competed among the following contractors: Nammo Pocal INC., Scranton, PA and Pyrotechnique by Grucci INC., Radford, VA. Shell Body: IDIQ awarded (FY 2018) to General Dynamics OTS, Wilkes Barre, PA. Propellant Charges: IDIQ awarded (FY 2018) to multiple contractors. Requirements are competed among the following contractors: American Ordnance, Middletown, IA; and General Dynamics, Marion, IL.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
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| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types |
|---|---|

| | | |
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| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|---------------|---------------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 856.236 | 61.873 | 42.857 | 52.135 | - | 52.135 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 856.236 | 61.873 | 42.857 | 52.135 | - | 52.135 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 856.236 | 61.873 | 42.857 | 52.135 | - | 52.135 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes 81mm Mortar Ammunition, All Types.
The 81mm Mortar cartridges are designed for use with the M252 Mortar Weapon System used by the Stryker Brigade Combat Teams as well as light infantry battalions including Airborne, Air Assault and Ranger.

(E18403) CTG, MORTAR, 81MM HE M821 W/MOFM

The 81mm High Explosive (HE) Cartridges are Insensitive Munitions (IM) enhanced. The 81mm HE Cartridges consist of a fuze, a threaded plastic fuze adapter, a High Fragmentation (HF)-1 steel projectile body loaded with approximately 3lbs. of IMX-104 explosive, a plastic obturating ring, a M24 Fin, the M220 Propelling Charges, and a M299 Ignition Cartridge. The M821A2 HE (Range 70 meter minimum to 5,859 meter maximum) also incorporates the highly reliable and robust electronic countermeasure resistant M734A1 multi-option fuze. When the fuze is set in the proximity mode, it functions at a height over the target that is optimized for lethality. The IM features of this cartridge reduce the vulnerability to unplanned stimuli, e.g. fire/heat, shock and impact. In order to maintain the required effectiveness while implementing IM features, the M821A4 cartridge incorporates warhead modifications in order to meet all requirements. Specifically, the warhead will consists of a Fragmentation Sleeve with an HF-1 Steel body. All other components are the same and utilize existing production lines and production contracts. These items are Code A, approved for service use.

(E18404) CTG, MORTAR, 81MM HE M889 SERIES W/PD FUZE

The 81mm High Explosive Cartridges are Insensitive Munitions (IM) enhanced. The 81mm HE Cartridges consist of a fuze, a threaded plastic fuze adapter, a HF-1 steel projectile body loaded with approximately 3lbs. of IMX-104 explosive, a plastic obturating ring, a M24 Fin, the M220 Propelling Charges, and a M299 Ignition Cartridge. The M889A4 HE (Range 70 meter minimum to 5,859 meter maximum) is used with the new M783 dual safety, point detonating/delay fuze. This cartridge is used primarily in training because it is significantly less expensive than the M821A2, the preferred war fighting cartridge. However, the M889A4 is lethal and can be used in combat. The IM features of this cartridge reduce the vulnerability to unplanned stimuli, e.g. fire/heat, shock and impact, while maintaining or exceeding the same level of effectiveness in combat. These items are Code A, approved for service use.

(E69600) CTG, MORTAR, 81MM FRTR M879 SERIES W/PRACTICE FUZE

The M879 is a low-cost, full range, training round (FRTR) that will replace a percentage of the standard HE rounds used in 81mm mortar training. The M879 FRPC (Range 70 meter minimum to 5,800 meter maximum) has been designed to provide the user with realistic training at a fraction of the cost. It is identical in shape, size and weight to the M889A4/M821A4 HE cartridges. The flash, bang and smoke signature provided by the M751 practice fuze is channeled to exhaust holes in the rear of the cartridge through the use of a center vent tube. This item is Code A, approved for service use.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |

(E76200) CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE

The M819 Cartridge is a fin stabilized thin wall steel body tube containing 28 pelletized red phosphorous (RP) wedges; it uses the highly reliable M772 Mechanical Time Super Quick (MTSQ) fuze. After a set time delay, the RP wedges are ejected and dispersed on the target to quickly produce an obscuring smoke screen. A full screen can be developed with 3 rounds as opposed to 15 rounds with the M375 series WP cartridge that is used to create smoke screens to cover movement of troops and/or disrupt visibility of enemy forces. This cartridge was modified to include Gas Absorbent Modules (GAMS) that absorb the phosphine gas emitted by the RP to keep the cartridge stable. The M819 (Range 300 meter minimum and 4,900 maximum) is range-matched to the 81mm High Explosive (HE) and Illumination cartridges. This item is code A, approved for service use.

E76100 - CTG, MORTAR, 81MM VL ILLUM M853 SERIES W/MTSQ FUZE SYSTEM DESCRIPTION: The M853A1 cartridge is a fin stabilized, mortar cartridge that consists of a M772 Mechanical Time Super Quick (MTSQ) fuze, a thin wall aluminum body tube and aluminum tail cone that contains the payload (parachute and canister), and a fin assembly that contains the ignition cartridge and propelling charges. The payload is base ejected and upon ignition produces visible light illumination. This visible light illumination allows for monitoring of enemy activities and adjustment of fire at greater observation distances during night operations. It also provides a means for day/night signaling. It is particularly useful in combined operations with allies who may not have night vision devices (NVDs). This round illuminates to the full range of the HE round, which allows adjustment of fire at any distance out to the maximum range. The M853A1 (Range 300 meter minimum and 5,050 maximum) is range-matched to the 81mm High Explosive (HE) and smoke cartridges. This item is Code A, approved for service use.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition

P-1 Line Item Number / Title:
3584E76000 / 81MM Mortar, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E18403 / CTG, 81mm Mortar HE, M821 Series w/MOFM [CA66] | P-5a, P-21 | A | | - / 302.353 | - / 37.084 | - / 17.742 | - / 33.249 | - / - | - / 33.249 |
| P-5 | E18404 / CTG, 81mm Mortar HE, M889 Series w/PD Fuze [CA63] | P-5a | A | | - / 164.613 | - / - | - / 11.309 | - / - | - / - | - / - |
| P-5 | E69600 / CTG, 81mm FRTR, M879 Series w/Practice Fuze [C875] | P-5a | A | | - / 188.603 | - / 16.154 | - / 13.806 | - / 8.598 | - / - | - / 8.598 |
| P-5 | E76100 / CTG, 81mm Mortar VL ILLUM, M853 Series w/MTSQ Fuze [C871] | P-5a | A | | - / 96.052 | - / - | - / - | - / 10.288 | - / - | - / 10.288 |
| P-5 | E76200 / CTG, 81mm Mortar Smoke RP, M819 Series w/MTSQ Fuze [C870] | P-5a | A | | - / 104.615 | - / 8.635 | - / - | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 856.236 | - / 61.873 | - / 42.857 | - / 52.135 | - / - | - / 52.135 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
The FY 2022 Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base procurement dollars in the amount of \$52.135 million supports procurement of 78,836 cartridges.

(E18403) CTG, MORTAR, 81MM HE M821 SERIES W/MOFM
This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Total Base procurement dollars in the amount of \$33.249 million supports procurement of 34,030 cartridges.
TYPE CLASSIFICATION DATE: June 1996

(E18404) CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE
This is a training standard item used in training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.
TYPE CLASSIFICATION DATE: July 2009

(E69600) CTG, MORTAR, 81MM FRTR M879 SERIES W/PRACTICE FUZE
This is a training unique item not used in combat. FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Total Base procurement dollars in the amount of \$8.598 million supports procurement of 35,866 rounds.
TYPE CLASSIFICATION DATE: August 1986

(E76200) CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>This is a training standard item used in training and combat. The request supports annual training and builds a war reserve level in accordance with the Army's procurement goals. TYPE CLASSIFICATION DATE: December 1986</p> <p>E76100) CTG, MORTAR, 81MM VL ILLUM M853A1 SERIES W/MTSQ FUZE This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve level in accordance with the Army's procurement goals. FY 2022 Total Base procurement dollars in the amount of \$10.288 million supports procurement of 8,940 rounds. E76100 is a New Start in FY2022. TYPE CLASSIFICATION DATE: December 1986</p> | | |

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|---|--|--|--|--------------------|---|----------------|--|--|----------------|--|--|---------------------|--|--|--------------------|--|----------------------|--|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | Date: May 2021 | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | | | | Item Number / Title [DODIC]: E18403 / CTG, 81mm Mortar HE, M821 Series w/MOFM [CA66] | | | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | MDAP/MAIS Code: | | | | | | | |
| Resource Summary | | | | Prior Years | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | FY 2022 Total | |
| Procurement Quantity (Units in Each) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Cost (\$ in Millions) | | | | 302.353 | | 37.084 | | | 17.742 | | | 33.249 | | | - | | 33.249 | |
| Less PY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Net Procurement (P-1) (\$ in Millions) | | | | 302.353 | | 37.084 | | | 17.742 | | | 33.249 | | | - | | 33.249 | |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Total Obligation Authority (\$ in Millions) | | | | 302.353 | | 37.084 | | | 17.742 | | | 33.249 | | | - | | 33.249 | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | | - | | | - | | | - | | | - | | - | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 320.84 | 24,044 | 7.714 | 343.86 | 40,100 | 13.789 | 339.70 | 18,310 | 6.220 | 346.40 | 34,030 | 11.788 | - | - | - | 346.40 | 34,030 | 11.788 |
| SHELL BODY, 81MM HE M821A4 ^(†) | 81.55 | 24,765 | 2.020 | 83.73 | 41,303 | 3.458 | 86.45 | 18,859 | 1.630 | 86.59 | 35,051 | 3.035 | - | - | - | 86.59 | 35,051 | 3.035 |
| FIN MORTAR CTG M24 F/81MM ^(†) | 16.31 | 24,765 | 0.404 | 17.05 | 41,303 | 0.704 | 17.39 | 18,859 | 0.328 | 17.74 | 35,051 | 0.622 | - | - | - | 17.74 | 35,051 | 0.622 |
| IGN CTG M299 ^(†) | 14.91 | 24,765 | 0.369 | 15.36 | 41,303 | 0.634 | 15.82 | 18,859 | 0.298 | 16.13 | 35,051 | 0.565 | - | - | - | 16.13 | 35,051 | 0.565 |
| PROPELLANT CHARGE, M658 ^(†) | 13.96 | 99,062 | 1.383 | 12.62 | 165,212 | 2.085 | 11.97 | 75,437 | 0.903 | 14.06 | 140,203 | 1.971 | - | - | - | 14.06 | 140,203 | 1.971 |
| FUZE MOFM, M734A1 ^(†) | 308.60 | 24,765 | 7.643 | 225.00 | 41,303 | 9.293 | 249.17 | 18,859 | 4.699 | 254.14 | 35,051 | 8.908 | - | - | - | 254.14 | 35,051 | 8.908 |
| PBXW-12 BULK EXPLOSIVE ^(†) | 85.74 | 1,231 | 0.106 | 88.36 | 4,812 | 0.425 | 89.21 | 2,197 | 0.196 | 90.99 | 4,083 | 0.372 | - | - | - | 90.99 | 4,083 | 0.372 |
| EXPLOSIVE FILL IMX-104 ^(†) | 22.05 | 100,985 | 2.226 | 22.20 | 168,420 | 3.739 | 24.40 | 76,902 | 1.876 | 24.88 | 142,926 | 3.556 | - | - | - | 24.88 | 142,926 | 3.556 |
| <i>Subtotal: Recurring Cost</i> | - | - | 21.864 | - | - | 34.128 | - | - | 16.151 | - | - | 30.817 | - | - | - | - | - | 30.817 |
| <i>Subtotal: Hardware Cost</i> | - | - | 21.864 | - | - | 34.128 | - | - | 16.151 | - | - | 30.817 | - | - | - | - | - | 30.817 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.263 | - | - | 0.325 | - | - | 0.128 | - | - | 0.282 | - | - | - | - | - | 0.282 |

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|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | | | | Item Number / Title [DODIC]: E18403 / CTG, 81mm Mortar HE, M821 Series w/MOFM [CA66] | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.263 | - | - | 0.325 | - | - | 0.128 | - | - | 0.282 | - | - | - | - | - | 0.282 |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Reliability | - | - | - | - | - | 0.361 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | - | - | - | 0.361 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 280.226 | - | - | 2.269 | - | - | 1.463 | - | - | 2.150 | - | - | - | - | - | 2.150 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 280.226 | - | - | 2.269 | - | - | 1.463 | - | - | 2.150 | - | - | - | - | - | 2.150 |
| Gross/Weapon System Cost | - | - | 302.353 | - | - | 37.084 | - | - | 17.742 | - | - | 33.249 | - | - | - | - | - | 33.249 |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | | | Date: May 2021 | | |
|--|-----|------|---|--------------------------------|-------------------------|------------|------------------------|---|----------------|------------------|-------------------------|----------------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | P-1 Line Item Number / Title: | | | | | Item Number / Title [DODIC]: | | | | |
| 2034A / 01 / 33 | | | 3584E76000 / 81MM Mortar, All Types | | | | | E18403 / CTG, 81mm Mortar HE, M821 Series w/MOFM [CA66] | | | | |
| Cost Elements | OCO | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2020 | GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Jun 2020 | Jun 2023 | 40,100 | 343.86 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2021 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Aug 2021 | May 2024 | 18,310 | 339.70 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | May 2022 | May 2025 | 34,030 | 346.40 | Y | | |
| SHELL BODY, 81MM HE M821A4 | | 2020 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2020 | Aug 2021 | 41,303 | 83.73 | Y | | |
| SHELL BODY, 81MM HE M821A4 | | 2021 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2022 | 18,859 | 86.45 | Y | | |
| SHELL BODY, 81MM HE M821A4 | | 2022 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 35,051 | 86.59 | Y | | |
| FIN MORTAR CTG M24 F/81MM | | 2020 | FLEXIBLE CONCEPTS, INC. / ELKHART, IN | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2020 | Sep 2021 | 41,303 | 17.05 | Y | | |
| FIN MORTAR CTG M24 F/81MM | | 2021 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2021 | Oct 2022 | 18,859 | 17.39 | Y | | |
| FIN MORTAR CTG M24 F/81MM | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 35,051 | 17.74 | Y | | |
| IGN CTG M299 | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Aug 2021 | 41,303 | 15.36 | Y | | |
| IGN CTG M299 | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Dec 2020 | Jun 2022 | 18,859 | 15.82 | Y | | |
| IGN CTG M299 | | 2022 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 35,051 | 16.13 | Y | | |
| PROPELLANT CHARGE, M658 | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2020 | Sep 2021 | 165,212 | 12.62 | Y | | |
| PROPELLANT CHARGE, M658 | | 2021 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2021 | Oct 2022 | 75,437 | 11.97 | Y | | |
| PROPELLANT CHARGE, M658 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 140,203 | 14.06 | Y | | |
| FUZE MOFM, M734A1 | | 2020 | L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH | C / FFP | PICATINNY ARSENAL, NJ | May 2020 | Nov 2022 | 41,303 | 225.00 | Y | | |
| FUZE MOFM, M734A1 | | 2021 | L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH | Option / FFP | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2023 | 18,859 | 249.17 | Y | | |
| FUZE MOFM, M734A1 | | 2022 | TO BE SELECTED / TBS01 | Option / FFP | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2024 | 35,051 | 254.14 | Y | | |
| PBXW-12 BULK EXPLOSIVE | | 2020 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2020 | Oct 2021 | 4,812 | 88.36 | Y | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|---|--------------------------------------|-------------------------|------------|------------------------|--|-------------------|------------------|-------------------------|----------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | | | Item Number / Title [DODIC]: E18403 / CTG, 81mm Mortar HE, M821 Series w/MOFM [CA66] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| PBXW-12 BULK EXPLOSIVE | | 2021 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Aug 2022 | 2,197 | 89.21 | Y | | |
| PBXW-12 BULK EXPLOSIVE | | 2022 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 4,083 | 90.99 | Y | | |
| EXPLOSIVE FILL IMX-104 | | 2020 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2020 | Apr 2022 | 168,420 | 22.20 | Y | | |
| EXPLOSIVE FILL IMX-104 | | 2021 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Feb 2023 | 76,902 | 24.40 | Y | | |
| EXPLOSIVE FILL IMX-104 | | 2022 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Feb 2024 | 142,926 | 24.88 | Y | | |

(†) indicates the presence of a P-21

Remarks:

Ignition Cartridges: IDIQ awarded (FY 2018) to Nammo Pocal Industries, S cranton, PA. HE LAP: IDIQ awarded (FY 2017) to multiple contractors. Requirements wil l be competed among the following contractors: Day and Zimmerman, Parson s, KS; General Dynamics, Le Gardeur, Canada; American Ordnance, Middleto wn, IA. HE Shell Bodies: IDIQ awarded (FY 2018) to General Dynamics OTS, Wilkes Barre, PA. Fins: IDIQ awarded (FY 2017) to multiple contractors. Requirements will be competed among the following contractors: Gayston Corp., Springboro, OH and Flexible Concepts, Elkhart, IN.

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|--|--|--|--|---|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | Date: May 2021 | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | | Item Number / Title [DODIC]: E18403 / CTG, 81mm Mortar HE, M821 Series w/MOFM [CA66] | | | |

| Cost Elements (Units in Thousands) | | | | | | Fiscal Year 2020 | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | B A L A N C E | |
|---------------------------------------|------------------|-------------|--------------|---------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 24044 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 40.100 | .000 | 40.100 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | MC (+) | 55.464 | .000 | 55.464 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | Total | 95.564 | .000 | 95.564 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2021 | ARMY | 18.310 | .000 | 18.310 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2021 | MC (+) | 41.093 | .000 | 41.093 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2021 | Total | 59.403 | .000 | 59.403 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2022 | ARMY | 34.030 | .000 | 34.030 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2022 | MC (+) | .977 | .000 | .977 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2022 | Total | 35.007 | .000 | 35.007 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | | | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | | | | | | | | Item Number / Title [DODIC]: E18403 / CTG, 81mm Mortar HE, M821 Series w/MOFM [CA66] | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | B A L A N C E | | | |
|--|------------------|-------------|--------------|---------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|---------------------------------|---------------|---------------|---------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 24044 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 40.100 | .000 | 40.100 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12.000 | 12.000 | 12.000 | 4.100 | .000 |
| | 1 | 2020 | MC (†) | 55.464 | .000 | 55.464 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 14.167 | 12.000 | 12.000 | 12.000 | 5.297 |
| | 1 | 2020 | Total | 95.564 | .000 | 95.564 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 26.167 | 24.000 | 24.000 | 16.100 | 5.297 |
| | 2 | 2021 | ARMY | 18.310 | .000 | 18.310 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 18.310 |
| | 2 | 2021 | MC (†) | 41.093 | .000 | 41.093 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 41.093 |
| | 2 | 2021 | Total | 59.403 | .000 | 59.403 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 59.403 |
| | 2 | 2022 | ARMY | 34.030 | .000 | 34.030 | | | | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 34.030 |
| | 2 | 2022 | MC (†) | .977 | .000 | .977 | | | | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .977 |
| | 2 | 2022 | Total | 35.007 | .000 | 35.007 | | | | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 35.007 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | | | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | | | | | | | | Item Number / Title [DODIC]: E18403 / CTG, 81mm Mortar HE, M821 Series w/MOFM [CA66] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2024 | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | BALANCE | | |
|--|-------------|--------------|---------------|---------------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|---------------|---------------|---------------|--------------|------------------|-------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------------|-------------|---------|-------|-------|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | | A U G | S E P |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 24044 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 40.100 | 40.100 | .000 | - | | | | | | | | | | | | | | | | | | | | | | .000 | | | |
| 1 | 2020 | MC (†) | 55.464 | 50.167 | 5.297 | 5.297 | | | | | | | | | | | | | | | | | | | | | | .000 | | | |
| 1 | 2020 | Total | 95.564 | 90.267 | 5.297 | 5.297 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | | |
| 2 | 2021 | ARMY | 18.310 | .000 | 18.310 | - | | | | | | | 12.000 | 6.310 | - | - | | | | | | | | | | | | .000 | | | |
| 2 | 2021 | MC (†) | 41.093 | .000 | 41.093 | - | | | | | | | 12.000 | 12.000 | 12.000 | 5.093 | | | | | | | | | | | | .000 | | | |
| 2 | 2021 | Total | 59.403 | .000 | 59.403 | - | - | - | - | - | - | - | 24.000 | 18.310 | 12.000 | 5.093 | - | - | - | - | - | - | - | - | - | - | - | .000 | | | |
| 2 | 2022 | ARMY | 34.030 | .000 | 34.030 | - | | | | | | | | | | | | | | | | | | | | | | .000 | | | |
| 2 | 2022 | MC (†) | .977 | .000 | .977 | - | | | | | | | | | | | | | | | | | | | | | .000 | | | | |
| 2 | 2022 | Total | 35.007 | .000 | 35.007 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types |
| Item Number / Title [DODIC]: E18403 / CTG, 81mm Mortar HE, M821 Series w/MOFM [CA66] | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | GEN DYNAMICS ORD & TAC SYS - - LE GARDEUR, CANADA | 4,000 | 12,000 | 36,000 | 8 | 8 | 36 | 44 | 8 | 8 | 36 | 44 |
| 2 | TO BE SELECTED - TBS01 | 4,000 | 12,000 | 30,000 | 8 | 8 | 36 | 44 | 8 | 8 | 36 | 44 |

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | Item Number / Title [DODIC]: E18404 / CTG, 81mm Mortar HE, M889 Series w/PD Fuze [CA63] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|----------------|----------|---------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 164.613 | - | 11.309 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 164.613 | - | 11.309 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 164.613 | - | 11.309 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 83.27 | 87,382 | 7.277 | - | - | - | 91.66 | 19,368 | 1.775 | - | - | - | - | - | - | - | - | - |
| FUZE POINT DETONATOR M783 ^(†) | 187.94 | 90,003 | 16.915 | - | - | - | 170.51 | 19,949 | 3.402 | - | - | - | - | - | - | - | - | - |
| SHELL BODY, 81MM HE ^(†) | 50.74 | 90,003 | 4.567 | - | - | - | 52.19 | 19,949 | 1.041 | - | - | - | - | - | - | - | - | - |
| IGN CTG M299 ^(†) | 14.80 | 90,003 | 1.332 | - | - | - | 15.82 | 19,949 | 0.316 | - | - | - | - | - | - | - | - | - |
| CHG PROP 81MM M220 ^(†) | 11.92 | 360,013 | 4.291 | - | - | - | 14.80 | 79,796 | 1.181 | - | - | - | - | - | - | - | - | - |
| FIN MORTAR CTG M24 F/81MM ^(†) | 16.18 | 90,003 | 1.457 | - | - | - | 17.39 | 19,949 | 0.347 | - | - | - | - | - | - | - | - | - |
| PBXW-12 BULK EXPLOSIVE ^(†) | 85.74 | 3,660 | 0.314 | - | - | - | 89.21 | 2,324 | 0.207 | - | - | - | - | - | - | - | - | - |
| EXPLOSIVE FILL IMX-104 ^(†) | 21.87 | 367,004 | 8.026 | - | - | - | 24.40 | 81,346 | 1.985 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 44.179 | - | - | - | - | - | 10.254 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 44.179 | - | - | - | - | - | 10.254 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.665 | - | - | - | - | - | 0.150 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types |
| | | Item Number / Title [DODIC]: E18404 / CTG, 81mm Mortar HE, M889 Series w/PD Fuze [CA63] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.665 | - | - | - | - | - | 0.150 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 119.769 | - | - | - | - | - | 0.906 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 119.769 | - | - | - | - | - | 0.906 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 164.613 | - | - | - | - | - | 11.309 | - | - | - | - | - | - | - | - | - |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | | Item Number / Title [DODIC]: E18404 / CTG, 81mm Mortar HE, M889 Series w/PD Fuze [CA63] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------------------|-------------|------|---|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2021 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | May 2021 | Nov 2023 | 19,368 | 91.66 | Y | | |
| FUZE POINT DETONATOR M783 | | 2021 | L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH | Option / FFP | PICATINNY ARSENAL, NJ | Dec 2020 | Dec 2022 | 19,949 | 170.51 | Y | | |
| SHELL BODY, 81MM HE | | 2021 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2022 | 19,949 | 52.19 | Y | | |
| IGN CTG M299 | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Dec 2020 | Jun 2022 | 19,949 | 15.82 | Y | | |
| CHG PROP 81MM M220 | | 2021 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 79,796 | 14.80 | Y | | |
| FIN MORTAR CTG M24 F/81MM | | 2021 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2021 | Oct 2022 | 19,949 | 17.39 | Y | | |
| PBXW-12 BULK EXPLOSIVE | | 2021 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Aug 2022 | 2,324 | 89.21 | Y | | |
| EXPLOSIVE FILL IMX-104 | | 2021 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Feb 2023 | 81,346 | 24.40 | Y | | |

Remarks:
 Ignition Cartridges: IDIQ awarded (FY 2018) to Nammo Pocal Industries, S cranton, PA. HE LAP: IDIQ awarded (FY 2017) to multiple contractors. Requirements wil l be competed among the following contractors: Day and Zimmerman, Parson s, KS; General Dynamics, Le Gardeur, Canada; American Ordnance, Middleto wn, IA. HE Shell Bodes: IDIQ awarded (FY 2018) to Genreal Dynamics OTS, Wilkes Barre, PA. M220 Propellant Charges: IDIQ awarded (FY 2018) to multiple contractors. Requirements will be competed among the following contractors: American Ordnance, Middletown, IA; and General Dynamics, Marion IL. Fins: IDIQ awarded (FY 2017) to multiple contractors. Requirements will be competed among the following contractors: Gayston Corp., Springboro, OH and Flexible Concepts, Elkhart, IN.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | Date: May 2021 | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | | | | Item Number / Title [DODIC]: E69600 / CTG, 81mm FRTR, M879 Series w/Practice Fuze [C875] | | | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | MDAP/MAIS Code: | | | | | | | |
| Resource Summary | | | | Prior Years | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | FY 2022 Total | |
| Procurement Quantity (Units in Each) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Cost (\$ in Millions) | | | | 188.603 | | 16.154 | | | 13.806 | | | 8.598 | | | - | | 8.598 | |
| Less PY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Net Procurement (P-1) (\$ in Millions) | | | | 188.603 | | 16.154 | | | 13.806 | | | 8.598 | | | - | | 8.598 | |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Total Obligation Authority (\$ in Millions) | | | | 188.603 | | 16.154 | | | 13.806 | | | 8.598 | | | - | | 8.598 | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | | - | | | - | | | - | | | - | | - | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 41.11 | 182,230 | 7.492 | 42.81 | 70,559 | 3.021 | 45.70 | 58,681 | 2.682 | 46.53 | 35,866 | 1.669 | - | - | - | 46.53 | 35,866 | 1.669 |
| FUZE PRACTICE, M751 ^(†) | 19.95 | 187,697 | 3.744 | 20.50 | 72,676 | 1.490 | 21.09 | 60,441 | 1.275 | 21.56 | 36,942 | 0.796 | - | - | - | 21.56 | 36,942 | 0.796 |
| SHELL BODY, 81MM FRPC ^(†) | 43.78 | 187,697 | 8.217 | 44.59 | 72,676 | 3.241 | 45.19 | 60,441 | 2.731 | 47.61 | 36,942 | 1.759 | - | - | - | 47.61 | 36,942 | 1.759 |
| IGN CTG M299 ^(†) | 14.82 | 187,697 | 2.782 | 15.36 | 72,676 | 1.116 | 15.82 | 60,441 | 0.956 | 16.13 | 36,942 | 0.596 | - | - | - | 16.13 | 36,942 | 0.596 |
| CHG PROP 81MM M220 ^(†) | 12.07 | 750,788 | 9.064 | 14.51 | 290,703 | 4.218 | 14.80 | 241,766 | 3.578 | 15.10 | 147,768 | 2.231 | - | - | - | 15.10 | 147,768 | 2.231 |
| FIN MORTAR CTG M24 F/81MM ^(†) | 15.11 | 187,697 | 2.836 | 17.05 | 72,676 | 1.239 | 17.39 | 60,441 | 1.051 | 17.74 | 36,942 | 0.655 | - | - | - | 17.74 | 36,942 | 0.655 |
| <i>Subtotal: Recurring Cost</i> | - | - | 34.135 | - | - | 14.325 | - | - | 12.273 | - | - | 7.707 | - | - | - | - | - | 7.707 |
| <i>Subtotal: Hardware Cost</i> | - | - | 34.135 | - | - | 14.325 | - | - | 12.273 | - | - | 7.707 | - | - | - | - | - | 7.707 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 1.292 | - | - | 0.543 | - | - | 0.428 | - | - | 0.281 | - | - | - | - | - | 0.281 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 1.292 | - | - | 0.543 | - | - | 0.428 | - | - | 0.281 | - | - | - | - | - | 0.281 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 153.176 | - | - | 1.286 | - | - | 1.105 | - | - | 0.610 | - | - | - | - | - | 0.610 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | Item Number / Title [DODIC]: E69600 / CTG, 81mm FRTR, M879 Series w/Practice Fuze [C875] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 153.176 | - | - | 1.286 | - | - | 1.105 | - | - | 0.610 | - | - | - | - | - | 0.610 |
| Gross/Weapon System Cost | - | - | 188.603 | - | - | 16.154 | - | - | 13.806 | - | - | 8.598 | - | - | - | - | - | 8.598 |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|---|--------------------------------------|-------------------------|---------------|------------------------------|---|-------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | P-1 Line Item Number / Title: | | | | | Item Number / Title [DODIC]: | | | | |
| 2034A / 01 / 33 | | | 3584E76000 / 81MM Mortar, All Types | | | | | E69600 / CTG, 81mm FRTR, M879 Series w/Practice Fuze [C875] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| LOAD, ASSEMBLE, PACK (LAP) | | 2020 | DAY & ZIMMERMAN (KSAAP) / PARSONS, KS | Option / IDIQ | ROCK ISLAND ARSENAL, IL | May 2020 | May 2022 | 70,559 | 42.81 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2021 | DAY & ZIMMERMAN (KSAAP) / PARSONS, KS | Option / IDIQ | ROCK ISLAND ARSENAL, IL | May 2021 | May 2023 | 58,681 | 45.70 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2022 | DAY & ZIMMERMAN (KSAAP) / PARSONS, KS | Option / IDIQ | ROCK ISLAND ARSENAL, IL | May 2022 | May 2024 | 35,866 | 46.53 | Y | | |
| FUZE PRACTICE, M751 | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2019 | Jun 2021 | 72,676 | 20.50 | Y | | |
| FUZE PRACTICE, M751 | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2022 | 60,441 | 21.09 | Y | | |
| FUZE PRACTICE, M751 | | 2022 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 36,942 | 21.56 | Y | | |
| SHELL BODY, 81MM FRPC | | 2020 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2019 | Jun 2021 | 72,676 | 44.59 | Y | | |
| SHELL BODY, 81MM FRPC | | 2021 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2022 | 60,441 | 45.19 | Y | | |
| SHELL BODY, 81MM FRPC | | 2022 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 36,942 | 47.61 | Y | | |
| IGN CTG M299 | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Aug 2021 | 72,676 | 15.36 | Y | | |
| IGN CTG M299 | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Dec 2020 | Jun 2022 | 60,441 | 15.82 | Y | | |
| IGN CTG M299 | | 2022 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 36,942 | 16.13 | Y | | |
| CHG PROP 81MM M220 | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Jan 2020 | Jul 2021 | 290,703 | 14.51 | Y | | |
| CHG PROP 81MM M220 | | 2021 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 241,766 | 14.80 | Y | | |
| CHG PROP 81MM M220 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 147,768 | 15.10 | Y | | |
| FIN MORTAR CTG M24 F/81MM | | 2020 | FLEXIBLE CONCEPTS, INC. / ELKHART, IN | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2020 | Sep 2021 | 72,676 | 17.05 | Y | | |
| FIN MORTAR CTG M24 F/81MM | | 2021 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2021 | Oct 2022 | 60,441 | 17.39 | Y | | |
| FIN MORTAR CTG M24 F/81MM | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 36,942 | 17.74 | Y | | |
| Remarks: | | | | | | | | | | | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | Item Number / Title [DODIC]: E69600 / CTG, 81mm FRTR, M879 Series w/Practice Fuze [C875] |

FRPC Shell Bodes: IDIQ awarded (FY 2018) to General Dynamics, OTS, Wilkes Barre, PA. Ignition Cartridges: IDIQ awarded (FY 2018) to Nammo Pocal Industries, S cranton, PA. M220 Propellant Charges: IDIQ awarded (FY 2018) to multiple contractors. Requirements will be competed among the following contractors: American Ordnance, Middletown, IA; and General Dynamics, Marion, IL. Fins: IDIQ awarded (FY 2017) to multiple contractors. Requirements will be competed among the following contractors: Gayston Corp., Springboro, OH and Flexible Concepts, Elkhart, IN.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | Item Number / Title [DODIC]: E76100 / CTG, 81mm Mortar VL ILLUM, M853 Series w/MTSQ Fuze [C871] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 96.052 | - | - | 10.288 | - | 10.288 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 96.052 | - | - | 10.288 | - | 10.288 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 96.052 | - | - | 10.288 | - | 10.288 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | - | - | - | - | - | - | - | - | - | 280.48 | 8,940 | 2.507 | - | - | - | 280.48 | 8,940 | 2.507 |
| FUZE MTSQ, M772 ^(†) | - | - | - | - | - | - | - | - | - | 260.17 | 9,207 | 2.395 | - | - | - | 260.17 | 9,207 | 2.395 |
| BODY TUBE, 81MM ILLUM ^(†) | - | - | - | - | - | - | - | - | - | 44.76 | 9,207 | 0.412 | - | - | - | 44.76 | 9,207 | 0.412 |
| TAIL CONE, 81MM ILLUM ^(†) | - | - | - | - | - | - | - | - | - | 21.88 | 9,207 | 0.201 | - | - | - | 21.88 | 9,207 | 0.201 |
| IGN CTG M752 ^(†) | - | - | - | - | - | - | - | - | - | 26.68 | 9,207 | 0.246 | - | - | - | 26.68 | 9,207 | 0.246 |
| CHG PROP 81MM M219 ^(†) | - | - | - | - | - | - | - | - | - | 13.95 | 36,833 | 0.514 | - | - | - | 13.95 | 36,833 | 0.514 |
| FIN MORTAR CTG M28 F/81MM M819 RP ^(†) | - | - | - | - | - | - | - | - | - | 18.40 | 9,207 | 0.169 | - | - | - | 18.40 | 9,207 | 0.169 |
| ILLUM CANDLE VL F/81MM M853A1 ^(†) | - | - | - | - | - | - | - | - | - | 214.44 | 9,207 | 1.974 | - | - | - | 214.44 | 9,207 | 1.974 |
| PARACHUTE, 81MM ^(†) | - | - | - | - | - | - | - | - | - | 31.49 | 9,207 | 0.290 | - | - | - | 31.49 | 9,207 | 0.290 |
| FIBER CONTAINER PA 162, 81MM ^(†) | - | - | - | - | - | - | - | - | - | 6.49 | 9,207 | 0.060 | - | - | - | 6.49 | 9,207 | 0.060 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | | | | Item Number / Title [DODIC]: E76100 / CTG, 81mm Mortar VL ILLUM, M853 Series w/MTSQ Fuze [C871] | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| METAL CONTAINER PA 157, 81MM ^(t) | - | - | - | - | - | - | - | - | - | 68.08 | 3,039 | 0.207 | - | - | - | 68.08 | 3,039 | 0.207 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 8.976 | - | - | - | - | - | 8.976 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 8.976 | - | - | - | - | - | 8.976 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | - | - | - | - | - | - | 0.162 | - | - | - | - | - | 0.162 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.162 | - | - | - | - | - | 0.162 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 96.052 | - | - | - | - | - | - | - | - | 1.150 | - | - | - | - | - | 1.150 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 96.052 | - | - | - | - | - | - | - | - | 1.150 | - | - | - | - | - | 1.150 |
| Gross/Weapon System Cost | - | - | 96.052 | - | - | - | - | - | - | - | - | 10.288 | - | - | - | - | - | 10.288 |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | | Item Number / Title [DODIC]: E76100 / CTG, 81mm Mortar VL ILLUM, M853 Series w/MTSQ Fuze [C871] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|--------------------------------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2022 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Mar 2022 | Jul 2024 | 8,940 | 280.48 | Y | | |
| FUZE MTSQ, M772 | | 2022 | JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY | SS / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Sep 2023 | 9,207 | 260.17 | Y | | |
| BODY TUBE, 81MM ILLUM | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 9,207 | 44.76 | Y | | |
| TAIL CONE, 81MM ILLUM | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 9,207 | 21.88 | Y | | |
| IGN CTG M752 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 9,207 | 26.68 | Y | | |
| CHG PROP 81MM M219 | | 2022 | TO BE SELECTED / TBS01 | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 36,833 | 13.95 | Y | | |
| FIN MORTAR CTG M28 F/81MM M819 RP | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 9,207 | 18.40 | Y | | |
| ILLUM CANDLE VL F/81MM M853A1 | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2022 | Oct 2023 | 9,207 | 214.44 | Y | | |
| PARACHUTE, 81MM | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2022 | Sep 2023 | 9,207 | 31.49 | Y | | |
| FIBER CONTAINER PA 162, 81MM | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Sep 2023 | 9,207 | 6.49 | Y | | |
| METAL CONTAINER PA 157, 81MM | | 2022 | BWAY CORP / ATLANTA, GA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Sep 2023 | 3,039 | 68.08 | Y | | |

Remarks:
Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | Item Number / Title [DODIC]: E76200 / CTG, 81mm Mortar Smoke RP, M819 Series w/MTSQ Fuze [C870] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | | 104.615 | 8.635 | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | | 104.615 | 8.635 | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | | 104.615 | 8.635 | - | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 291.85 | 23,608 | 6.890 | 535.88 | 1,925 | 1.032 | - | - | - | - | - | - | - | - | - | - | - | - |
| FIN MORTAR CTG M28 F/81MM M819 RP ^(†) | 16.76 | 24,316 | 0.408 | 18.00 | 1,983 | 0.036 | - | - | - | - | - | - | - | - | - | - | - | - |
| IGN CTG M752 ^(†) | 21.57 | 24,316 | 0.524 | 21.37 | 1,983 | 0.042 | - | - | - | - | - | - | - | - | - | - | - | - |
| PROPELLANT CHARGE, M218 ^(†) | 12.05 | 97,265 | 1.172 | 12.62 | 7,931 | 0.100 | - | - | - | - | - | - | - | - | - | - | - | - |
| FUZE MTSQ, M772 ^(†) | 246.39 | 24,316 | 5.991 | 248.21 | 1,983 | 0.492 | - | - | - | - | - | - | - | - | - | - | - | - |
| BODY TUBE, 81MM RP SMK ^(†) | 25.77 | 24,316 | 0.627 | 28.18 | 1,983 | 0.056 | - | - | - | - | - | - | - | - | - | - | - | - |
| TAIL CONE, 81MM SMOKE ^(†) | 23.72 | 24,316 | 0.577 | 24.50 | 1,983 | 0.049 | - | - | - | - | - | - | - | - | - | - | - | - |
| GAMS ^(†) | 8.69 | 48,944 | 0.425 | 9.03 | 4,004 | 0.036 | - | - | - | - | - | - | - | - | - | - | - | - |
| FIBER CONTAINER PA 162, 81MM ^(†) | 6.06 | 24,316 | 0.147 | 6.37 | 1,983 | 0.013 | - | - | - | - | - | - | - | - | - | - | - | - |
| METAL CONTAINER PA 157, 81MM ^(†) | 56.78 | 6,301 | 0.358 | 55.60 | 241 | 0.013 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 17.119 | - | - | 1.869 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | Item Number / Title [DODIC]: E76200 / CTG, 81mm Mortar Smoke RP, M819 Series w/MTSQ Fuze [C870] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Hardware Cost</i> | - | - | 17.119 | - | - | 1.869 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.680 | - | - | 0.527 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.680 | - | - | 0.527 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Non-Recurring Support Cost | | | | | | | | | | | | | | | | | | |
| Industrial Stock | - | - | - | - | - | 0.177 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Non-Recurring Support Cost</i> | - | - | - | - | - | 0.177 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Reliability | - | - | - | - | - | 2.700 | - | - | - | - | - | - | - | - | - | - | - | - |
| Safety | - | - | - | - | - | 2.320 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | - | - | - | 5.020 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 86.815 | - | - | 1.042 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 86.815 | - | - | 1.042 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 104.615 | - | - | 8.635 | - | - | - | - | - | - | - | - | - | - | - | - |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types | | | | Item Number / Title [DODIC]: E76200 / CTG, 81mm Mortar Smoke RP, M819 Series w/MTSQ Fuze [C870] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-----------------------------------|-------------|------|---|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2020 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Mar 2020 | Nov 2022 | 1,925 | 535.88 | Y | | |
| FIN MORTAR CTG M28 F/81MM M819 RP | | 2020 | FLEXIBLE CONCEPTS, INC. / ELKHART, IN | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2020 | Sep 2021 | 1,983 | 18.00 | Y | | |
| IGN CTG M752 | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Jan 2021 | 1,983 | 21.37 | Y | | |
| PROPELLANT CHARGE, M218 | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | May 2020 | Jul 2021 | 7,931 | 12.62 | Y | | |
| FUZE MTSQ, M772 | | 2020 | JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY | SS / FFP | ROCK ISLAND ARSENAL, IL | Apr 2020 | Dec 2021 | 1,983 | 248.21 | Y | | |
| BODY TUBE, 81MM RP SMK | | 2020 | LEWIS ENGINEERING COMPANY / MARSHALL, TX | C / IDIQ | PICATINNY ARSENAL, NJ | Apr 2020 | May 2021 | 1,983 | 28.18 | Y | | |
| TAIL CONE, 81MM SMOKE | | 2020 | LEWIS ENGINEERING COMPANY / MARSHALL, TX | C / IDIQ | PICATINNY ARSENAL, NJ | Apr 2020 | May 2021 | 1,983 | 24.50 | Y | | |
| GAMS | | 2020 | DESIGN WEST TECHNOLOGIES, / TUSTIN, CA | C / FFP | ROCK ISLAND ARSENAL, IL | Apr 2021 | Sep 2021 | 4,004 | 9.03 | Y | | |
| FIBER CONTAINER PA 162, 81MM | | 2020 | UNITED AMMUNITION CONTAINER / MILAN, TN | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2020 | Jul 2021 | 1,983 | 6.37 | Y | | |
| METAL CONTAINER PA 157, 81MM | | 2020 | BWAY CORPORATION / ATLANTA, GA | C / IDIQ | PICATINNY ARSENAL, NJ | Feb 2020 | Oct 2020 | 241 | 55.60 | Y | | |

Remarks:
 Body tube and Tail Cones: IDIQ awarded (FY 2018) to General Dynamics, Wilkes Barre, PA and Lewis Engineering Company, Marshall, TX. Ignition Cartridges: IDIQ awarded (FY 2018) to Nammo Pocal Industries, Scranton, PA. Propellant Charges: IDIQ awarded (FY 2018) to multiple contractors. Requirements will be competed among the following contractors: American Ordnance, Middletown, IA; and General Dynamics, Marion, IL. Fins: IDIQ awarded (FY 2017) to multiple contractors. Requirements will be competed among the following contractors: Gayston Corp., Springboro, OH and Flexible Concepts, Elkhart, IN.

Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition

P-1 Line Item Number / Title:
6780E25500 / 120MM Mortar, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|--|------------------|----------------|----------------|----------------|-------------|----------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 2,129.964 | 123.110 | 117.762 | 104.144 | - | 104.144 | - | - | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 2,129.964 | 123.110 | 117.762 | 104.144 | - | 104.144 | - | - | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 2,129.964 | 123.110 | 117.762 | 104.144 | - | 104.144 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (\$ in Dollars) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line item includes 120MM Mortars, All Types.
The 120mm Mortar Cartridges are designed for use with the M120, 120mm Towed Mortar System and the M121 Carrier Mortar System as well as use with the Brigade Combat Team Mortar System.

(E25502) CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE

The M933A1 120mm High Explosive (HE) cartridge with the M783 Point Detonating/ Delay (PD/DLY) Fuze is used against personnel, bunker and light materiel targets. It consists of a Steel Shell Body with Composition B fill, and aluminum M31 Fin Assembly. The propulsion system utilizes the M1020 Ignition Cartridge and four horseshoe-shaped, water-resistant M234 Propelling Charges. The M933A1 HE (Range 200 meter minimum to 7,200 meter maximum) is used with the new M783 dual safety, point detonating/delay fuze. This round is used primarily in training because it is significantly less expensive than the M934A1, the preferred war fighting round. However, the M933A1 is lethal and can be used in combat.
This item is Code A, approved for service use.

(E25507) CTG, MORTAR, 120MM FRTR M931 SERIES W/PRACT FUZE

The M931 is a low-cost, full range, training round (FRTR) that will replace a percentage of the standard High Explosive (HE) cartridges used in 120mm mortar training. The M931 Full Range Practice Round (FRPR) (Range 200 meter minimum to 7,200 meter maximum) has been designed to provide the user with realistic training for 120mm Mortar crews at a fraction of the cost. It is identical in shape, size and weight to the M933A1/M934A1 HE cartridges. The M931 is equipped with M781 PD Practice Fuze. The M781 PD Practice Fuze produces a flash, bang, and smoke signature that provides audio/visual feedback to the mortar crew and forward observer.
This item is Code A, approved for service use.

(E91300) CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM

The M929 White Phosphorous (WP) Smoke Cartridge is used to provide smoke, with some incendiary effect for various screening missions. The cartridge is filled with 5 lbs of WP. The M929 uses the highly reliable and robust electronic countermeasure resistant M734A1 multi-option fuze when functions, detonates the burster, which disperses the felt pads which are soaked with WP over the target. The smoke obscuration is generated by a spontaneous reaction between the WP and oxygen. The M929 (Range 200 meter minimum and 7,200 maximum) is range-matched to the 120mm High Explosive (HE) and Illumination cartridges.
This item is Code A, approved for service use.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(E91400) CTG, MORTAR, 120MM HE M934 SERIES W/MOFM FUZE The M934A1 120mm High Explosive (HE) cartridge with the M734A1 multi-option Fuze is used against personnel, bunker and light materiel targets. It consists of a Steel Shell Body with Composition B fill, and aluminum M31 Fin Assembly. The propulsion system utilizes the M1020 Ignition Cartridge and four horseshoe-shaped, water-resistant M234 Propelling Charges. The M934A1 HE (Range 200 meter minimum to 7,200 meter maximum) uses the highly reliable and countermeasure resistant M734A1 multi-option fuze. The proximity setting will burst the cartridge at a height over the target that is optimized for lethality. This item is Code A, approved for service use.</p> <p>(E91500) CTG, MORTAR, 120MM IR ILLUM M983 SERIES W/ MTSQ FUZE The M983 120mm Infra-Red (IR) Illumination cartridge is ballistically similar to the M930 Visible Light Illumination cartridge except for the chemical composition of the illuminating material and provides a field of view equal or greater to that of the M930 VL cartridge. The M983 cartridge is a fin stabilized, mortar cartridge that consists of the M776 Mechanical Time Super Quick (MTSQ) fuze, a steel 2 piece shell body, and a fin assembly. The payload is base ejected. The advantage is that there is minimal visible light. This reduces the possibility of exposing forward friendly troop positions while also allowing covert adjustment of fire at greater observation distances through the use of passive Night Vision Devices (NVDs). The M983 IR (Range 375 meters minimum to 6,675 meters maximum) illuminates to the full range of the M934A1 HE cartridge. The item is Code A, approved for service use.</p> <p>(E25503) CTG, MORTAR, 120MM VL ILLUM M930 SERIES W/ MTSQ FUZE The M930 cartridge is a fin stabilized mortar cartridge that consists of a M776 Mechanical Time Super Quick (MTSQ) fuze, a steel 2-piece shell body that contains the parachute and canister, and a fin assembly. The payload is base ejected and upon ignition produces Visible Light (VL) illumination. This VL illumination allows for monitoring of enemy activities and adjustment of fire at greater observation instances during night operations. It also provides a means for day/night signaling. The M930 VL (Range 400 meter minimum to 6,900 meter maximum) illuminates to the full range of the M934A1 high explosive round, which allows adjustment of fire at any distance out to the maximum range, and provides a significant increase in illumination intensity and effectiveness over the 4.2-inch cartridge that it replaces. This item is Code A, approved for service use.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types |

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| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E25502 / CTG, 120mm Mortar HE, M933 Series w/PD Fuze [CA44] | P-5a, P-21 | A | | - / 474.178 | - / 17.118 | - / 14.482 | - / 29.366 | - / - | - / 29.366 |
| P-5 | E25503 / CTG, 120mm Mortar VL ILLM, M930 Series w/MTSQ Fuze | P-5a | A | | - / 444.434 | - / - | - / - | - / 13.158 | - / - | - / 13.158 |
| P-5 | E25507 / CTG, 120mm Mortar FRTR, M931 Series w/Pract Fuze [CA09] | P-5a, P-21 | A | | - / 634.668 | - / 35.530 | - / 51.124 | - / 28.440 | - / - | - / 28.440 |
| P-5 | E91300 / CTG, 120mm Mortar WP Smoke, M929 Series w/MOFM [CA03] | P-5a, P-21 | A | | - / 222.947 | - / 51.962 | - / 26.963 | - / 18.792 | - / - | - / 18.792 |
| P-5 | E91400 / CTG, 120mm Mortar HE, M934 Series w/MOFM [CA04] | P-5a | A | | - / 148.206 | - / 18.500 | - / 12.341 | - / 14.388 | - / - | - / 14.388 |
| P-5 | E91500 / CTG, 120mm Mortar IR ILLUM, M983 Series w/MTSQ | P-5a | A | | - / 205.531 | - / - | - / 12.852 | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 2,129.964 | - / 123.110 | - / 117.762 | - / 104.144 | - / - | - / 104.144 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$104.144 million supports the procurement of 137,042 cartridges.

(E25502) CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE
 This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$29.366 million supports production of 35,434 cartridges.
 TYPE CLASSIFICATION DATE: 2009

(E25507) CTG, MORTAR, 120MM FRTR M931 SERIES W/PRACT FUZE
 This is a training unique item not used in combat. FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY2022 Base procurement dollars in the amount of \$28.440 million supports the procurement of 63,642 rounds.
 TYPE CLASSIFICATION DATE: 1996

(E91300) CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM
 This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$18.792 million supports the procurement of 13,843 cartridges.
 TYPE CLASSIFICATION DATE: 1996

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |

(E91400) CTG, MORTAR, 120MM HE M934 SERIES W/MOFM FUZE
 This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$14.388 million supports production of 15,703 cartridges.
 TYPE CLASSIFICATION DATE: 2009

(E91500) CTG, MORTAR, 120MM IR ILLUM M983 SERIES W/MTSQ FUZE
 This is a training standard item used in training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.
 TYPE CLASSIFICATION DATE: 2000

(E25503) CTG, MORTAR, 120MM VL ILLUM M930 SERIES W/MTSQ FUZE
 This is a training standard item used in training and combat. FY2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$13.158 million supports production of 8,420 cartridges. E25503 is a new start in FY2022.
 TYPE CLASSIFICATION DATE: 2003

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | Item Number / Title [DODIC]: E25502 / CTG, 120mm Mortar HE, M933 Series w/PD Fuze [CA44] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|----------------|---------------|---------------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 474.178 | 17.118 | 14.482 | 29.366 | - | 29.366 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 474.178 | 17.118 | 14.482 | 29.366 | - | 29.366 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 474.178 | 17.118 | 14.482 | 29.366 | - | 29.366 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 594.18 | 34,976 | 20.782 | 145.70 | 21,189 | 3.087 | 142.76 | 21,696 | 3.097 | 161.04 | 35,434 | 5.706 | - | - | - | 161.04 | 35,434 | 5.706 |
| FIN ASSEMBLY, M31 ^(†) | 189.52 | 36,025 | 6.828 | 40.05 | 21,825 | 0.874 | 40.85 | 22,347 | 0.913 | 41.66 | 36,497 | 1.520 | - | - | - | 41.66 | 36,497 | 1.520 |
| IGNITION CARTRIDGE, M1020 ^(†) | 23.03 | 157,724 | 3.633 | 23.11 | 21,825 | 0.504 | 23.81 | 22,347 | 0.532 | 25.12 | 36,497 | 0.917 | - | - | - | 25.12 | 36,497 | 0.917 |
| PROPELLANT CHARGE, M234A1 ^(†) | 83.22 | 144,101 | 11.992 | 21.32 | 87,299 | 1.861 | 21.68 | 89,388 | 1.938 | 22.11 | 145,988 | 3.228 | - | - | - | 22.11 | 145,988 | 3.228 |
| SHELL BODY, 120MM HE ^(†) | 452.33 | 36,025 | 16.295 | 123.29 | 21,825 | 2.691 | 130.31 | 22,347 | 2.912 | 132.91 | 36,497 | 4.851 | - | - | - | 132.91 | 36,497 | 4.851 |
| FUZE POINT DETONATOR M783 ^(†) | 797.37 | 36,025 | 28.725 | 158.21 | 21,825 | 3.453 | 170.51 | 22,347 | 3.810 | 173.91 | 36,497 | 6.347 | - | - | - | 173.91 | 36,497 | 6.347 |
| COMP B TYPE I GRADE A ^(†) | 11.87 | 739,503 | 8.778 | - | - | - | - | - | - | 14.07 | 318,906 | 4.487 | - | - | - | 14.07 | 318,906 | 4.487 |
| *COMP B TYPE I GRADE A ^(†) | 12.05 | 638,667 | 7.699 | 13.52 | 190,701 | 2.578 | 13.80 | 195,264 | 2.695 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 104.731 | - | - | 15.049 | - | - | 15.897 | - | - | 27.056 | - | - | - | - | - | 27.056 |
| <i>Subtotal: Hardware Cost</i> | - | - | 104.731 | - | - | 15.049 | - | - | 15.897 | - | - | 27.056 | - | - | - | - | - | 27.056 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | Item Number / Title [DODIC]: E25502 / CTG, 120mm Mortar HE, M933 Series w/PD Fuze [CA44] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Acceptance Test | - | - | 0.729 | - | - | 0.283 | - | - | 0.120 | - | - | 0.240 | - | - | - | - | - | 0.240 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.729 | - | - | 0.283 | - | - | 0.120 | - | - | 0.240 | - | - | - | - | - | 0.240 |
| Support - Government Furnished Materials Cost | | | | | | | | | | | | | | | | | | |
| Government Furnished Materials | - | - | -7.699 | - | - | -2.578 | - | - | -2.694 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Government Furnished Materials Cost</i> | - | - | -7.699 | - | - | -2.578 | - | - | -2.694 | - | - | - | - | - | - | - | - | - |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Reliability | - | - | - | - | - | 1.840 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | - | - | - | 1.840 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 376.416 | - | - | 2.524 | - | - | 1.159 | - | - | 2.070 | - | - | - | - | - | 2.070 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 376.416 | - | - | 2.524 | - | - | 1.159 | - | - | 2.070 | - | - | - | - | - | 2.070 |
| Gross/Weapon System Cost | - | - | 474.178 | - | - | 17.118 | - | - | 14.482 | - | - | 29.366 | - | - | - | - | - | 29.366 |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|---|-------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | P-1 Line Item Number / Title: | | | | | Item Number / Title [DODIC]: | | | | |
| 2034A / 01 / 33 | | | 6780E25500 / 120MM Mortar, All Types | | | | | E25502 / CTG, 120mm Mortar HE, M933 Series w/PD Fuze [CA44] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2020 | GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA | C / FFP | PICATINNY ARSENAL, NJ | Mar 2020 | Mar 2023 | 21,189 | 145.70 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2021 | GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA | Option / FFP | PICATINNY ARSENAL, NJ | Dec 2020 | Dec 2023 | 21,696 | 142.76 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | May 2022 | May 2025 | 35,434 | 161.04 | Y | | |
| FIN ASSEMBLY, M31 | | 2020 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | C / IDIQ | PICATINNY ARSENAL, NJ | Mar 2020 | Sep 2021 | 21,825 | 40.05 | Y | | |
| FIN ASSEMBLY, M31 | | 2021 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2022 | 22,347 | 40.85 | Y | | |
| FIN ASSEMBLY, M31 | | 2022 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 36,497 | 41.66 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Aug 2021 | 21,825 | 23.11 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Dec 2020 | Jun 2022 | 22,347 | 23.81 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2022 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 36,497 | 25.12 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Jan 2020 | Jul 2021 | 87,299 | 21.32 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2021 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 89,388 | 21.68 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 145,988 | 22.11 | Y | | |
| SHELL BODY, 120MM HE | | 2020 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2019 | Jun 2021 | 21,825 | 123.29 | Y | | |
| SHELL BODY, 120MM HE | | 2021 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | May 2021 | Nov 2022 | 22,347 | 130.31 | Y | | |
| SHELL BODY, 120MM HE | | 2022 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 36,497 | 132.91 | Y | | |
| FUZE POINT DETONATOR M783 | | 2020 | L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH | C / FFP | PICATINNY ARSENAL, NJ | May 2020 | Nov 2022 | 21,825 | 158.21 | Y | | |
| FUZE POINT DETONATOR M783 | | 2021 | L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH | Option / FFP | PICATINNY ARSENAL, NJ | Feb 2021 | Aug 2023 | 22,347 | 170.51 | Y | | |
| FUZE POINT DETONATOR M783 | | 2022 | TO BE SELECTED / TBS01 | Option / FFP | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2024 | 36,497 | 173.91 | Y | | |
| COMP B TYPE I GRADE A | | 2021 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Feb 2022 | 0 | 0.00 | Y | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | Item Number / Title [DODIC]: E25502 / CTG, 120mm Mortar HE, M933 Series w/PD Fuze [CA44] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|------------------------|-------------|------|--|--------------------------------------|-------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| COMP B TYPE I GRADE A | | 2022 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Feb 2023 | 318,906 | 14.07 | Y | | |
| *COMP B TYPE I GRADE A | | 2020 | GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE, | GFM | PICATINNY ARSENAL, NJ | Dec 2019 | Sep 2020 | 190,701 | 13.52 | N | | |
| *COMP B TYPE I GRADE A | | 2021 | GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE, | GFM | PICATINNY ARSENAL, NJ | Dec 2020 | Sep 2021 | 195,264 | 13.80 | N | | |

(f) indicates the presence of a P-21

Remarks:

Propellant Charges: IDIQ awarded (FY 2018) to multiple contractors. Requirements will be competed among the following contractors: American Ordnance, Middletown, IA; and General Dynamics, Marion, IL. Ignition Cartridges: IDIQ awarded (FY2018) to Nammo Pocal INC., Scranton, PA. Shell Bodies: IDIQ awarded (FY 2018) to General Dynamice OTS, Wilkes Barre, PA.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | | | Item Number / Title [DODIC]: E25502 / CTG, 120mm Mortar HE, M933 Series w/PD Fuze [CA44] | | | | | | | | | | | |

| Cost Elements (Units in Thousands) | | | | | | Fiscal Year 2020 | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | B A L A N C E | | | |
|---------------------------------------|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|--|--------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 34976 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | ARMY | 21.189 | .000 | 21.189 | | | | | | | | | | | | | | | | | | | | | | | | | | | 21.189 |
| | 2 | 2021 | ARMY | 21.696 | .000 | 21.696 | | | | | | | | | | | | | | | | | | | | | | | | | | | 21.696 |
| | 1 | 2022 | ARMY | 35.434 | .000 | 35.434 | | | | | | | | | | | | | | | | | | | | | | | | | | | 35.434 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | | | Item Number / Title [DODIC]: E25502 / CTG, 120mm Mortar HE, M933 Series w/PD Fuze [CA44] | | | | | | | | | | | | |

| Cost Elements (Units in Thousands) | | | | | | Fiscal Year 2022 | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | BALANCE | | | | | | | | |
|---------------------------------------|---------|------|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|-------|---|---|---|---|---|--------|--------|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 34976 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | ARMY | 21.189 | .000 | 21.189 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12.000 | 9.189 | | | | | | | .000 | |
| | 2 | 2021 | ARMY | 21.696 | .000 | 21.696 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 21.696 |
| | 1 | 2022 | ARMY | 35.434 | .000 | 35.434 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 35.434 | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | | | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | | | | | | | Item Number / Title [DODIC]: E25502 / CTG, 120mm Mortar HE, M933 Series w/PD Fuze [CA44] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2024 | | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | | B A L A N C E | |
|--|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---------------------------------|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|------|------|--------|--------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 34976 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | ARMY | 21.189 | 21.189 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 2 | 2021 | ARMY | 21.696 | .000 | 21.696 | - | - | 12.000 | 9.696 | | | | | | | | | | | | | | | | | | | .000 | |
| | 1 | 2022 | ARMY | 35.434 | .000 | 35.434 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types |
| Item Number / Title [DODIC]: E25502 / CTG, 120mm Mortar HE, M933 Series w/PD Fuze [CA44] | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | TO BE SELECTED - TBS01 | 6,000 | 12,000 | 30,000 | 8 | 8 | 36 | 44 | 8 | 8 | 36 | 44 |
| 2 | GEN DYNAMICS ORD & TAC SYS - - LE GARDEUR, CANADA | 6,000 | 12,000 | 30,000 | 8 | 8 | 36 | 44 | 8 | 8 | 36 | 44 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | Item Number / Title [DODIC]: E25503 / CTG, 120mm Mortar VL ILLM, M930 Series w/MTSQ Fuze | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 444.434 | - | - | 13.158 | - | 13.158 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 444.434 | - | - | 13.158 | - | 13.158 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 444.434 | - | - | 13.158 | - | 13.158 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | - | - | - | - | - | - | - | - | - | 409.92 | 8,420 | 3.452 | - | - | - | 409.92 | 8,420 | 3.452 |
| IGNITION CARTRIDGE, M1020 ^(†) | - | - | - | - | - | - | - | - | - | 25.12 | 8,672 | 0.218 | - | - | - | 25.12 | 8,672 | 0.218 |
| PROPELLANT CHARGE, M234A1 ^(†) | - | - | - | - | - | - | - | - | - | 22.11 | 34,690 | 0.767 | - | - | - | 22.11 | 34,690 | 0.767 |
| VL ILLUM CANNISTER, 120MM ^(†) | - | - | - | - | - | - | - | - | - | 303.35 | 8,672 | 2.631 | - | - | - | 303.35 | 8,672 | 2.631 |
| FIN ASSEMBLY, M31 ^(†) | - | - | - | - | - | - | - | - | - | 41.66 | 8,672 | 0.361 | - | - | - | 41.66 | 8,672 | 0.361 |
| METAL CONTAINER PA 154, 120MM ^(†) | - | - | - | - | - | - | - | - | - | 74.25 | 4,378 | 0.325 | - | - | - | 74.25 | 4,378 | 0.325 |
| PARACHUTE, 120MM ^(†) | - | - | - | - | - | - | - | - | - | 54.60 | 8,672 | 0.473 | - | - | - | 54.60 | 8,672 | 0.473 |
| FIBER CONTAINER PA 167, 120MM ^(†) | - | - | - | - | - | - | - | - | - | 13.89 | 8,672 | 0.120 | - | - | - | 13.89 | 8,672 | 0.120 |
| 120MM ILLUM BODY ^(†) | - | - | - | - | - | - | - | - | - | 161.36 | 8,672 | 1.399 | - | - | - | 161.36 | 8,672 | 1.399 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | Item Number / Title [DODIC]: E25503 / CTG, 120mm Mortar VL ILLM, M930 Series w/MTSQ Fuze |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| FUZE MTSQ, M776 ^(t) | - | - | - | - | - | - | - | - | - | 260.17 | 8,672 | 2.256 | - | - | - | 260.17 | 8,672 | 2.256 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 12.003 | - | - | - | - | - | 12.003 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 12.003 | - | - | - | - | - | 12.003 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 444.434 | - | - | - | - | - | - | - | - | 0.090 | - | - | - | - | - | 0.090 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 444.434 | - | - | - | - | - | - | - | - | 0.090 | - | - | - | - | - | 0.090 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 1.065 | - | - | - | - | - | 1.065 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 1.065 | - | - | - | - | - | 1.065 |
| Gross/Weapon System Cost | - | - | 444.434 | - | - | - | - | - | - | - | - | 13.158 | - | - | - | - | - | 13.158 |

^(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | Item Number / Title [DODIC]: E25503 / CTG, 120mm Mortar VL ILLM, M930 Series w/MTSQ Fuze | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|---|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2022 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Jan 2024 | 8,420 | 409.92 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2022 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 8,672 | 25.12 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 34,690 | 22.11 | Y | | |
| VL ILLUM CANNISTER, 120MM | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Sep 2023 | 8,672 | 303.35 | Y | | |
| FIN ASSEMBLY, M31 | | 2022 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 8,672 | 41.66 | Y | | |
| METAL CONTAINER PA 154, 120MM | | 2022 | BWAY / ATLANTA, GA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 4,378 | 74.25 | Y | | |
| PARACHUTE, 120MM | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 8,672 | 54.60 | Y | | |
| FIBER CONTAINER PA 167, 120MM | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 8,672 | 13.89 | Y | | |
| 120MM ILLUM BODY | | 2022 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 8,672 | 161.36 | Y | | |
| FUZE MTSQ, M776 | | 2022 | JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY | SS / FFP | ROCK ISLAND ARSENAL, IL | Feb 2022 | Oct 2023 | 8,672 | 260.17 | Y | | |

Remarks:
Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | | | Item Number / Title [DODIC]: E25507 / CTG, 120mm Mortar FRTR, M931 Series w/Pract Fuze [CA09] | | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | MDAP/MAIS Code: | | | | | | | | | |
| Resource Summary | | | | Prior Years | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | FY 2022 Total | |
| Procurement Quantity (Units in Each) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Cost (\$ in Millions) | | | | 634.668 | | 35.530 | | | 51.124 | | | 28.440 | | | - | | 28.440 | |
| Less PY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Net Procurement (P-1) (\$ in Millions) | | | | 634.668 | | 35.530 | | | 51.124 | | | 28.440 | | | - | | 28.440 | |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Total Obligation Authority (\$ in Millions) | | | | 634.668 | | 35.530 | | | 51.124 | | | 28.440 | | | - | | 28.440 | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | | - | | | - | | | - | | | - | | - | |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. | | | | | | | | | | | | | | | | | | |
| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 81.38 | 438,277 | 35.665 | 89.41 | 83,107 | 7.431 | 91.20 | 119,509 | 10.899 | 93.06 | 63,642 | 5.923 | - | - | - | 93.06 | 63,642 | 5.923 |
| FIN ASSEMBLY, M31 ^(†) | 43.27 | 451,425 | 19.531 | 40.05 | 85,600 | 3.428 | 40.85 | 123,094 | 5.028 | 41.66 | 65,551 | 2.731 | - | - | - | 41.66 | 65,551 | 2.731 |
| IGNITION CARTRIDGE, M1020 ^(†) | 22.95 | 451,425 | 10.359 | 23.11 | 85,600 | 1.978 | 24.63 | 123,094 | 3.032 | 25.12 | 65,551 | 1.647 | - | - | - | 25.12 | 65,551 | 1.647 |
| PROPELLANT CHARGE, M234A1 ^(†) | 58.18 | 614,045 | 35.725 | 21.32 | 342,401 | 7.300 | 21.68 | 492,377 | 10.675 | 22.11 | 262,205 | 5.797 | - | - | - | 22.11 | 262,205 | 5.797 |
| SHELL BODY, 120MM FRPC ^(†) | 314.71 | 153,511 | 48.311 | 117.56 | 85,600 | 10.063 | 122.31 | 123,094 | 15.056 | 124.75 | 65,551 | 8.177 | - | - | - | 124.75 | 65,551 | 8.177 |
| FUZE PRACTICE, M781 ^(†) | 60.63 | 153,511 | 9.307 | 20.50 | 85,600 | 1.755 | 21.14 | 123,094 | 2.602 | 21.56 | 65,551 | 1.413 | - | - | - | 21.56 | 65,551 | 1.413 |
| <i>Subtotal: Recurring Cost</i> | - | - | 158.897 | - | - | 31.955 | - | - | 47.292 | - | - | 25.688 | - | - | - | - | - | 25.688 |
| <i>Subtotal: Hardware Cost</i> | - | - | 158.897 | - | - | 31.955 | - | - | 47.292 | - | - | 25.688 | - | - | - | - | - | 25.688 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 1.722 | - | - | 0.610 | - | - | 0.820 | - | - | 0.490 | - | - | - | - | - | 0.490 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 1.722 | - | - | 0.610 | - | - | 0.820 | - | - | 0.490 | - | - | - | - | - | 0.490 |
| Support - Engineering Change Proposals Cost | | | | | | | | | | | | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | | | Item Number / Title [DODIC]: E25507 / CTG, 120mm Mortar FRTR, M931 Series w/Pract Fuze [CA09] | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Engineering Change Proposals | - | - | - | - | - | 0.450 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Engineering Change Proposals Cost</i> | - | - | - | - | - | 0.450 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 474.048 | - | - | 2.515 | - | - | 3.012 | - | - | 2.261 | - | - | - | - | - | 2.261 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 474.048 | - | - | 2.515 | - | - | 3.012 | - | - | 2.261 | - | - | - | - | - | 2.261 |
| Gross/Weapon System Cost | - | - | 634.668 | - | - | 35.530 | - | - | 51.124 | - | - | 28.440 | - | - | - | - | - | 28.440 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | Item Number / Title [DODIC]: E25507 / CTG, 120mm Mortar FRTR, M931 Series w/Pract Fuze [CA09] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2020 | GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA | Option / FFP | PICATINNY ARSENAL, NJ | Mar 2020 | Mar 2022 | 83,107 | 89.41 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2021 | GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA | Option / FFP | PICATINNY ARSENAL, NJ | Dec 2020 | Dec 2022 | 119,509 | 91.20 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2022 | GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA | Option / FFP | PICATINNY ARSENAL, NJ | May 2022 | May 2024 | 63,642 | 93.06 | Y | | |
| FIN ASSEMBLY, M31 | | 2020 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | C / IDIQ | PICATINNY ARSENAL, NJ | Mar 2020 | Sep 2021 | 85,600 | 40.05 | Y | | |
| FIN ASSEMBLY, M31 | | 2021 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2022 | 123,094 | 40.85 | Y | | |
| FIN ASSEMBLY, M31 | | 2022 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 65,551 | 41.66 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Aug 2021 | 85,600 | 23.11 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Dec 2020 | Jun 2022 | 123,094 | 24.63 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2022 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 65,551 | 25.12 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Jan 2020 | Jul 2021 | 342,401 | 21.32 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2021 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 492,377 | 21.68 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 262,205 | 22.11 | Y | | |
| SHELL BODY, 120MM FRPC | | 2020 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2019 | Jun 2021 | 85,600 | 117.56 | Y | | |
| SHELL BODY, 120MM FRPC | | 2021 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | May 2021 | Nov 2022 | 123,094 | 122.31 | Y | | |
| SHELL BODY, 120MM FRPC | | 2022 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 65,551 | 124.75 | Y | | |
| FUZE PRACTICE, M781 | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2019 | Jun 2021 | 85,600 | 20.50 | Y | | |
| FUZE PRACTICE, M781 | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2022 | 123,094 | 21.14 | Y | | |
| FUZE PRACTICE, M781 | | 2022 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 65,551 | 21.56 | Y | | |

(†) indicates the presence of a P-21

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | Item Number / Title [DODIC]: E25507 / CTG, 120mm Mortar FRTR, M931 Series w/Pract Fuze [CA09] |

Remarks:
 Ignition Cartridges: IDIQ awarded (FY 2018) to Nammo Pocal Industries, S cranton, PA. Propellant Charges: IDIQ awarded (FY 2018) to multiple contractors. Requ irements will be competed among the following contractors: American Ordn ance, Middletown, IA; and General Dynamics, Marion, IL. Fuze: IDIQ awarded (FY 2018) to Nammo Pocal Industries, Scranton, PA. Shell Bodies, IDIQ awarded (FY 2018) to General Dynamics OTS, Wilkes Barre, PA.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | | | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | | | | | | | Item Number / Title [DODIC]: E25507 / CTG, 120mm Mortar FRTR, M931 Series w/Pract Fuze [CA09] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | B A L A N C E | |
|--|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |

LOAD, ASSEMBLE, PACK (LAP)

| Prior Years Deliveries: 438277 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|------|------|---------|------|---------|---|---|---|---|---|-------|-------|-------|-------|-------|--------|--------|--------|---|--------|--------|--------|--------|--------|---|---|---|---|--------|------|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 83.107 | .000 | 83.107 | - | - | - | - | - | 8.448 | 4.000 | 1.552 | 1.000 | 9.000 | 11.544 | 24.000 | 23.563 | | | | | | | | | | | | .000 |
| 1 | 2021 | ARMY | 119.509 | .000 | 119.509 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 24.000 | 24.000 | 24.000 | 24.000 | 23.509 | | | | | | .000 |
| 1 | 2022 | ARMY | 63.642 | .000 | 63.642 | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 63.642 | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|---|---------------------------------|----------------|--|-------------------------------|-----------------|-------------------|--|--------------------|-----------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | Item Number / Title [DODIC]: E25507 / CTG, 120mm Mortar FRTR, M931 Series w/Pract Fuze [CA09] | | | | |
| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | GEN DYNAMICS ORD & TAC SYS - - LE GARDEUR, CANADA | 10,000 | 12,000 | 24,000 | 8 | 8 | 24 | 32 | 8 | 8 | 24 | 32 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | Date: May 2021 | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | | | Item Number / Title [DODIC]: E91300 / CTG, 120mm Mortar WP Smoke, M929 Series w/MOFM [CA03] | | | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | MDAP/MAIS Code: | | | | | | | |
| Resource Summary | | | | Prior Years | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | FY 2022 Total | |
| Procurement Quantity (Units in Each) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Cost (\$ in Millions) | | | | 222.947 | | 51.962 | | | 26.963 | | | 18.792 | | | - | | 18.792 | |
| Less PY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Net Procurement (P-1) (\$ in Millions) | | | | 222.947 | | 51.962 | | | 26.963 | | | 18.792 | | | - | | 18.792 | |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Total Obligation Authority (\$ in Millions) | | | | 222.947 | | 51.962 | | | 26.963 | | | 18.792 | | | - | | 18.792 | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | | - | | | - | | | - | | | - | | - | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 343.14 | 21,444 | 7.358 | 415.50 | 36,808 | 15.294 | 347.41 | 21,075 | 7.322 | 385.59 | 13,843 | 5.338 | - | - | - | 385.59 | 13,843 | 5.338 |
| FIN ASSEMBLY, M31 ^(†) | 43.30 | 22,087 | 0.956 | 40.05 | 37,912 | 1.518 | 40.85 | 21,707 | 0.887 | 41.66 | 14,258 | 0.594 | - | - | - | 41.66 | 14,258 | 0.594 |
| IGNITION CARTRIDGE, M1020 ^(†) | 23.21 | 22,087 | 0.513 | 23.11 | 37,912 | 0.876 | 24.63 | 21,707 | 0.535 | 25.12 | 14,258 | 0.358 | - | - | - | 25.12 | 14,258 | 0.358 |
| PROPELLANT CHARGE, M234A1 ^(†) | 20.43 | 88,349 | 1.805 | 21.32 | 151,649 | 3.233 | 21.68 | 86,829 | 1.882 | 22.11 | 57,033 | 1.261 | - | - | - | 22.11 | 57,033 | 1.261 |
| SHELL BODY, 120MM SMK ^(†) | 234.01 | 22,087 | 5.169 | 225.27 | 37,912 | 8.540 | 229.78 | 21,707 | 4.988 | 234.37 | 14,258 | 3.342 | - | - | - | 234.37 | 14,258 | 3.342 |
| BURSTER HOUSING, 120MM SMOKE ^(†) | 57.42 | 22,087 | 1.268 | 105.00 | 37,912 | 3.981 | 76.29 | 21,707 | 1.656 | 77.81 | 14,258 | 1.109 | - | - | - | 77.81 | 14,258 | 1.109 |
| FUZE MOFM, M734A1 ^(†) | 269.74 | 22,087 | 5.958 | 225.00 | 37,912 | 8.530 | 249.17 | 21,707 | 5.409 | 254.14 | 14,258 | 3.624 | - | - | - | 254.14 | 14,258 | 3.624 |
| BURSTER ASSEMBLY, M86 ^(†) | 49.59 | 22,087 | 1.095 | 50.05 | 37,912 | 1.897 | 66.44 | 21,707 | 1.442 | 67.77 | 14,258 | 0.966 | - | - | - | 67.77 | 14,258 | 0.966 |
| FIBER CONTAINER PA 167, 120MM ^(†) | 12.34 | 22,087 | 0.273 | 12.87 | 37,912 | 0.488 | 13.63 | 21,707 | 0.296 | 13.89 | 14,258 | 0.198 | - | - | - | 13.89 | 14,258 | 0.198 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | Item Number / Title [DODIC]: E91300 / CTG, 120mm Mortar WP Smoke, M929 Series w/MOFM [CA03] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| METAL CONTAINER PA 154, 120MM ^(t) | 68.60 | 11,151 | 0.765 | 59.85 | 19,140 | 1.146 | 72.80 | 10,959 | 0.798 | 74.25 | 7,198 | 0.534 | - | - | - | 74.25 | 7,198 | 0.534 |
| <i>Subtotal: Recurring Cost</i> | - | - | 25.160 | - | - | 45.504 | - | - | 25.214 | - | - | 17.324 | - | - | - | - | - | 17.324 |
| <i>Subtotal: Hardware Cost</i> | - | - | 25.160 | - | - | 45.504 | - | - | 25.214 | - | - | 17.324 | - | - | - | - | - | 17.324 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.200 | - | - | 0.320 | - | - | 0.140 | - | - | 0.140 | - | - | - | - | - | 0.140 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.200 | - | - | 0.320 | - | - | 0.140 | - | - | 0.140 | - | - | - | - | - | 0.140 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 197.587 | - | - | 6.138 | - | - | 1.609 | - | - | 1.328 | - | - | - | - | - | 1.328 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 197.587 | - | - | 6.138 | - | - | 1.609 | - | - | 1.328 | - | - | - | - | - | 1.328 |
| Gross/Weapon System Cost | - | - | 222.947 | - | - | 51.962 | - | - | 26.963 | - | - | 18.792 | - | - | - | - | - | 18.792 |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|---|--------------------------------------|-------------------------|------------|------------------------|--|-------------------|------------------|-------------------------|----------------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | P-1 Line Item Number / Title: | | | | | Item Number / Title [DODIC]: | | | | |
| 2034A / 01 / 33 | | | 6780E25500 / 120MM Mortar, All Types | | | | | E91300 / CTG, 120mm Mortar WP Smoke, M929 Series w/MOFM [CA03] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2020 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Mar 2020 | Mar 2023 | 36,808 | 415.50 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2021 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Jan 2021 | Jan 2024 | 21,075 | 347.41 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2022 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Jan 2025 | 13,843 | 385.59 | Y | | |
| FIN ASSEMBLY, M31 | | 2020 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | C / IDIQ | PICATINNY ARSENAL, NJ | Mar 2020 | Jan 2021 | 37,912 | 40.05 | Y | | |
| FIN ASSEMBLY, M31 | | 2021 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Oct 2021 | 21,707 | 40.85 | Y | | |
| FIN ASSEMBLY, M31 | | 2022 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 14,258 | 41.66 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Dec 2020 | 37,912 | 23.11 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Dec 2020 | Jun 2022 | 21,707 | 24.63 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2022 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 14,258 | 25.12 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Jan 2020 | Dec 2020 | 151,649 | 21.32 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2021 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 86,829 | 21.68 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 57,033 | 22.11 | Y | | |
| SHELL BODY, 120MM SMK | | 2020 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2019 | May 2020 | 37,912 | 225.27 | Y | | |
| SHELL BODY, 120MM SMK | | 2021 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2021 | Aug 2022 | 21,707 | 229.78 | Y | | |
| SHELL BODY, 120MM SMK | | 2022 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 14,258 | 234.37 | Y | | |
| BURSTER HOUSING, 120MM SMOKE | | 2020 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2020 | Sep 2021 | 37,912 | 105.00 | Y | | |
| BURSTER HOUSING, 120MM SMOKE | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2021 | Aug 2022 | 21,707 | 76.29 | Y | | |
| BURSTER HOUSING, 120MM SMOKE | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 14,258 | 77.81 | Y | | |
| FUZE MOFM, M734A1 | | 2020 | L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH | C / FFP | PICATINNY ARSENAL, NJ | Apr 2020 | Oct 2022 | 37,912 | 225.00 | Y | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | Item Number / Title [DODIC]: E91300 / CTG, 120mm Mortar WP Smoke, M929 Series w/MOFM [CA03] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|---|--------------------------------------|-------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| FUZE MOFM, M734A1 | | 2021 | L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH | Option / FFP | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2023 | 21,707 | 249.17 | Y | | |
| FUZE MOFM, M734A1 | | 2022 | TO BE SELECTED / TBS01 | Option / FFP | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2024 | 14,258 | 254.14 | Y | | |
| BURSTER ASSEMBLY, M86 | | 2020 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2020 | Sep 2021 | 37,912 | 50.05 | Y | | |
| BURSTER ASSEMBLY, M86 | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2021 | Aug 2022 | 21,707 | 66.44 | Y | | |
| BURSTER ASSEMBLY, M86 | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 14,258 | 67.77 | Y | | |
| FIBER CONTAINER PA 167, 120MM | | 2020 | UNITED AMMUNITION CONTAINER / MILAN, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Nov 2019 | May 2020 | 37,912 | 12.87 | Y | | |
| FIBER CONTAINER PA 167, 120MM | | 2021 | UNITED AMMUNITION CONTAINER / MILAN, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Aug 2022 | 21,707 | 13.63 | Y | | |
| FIBER CONTAINER PA 167, 120MM | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 14,258 | 13.89 | Y | | |
| METAL CONTAINER PA 154, 120MM | | 2020 | BWAY CORPORATION / ATLANTA, GA | Option / IDIQ | PICATINNY ARSENAL, NJ | Nov 2019 | May 2020 | 19,140 | 59.85 | Y | | |
| METAL CONTAINER PA 154, 120MM | | 2021 | BWAY CORPORATION / ATLANTA, GA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 10,959 | 72.80 | Y | | |
| METAL CONTAINER PA 154, 120MM | | 2022 | BWAY CORPORATION / ATLANTA, GA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 7,198 | 74.25 | Y | | |

(t) indicates the presence of a P-21

Remarks:

Propellant Charges: IDIQ awarded (FY 2018) to multiple contractors. Requirements will be competed among the following contractors: American Ordnance, Middletown, IA; and General Dynamics, Marion, IL. Ignition Cartridges: IDIQ awarded (FY 2018) to Nammo Pocal Industries, Scranton, PA.

Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | | | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | | | | | | | Item Number / Title [DODIC]: E91300 / CTG, 120mm Mortar WP Smoke, M929 Series w/MOFM [CA03] | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | B A L A N C E | | | | | | | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|-------|-------|---|---|---|---|--------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 21444 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2020 | ARMY | 36.808 | .000 | 36.808 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9.000 | 9.000 | 9.000 | 9.808 | | | | | .000 |
| 1 | | 2021 | ARMY | 21.075 | .000 | 21.075 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 21.075 |
| 1 | | 2022 | ARMY | 13.843 | .000 | 13.843 | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13.843 |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | | | | | | | | | Item Number / Title [DODIC]: E91300 / CTG, 120mm Mortar WP Smoke, M929 Series w/MOFM [CA03] | | | | | | | | | | | | | | |

| Cost Elements (Units in Thousands) | | | | | Fiscal Year 2024 | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | B A L A N C E | | |
|---------------------------------------|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | | A U G | S E P |

LOAD, ASSEMBLE, PACK (LAP)

Prior Years Deliveries: 21444

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|------|------|--------|--------|--------|---|---|---|--------|--------|---|---|---|---|---|---|---|---|---|-------|-------|--|--|--|--|--|--|--|--|------|
| 1 | 2020 | ARMY | 36.808 | 36.808 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2021 | ARMY | 21.075 | .000 | 21.075 | - | - | - | 11.000 | 10.075 | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2022 | ARMY | 13.843 | .000 | 13.843 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7.000 | 6.843 | | | | | | | | | .000 |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types |
| Item Number / Title [DODIC]: E91300 / CTG, 120mm Mortar WP Smoke, M929 Series w/MOFM [CA03] | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|-------------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | PINE BLUFF ARSENAL - PINE BLUFF, AR | 6,000 | 9,000 | 12,000 | 8 | 6 | 36 | 42 | 8 | 6 | 36 | 42 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | Item Number / Title [DODIC]: E91400 / CTG, 120mm Mortar HE, M934 Series w/MOFM [CA04] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|---------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 148.206 | 18.500 | 12.341 | 14.388 | - | 14.388 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 148.206 | 18.500 | 12.341 | 14.388 | - | 14.388 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 148.206 | 18.500 | 12.341 | 14.388 | - | 14.388 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 123.97 | 43,025 | 5.334 | 145.70 | 21,314 | 3.105 | 142.76 | 16,261 | 2.321 | 161.04 | 15,703 | 2.529 | - | - | - | 161.04 | 15,703 | 2.529 |
| SHELL BODY, 120MM HE ^(†) | 110.25 | 44,563 | 4.913 | 123.29 | 21,953 | 2.707 | 130.31 | 16,749 | 2.183 | 132.92 | 16,174 | 2.150 | - | - | - | 132.92 | 16,174 | 2.150 |
| IGNITION CARTRIDGE, M1020 ^(†) | 22.90 | 44,563 | 1.020 | 23.11 | 21,953 | 0.507 | 23.81 | 16,749 | 0.399 | 25.12 | 16,174 | 0.406 | - | - | - | 25.12 | 16,174 | 0.406 |
| COMP B TYPE I GRADE A ^(†) | 14.95 | 360,003 | 5.382 | - | - | - | - | - | - | 14.07 | 141,327 | 1.988 | - | - | - | 14.07 | 141,327 | 1.988 |
| *COMP B TYPE I GRADE A ^(†) | - | - | - | 13.52 | 191,826 | 2.593 | 13.80 | 146,349 | 2.020 | - | - | - | - | - | - | - | - | - |
| PROPELLANT CHARGE, M234A1 ^(†) | 14.80 | 178,256 | 2.638 | 23.46 | 87,814 | 2.060 | 21.68 | 66,995 | 1.452 | 22.11 | 64,696 | 1.430 | - | - | - | 22.11 | 64,696 | 1.430 |
| FIN ASSEMBLY, M31 ^(†) | 35.40 | 44,563 | 1.578 | 40.05 | 21,953 | 0.879 | 40.85 | 16,749 | 0.684 | 41.66 | 16,174 | 0.674 | - | - | - | 41.66 | 16,174 | 0.674 |
| FUZE MOFM, M734A1 ^(†) | 222.08 | 44,563 | 9.897 | 225.00 | 21,953 | 4.939 | 249.17 | 16,749 | 4.173 | 254.14 | 16,174 | 4.110 | - | - | - | 254.14 | 16,174 | 4.110 |
| <i>Subtotal: Recurring Cost</i> | - | - | 30.762 | - | - | 16.792 | - | - | 13.232 | - | - | 13.288 | - | - | - | - | - | 13.288 |
| <i>Subtotal: Hardware Cost</i> | - | - | 30.762 | - | - | 16.792 | - | - | 13.232 | - | - | 13.288 | - | - | - | - | - | 13.288 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |
| Item Number / Title [DODIC]: E91400 / CTG, 120mm Mortar HE, M934 Series w/MOFM [CA04] | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Acceptance Test | - | - | - | - | - | 0.218 | - | - | 0.140 | - | - | 0.180 | - | - | - | - | - | 0.180 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.218 | - | - | 0.140 | - | - | 0.180 | - | - | - | - | - | 0.180 |
| Support - Government Furnished Materials Cost | | | | | | | | | | | | | | | | | | |
| Government Furnished Materials | - | - | - | - | - | -2.593 | - | - | -2.019 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Government Furnished Materials Cost</i> | - | - | - | - | - | -2.593 | - | - | -2.019 | - | - | - | - | - | - | - | - | - |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Reliability | - | - | - | - | - | 3.160 | - | - | - | - | - | - | - | - | - | - | - | - |
| Safety | - | - | - | - | - | 0.057 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | - | - | - | 3.217 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 117.444 | - | - | 0.866 | - | - | 0.988 | - | - | 0.920 | - | - | - | - | - | 0.920 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 117.444 | - | - | 0.866 | - | - | 0.988 | - | - | 0.920 | - | - | - | - | - | 0.920 |
| Gross/Weapon System Cost | - | - | 148.206 | - | - | 18.500 | - | - | 12.341 | - | - | 14.388 | - | - | - | - | - | 14.388 |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | | | Date: May 2021 | | |
|--|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|--|-------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | P-1 Line Item Number / Title: | | | | | Item Number / Title [DODIC]: | | | | |
| 2034A / 01 / 33 | | | 6780E25500 / 120MM Mortar, All Types | | | | | E91400 / CTG, 120mm Mortar HE, M934 Series w/MOFM [CA04] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| LOAD, ASSEMBLE, PACK (LAP) | | 2020 | GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2020 | Mar 2023 | 21,314 | 145.70 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2021 | GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Dec 2023 | 16,261 | 142.76 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | PICATINNY ARSENAL, NJ | May 2022 | May 2025 | 15,703 | 161.04 | Y | | |
| SHELL BODY, 120MM HE | | 2020 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2020 | Sep 2021 | 21,953 | 123.29 | Y | | |
| SHELL BODY, 120MM HE | | 2021 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | May 2021 | Nov 2022 | 16,749 | 130.31 | Y | | |
| SHELL BODY, 120MM HE | | 2022 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 16,174 | 132.92 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2020 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2020 | Aug 2021 | 21,953 | 23.11 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Dec 2020 | Jun 2022 | 16,749 | 23.81 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2022 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 16,174 | 25.12 | Y | | |
| COMP B TYPE I GRADE A | | 2021 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Feb 2022 | 0 | 0.00 | Y | | |
| COMP B TYPE I GRADE A | | 2022 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Feb 2023 | 141,327 | 14.07 | Y | | |
| *COMP B TYPE I GRADE A | | 2020 | GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE, | GFM | PICATINNY ARSENAL, NJ | Dec 2019 | Sep 2020 | 191,826 | 13.52 | N | | |
| *COMP B TYPE I GRADE A | | 2021 | GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE, | GFM | PICATINNY ARSENAL, NJ | Dec 2020 | Sep 2021 | 146,349 | 13.80 | N | | |
| PROPELLANT CHARGE, M234A1 | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2020 | Sep 2021 | 87,814 | 23.46 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2021 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 66,995 | 21.68 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 64,696 | 22.11 | Y | | |
| FIN ASSEMBLY, M31 | | 2020 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | C / FFP | PICATINNY ARSENAL, NJ | Mar 2020 | Sep 2021 | 21,953 | 40.05 | Y | | |
| FIN ASSEMBLY, M31 | | 2021 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | Option / FFP | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2022 | 16,749 | 40.85 | Y | | |
| FIN ASSEMBLY, M31 | | 2022 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | Option / FFP | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 16,174 | 41.66 | Y | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | Item Number / Title [DODIC]: E91400 / CTG, 120mm Mortar HE, M934 Series w/MOFM [CA04] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------|-------------|------|---|--------------------------------------|-----------------------|------------|------------------------|----------------------|--------------------------|------------------|-------------------------|----------------|
| FUZE MOFM, M734A1 | | 2020 | L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH | Option / FFP | PICATINNY ARSENAL, NJ | Apr 2020 | Oct 2022 | 21,953 | 225.00 | Y | | |
| FUZE MOFM, M734A1 | | 2021 | L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH | Option / FFP | PICATINNY ARSENAL, NJ | Dec 2020 | Jun 2023 | 16,749 | 249.17 | Y | | |
| FUZE MOFM, M734A1 | | 2022 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 16,174 | 254.14 | Y | | |

Remarks:

Propellant Charges: IDIQ awarded (FY 2018) to multiple contractors. Requirements will be competed among the following contractors: American Ordnance, Middletown, IA; and General Dynamics, Marion, IL. Ignition Cartridges: IDIQ awarded (FY 2018) to Nammo Pocal Industries, Scranton, PA. Shell Bodies: IDIQ awarded (FY 2018) to General Dynamics OTS, Wilkes Barre, PA.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | Item Number / Title [DODIC]: E91500 / CTG, 120mm Mortar IR ILLUM, M983 Series w/MTSQ | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 205.531 | - | 12.852 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 205.531 | - | 12.852 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 205.531 | - | 12.852 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | - | - | - | - | - | - | 434.94 | 7,750 | 3.371 | - | - | - | - | - | - | - | - | - |
| FUZE MTSQ, M776 ^(†) | - | - | - | - | - | - | 255.07 | 7,983 | 2.036 | - | - | - | - | - | - | - | - | - |
| 120MM ILLUM BODY ^(†) | - | - | - | - | - | - | 157.36 | 7,983 | 1.256 | - | - | - | - | - | - | - | - | - |
| PROPELLANT CHARGE, M234A1 ^(†) | - | - | - | - | - | - | 21.68 | 31,930 | 0.692 | - | - | - | - | - | - | - | - | - |
| METAL CONTAINER PA 154, 120MM ^(†) | - | - | - | - | - | - | 72.80 | 4,030 | 0.293 | - | - | - | - | - | - | - | - | - |
| IR ILLUM CANNISTER, 120MM ^(†) | - | - | - | - | - | - | 296.70 | 7,983 | 2.369 | - | - | - | - | - | - | - | - | - |
| IGNITION CARTRIDGE, M1020 ^(†) | - | - | - | - | - | - | 24.63 | 7,983 | 0.197 | - | - | - | - | - | - | - | - | - |
| PARACHUTE, 120MM ^(†) | - | - | - | - | - | - | 53.54 | 7,983 | 0.427 | - | - | - | - | - | - | - | - | - |
| FIBER CONTAINER PA 167, 120MM ^(†) | - | - | - | - | - | - | 13.63 | 7,983 | 0.109 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | | | Item Number / Title [DODIC]: E91500 / CTG, 120mm Mortar IR ILLUM, M983 Series w/MTSQ | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| FIN ASSEMBLY, M31 ^(t) | - | - | - | - | - | - | 40.85 | 7,983 | 0.326 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | 11.076 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | 11.076 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | - | - | - | 0.090 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | 0.090 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 205.531 | - | - | - | - | - | 1.686 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 205.531 | - | - | - | - | - | 1.686 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 205.531 | - | - | - | - | - | 12.852 | - | - | - | - | - | - | - | - | - |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33 | | | P-1 Line Item Number / Title: 6780E25500 / 120MM Mortar, All Types | | | | Item Number / Title [DODIC]: E91500 / CTG, 120mm Mortar IR ILLUM, M983 Series w/MTSQ | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------------------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2021 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Jan 2021 | Jul 2023 | 7,750 | 434.94 | Y | | |
| FUZE MTSQ, M776 | | 2021 | JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY | SS / FFP | ROCK ISLAND ARSENAL, IL | Feb 2021 | Oct 2022 | 7,983 | 255.07 | Y | | |
| 120MM ILLUM BODY | | 2021 | GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA | C / IDIQ | PICATINNY ARSENAL, NJ | May 2021 | Nov 2022 | 7,983 | 157.36 | Y | | |
| PROPELLANT CHARGE, M234A1 | | 2021 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 31,930 | 21.68 | Y | | |
| METAL CONTAINER PA 154, 120MM | | 2021 | BWAY CORPORATION / ATLANTA, GA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 4,030 | 72.80 | Y | | |
| IR ILLUM CANNISTER, 120MM | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2021 | Sep 2022 | 7,983 | 296.70 | Y | | |
| IGNITION CARTRIDGE, M1020 | | 2021 | NAMMO POCAL INC. / SCRANTON, PA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Aug 2022 | 7,983 | 24.63 | Y | | |
| PARACHUTE, 120MM | | 2021 | YOLAND CORPORATION / BROOKLYN, NY | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Aug 2022 | 7,983 | 53.54 | Y | | |
| FIBER CONTAINER PA 167, 120MM | | 2021 | UNITED AMMUNITION CONTAINER / MILAN, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2021 | Aug 2022 | 7,983 | 13.63 | Y | | |
| FIN ASSEMBLY, M31 | | 2021 | MACHINING TECHNOLOGIES INC / SALISBURY, MD | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2021 | Sep 2022 | 7,983 | 40.85 | Y | | |

Remarks:
Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 35: Tank Ammunition | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types |
|---|---|

| | | |
|---|--|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|---|--|-------------------------------------|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|------------------|----------------|----------------|----------------|-------------|----------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 3,631.520 | 121.659 | 231.955 | 224.503 | - | 224.503 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 3,631.520 | 121.659 | 231.955 | 224.503 | - | 224.503 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 3,631.520 | 121.659 | 231.955 | 224.503 | - | 224.503 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes CARTRIDGE, TANK, 105MM and 120MM ALL TYPES:

(E22125) M724A2 Cartridge replaces the (E22100) M724A1 Cartridge and provides the Army with a range limited (7,000 meters, maximum) round which can be safely fired at all training sites. The Cartridge, M724A2, 105mm Target Practice Discarding Sabot with Tracer (TPDS-T) is used for gunnery training in the Army's 105mm Stryker Brigade Combat Team (SBCT) Mobile Gun System (MGS). This discarding sabot round is similar in external appearance and is ballistically similar out to 2,000 meters with the M900, Armor Piercing Fin Stabilized Discarding Sabot w/Tracer Cartridge. It is used as a training surrogate for the M900 Cartridge used by the MGS. The M724A2 Cartridge consists of a deep drawn steel cartridge case, electric primer, propellant and a projectile consisting of a sub-projectile (steel core, windshield, fin and tracer) and aluminum sabot. This item is Code A, approved for service use.

(E73201) Cartridge, 120mm, Target Practice Multi Purpose-Tracer (TPMP-T) M1002 is a target practice cartridge that simulates the size, weight, ballistics and the loader's function of setting the nose switch of the High Explosive Multi-Purpose cartridge M830A1. This round is fired from the M256 120mm smoothbore cannon on the M1A1/M1A2 Abrams Tank. The projectile is inert and composed of an aluminum body, steel nose with dummy plastic switch, aluminum tailcone, aluminum sabot, nylon obturators and tracer. The tailcone imparts spin to the projectile in flight for stabilization and provides the mechanism to limit the projectile's maximum range. The M1002 replaces the M831A1 cartridge. Tank crews will conduct live fire training with the cartridge to achieve and maintain gunnery proficiency. This item is Code A, approved for service use.

(E73400) 120mm M865A1 (Longer Length) Target Practice Cone-Stabilized Discarding Sabot with Tracer (TPCSDS-T) is the follow on to the M865 TPCSDS-T. The M865A1 is a target practice round that simulates the ballistics of the 120mm M829 Series Armor Piercing Fin-Stabilized Discarding Sabot with Tracer (APFSDS-T) round and is a more accurate representation of the M829A4, in terms of size and handling, than its predecessor. This round is fired from the M256 120mm smoothbore cannon on the M1A1/M1A2 Abrams Tank. The projectile is inert and is composed of a steel core, aluminum fin, aluminum sabots, nylon obturator and tracer. The fin imparts spin to the projectile in flight for stabilization and provides the mechanism to limit the projectile's maximum range. Tank crews will conduct live fire training with the cartridge to achieve and maintain gunnery proficiency. This item is Code A, approved for service use.

(E88105) 120mm HEMP-T, XM1147 The Advanced Multi Purpose (AMP) program is a direct fire line of sight 120mm large caliber munition under development for the Abrams Main Battle Tank. It has three modes of operation including point detonate, point detonate delay and airburst. AMP is the material solution for breaching double reinforced concrete walls and defeating Anti Tank Guided Missile (ATGM) teams from 50m to 2000m (T) and 50m to 4500m (O), a validated gap that cannot currently be met with existing stockpiled ammunition. In addition to added capability, AMP will also consolidate the capabilities of four

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 35: Tank Ammunition | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>existing stockpiled 120mm munitions, thereby addressing the users' battlecarry dilemma by allowing them to load a single munition that is capable of defeating multiple targets including ATGM teams, reinforced walls, personnel, light armor, bunkers, and obstacles. This item is Code B, not approved for service use.</p> <p>(E88106) 120mm M829A4 Armor Piercing Fin Stabilized, Discarding Sabot with Tracer (APFSDS-T) cartridge is the follow on to the M829A3 APFSDS-T cartridge. The M829A4 is the most effective anti-armor kinetic energy cartridge fired from the M256 120mm smoothbore cannon on the M1A1/M1A2 Abrams Tank. This cartridge has been designed to defeat advances in armor protection, specifically advancement in explosive reactive armor (ERA). The cartridge incorporates advancements in propulsion, using a temperature insensitive propellant, novel penetrator design, and an advanced composite sabot. The projectile system consists of a depleted uranium penetrator mated to a drag reducing windshield and flight stabilizing multi-bladed fin, all secured for launch with a composite sabot. The M829A4 captures several new technologies along with components previously used on previous APFSDS-T cartridges, but incorporates technology advancements to yield significant improvement in performance over previous fielded cartridges. This item is Code A, approved for service use.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 35: Tank Ammunition **P-1 Line Item Number / Title:** 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E22125 / CTG, 105mm Tank TPDS-T, M724A2 (Short Rg KE Trnr) [CA58] | P-5a | A | | - / 44.666 | - / - | - / 6.002 | - / - | - / - | - / - |
| P-5 | E73201 / CTG, 120mm Tank, M1002 TP MULTI PUR-TRACE (TPMP-T) [CA31] | P-5a, P-21 | A | | - / 555.822 | - / 59.652 | - / 57.927 | - / 70.353 | - / - | - / 70.353 |
| P-5 | E73400 / CTG, 120mm Tank TPCSDS-T, M865 [CA69] | P-5a, P-21 | A | | - / 2,744.783 | - / 41.893 | - / 13.191 | - / 87.537 | - / - | - / 87.537 |
| P-5 | E88105 / CTG, 120MM TANK, HEMP-T, XM1147 [CA71] | P-5a, P-21 | B | | - / 8.655 | - / 10.000 | - / 38.989 | - / 23.359 | - / - | - / 23.359 |
| P-5 | E88106 / CTG, 120mm Tank APFSDS-T, M829A4 [CA64] | P-5a, P-21 | A | | - / 277.594 | - / 10.114 | - / 115.846 | - / 43.254 | - / - | - / 43.254 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 3,631.520 | - / 121.659 | - / 231.955 | - / 224.503 | - / - | - / 224.503 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$201.144 million supports the procurement of 58,690 cartridges.

FY 2022 Base dollars in the amount of \$23.359 million supports enduring COCOM requirements for European Deterrence Initiative.

(E22125) M724A2 - This is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: 2016

(E73201) M1002 (TPMP-T) - This is a training unique item not used in combat. FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$70.353 million supports the procurement of 23,139 cartridges.

TYPE CLASSIFICATION DATE: 2006

(E73400) M865A1 (Longer Length) - This is a training unique item not used in combat. FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$87.537 million supports the procurement of 30,736 cartridges.

TYPE CLASSIFICATION DATE: 1984

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 35: Tank Ammunition | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |

(E88105) XM1147 (HEMP-T) Advanced Multi Purpose (AMP) - This is a war reserve item used in combat. FY 2022 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$23.359 million supports the enduring COCOM requirement of 2,557 cartridges for European Deterrence Initiative.

TYPE CLASSIFICATION DATE: 2020

(E88106) M829A4 (APFSDS-T) - This is a war reserve item used in combat. FY 2022 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$43.254 million supports the procurement of 2,258 cartridges.

TYPE CLASSIFICATION DATE: 2015

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | Item Number / Title [DODIC]: E22125 / CTG, 105mm Tank TPDS-T, M724A2 (Short Rg KE Trnr) [CA58] |

| | |
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| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|----------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 44.666 | - | 6.002 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 44.666 | - | 6.002 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 44.666 | - | 6.002 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 2,344.20 | 14,403 | 33.763 | - | - | - | 2,726.88 | 1,518 | 4.139 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 33.763 | - | - | - | - | - | 4.139 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 33.763 | - | - | - | - | - | 4.139 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 2.509 | - | - | - | - | - | 0.181 | - | - | - | - | - | - | - | - | - |
| Acceptance Test | - | - | - | - | - | - | - | - | 0.327 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | 2.509 | - | - | - | - | - | 0.508 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 8.394 | - | - | - | - | - | 1.354 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 8.394 | - | - | - | - | - | 1.354 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 44.666 | - | - | - | - | - | 6.002 | - | - | - | - | - | - | - | - | - |

Remarks:

The M724A2 round is procured using a skip year strategy for cost efficiencies due to low quantity buys.

^(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|---|--------------------------------------|-----------------------|------------|--|----------------------|--------------------------|------------------|-------------------------|----------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | Item Number / Title [DODIC]: E22125 / CTG, 105mm Tank TPDS-T, M724A2 (Short Rg KE Trnr) [CA58] | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND | | 2021 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | May 2021 | May 2022 | 1,518 | 2,726.88 | Y | | |

Remarks:
The M724A2 round is procured via a skip year strategy.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types |
| | | Item Number / Title [DODIC]: E73201 / CTG, 120mm Tank, M1002 TP MULTI PUR-TRACE (TPMP-T) [CA31] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|----------------|---------------|---------------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 555.822 | 59.652 | 57.927 | 70.353 | - | 70.353 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 555.822 | 59.652 | 57.927 | 70.353 | - | 70.353 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 555.822 | 59.652 | 57.927 | 70.353 | - | 70.353 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 2,166.52 | 243,617 | 527.801 | 2,421.13 | 17,872 | 43.270 | 2,702.92 | 19,847 | 53.645 | 2,816.11 | 23,139 | 65.162 | - | - | - | 2,816.11 | 23,139 | 65.162 |
| Subtotal: Recurring Cost | - | - | 527.801 | - | - | 43.270 | - | - | 53.645 | - | - | 65.162 | - | - | - | - | - | 65.162 |
| Subtotal: Hardware Cost | - | - | 527.801 | - | - | 43.270 | - | - | 53.645 | - | - | 65.162 | - | - | - | - | - | 65.162 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 3.235 | - | - | 1.129 | - | - | 0.471 | - | - | 0.625 | - | - | - | - | - | 0.625 |
| Subtotal: Support - Acceptance Testing Cost | - | - | 3.235 | - | - | 1.129 | - | - | 0.471 | - | - | 0.625 | - | - | - | - | - | 0.625 |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Production Verification Test | - | - | 1.640 | - | - | 0.552 | - | - | - | - | - | - | - | - | - | - | - | - |
| Reliability | - | - | - | - | - | 4.557 | - | - | - | - | - | - | - | - | - | - | - | - |
| Safety | - | - | - | - | - | 5.860 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Product Improvement Cost | - | - | 1.640 | - | - | 10.969 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 23.119 | - | - | 4.280 | - | - | 3.808 | - | - | 4.562 | - | - | - | - | - | 4.562 |
| Subtotal: Support - Production Engineering Cost | - | - | 23.119 | - | - | 4.280 | - | - | 3.808 | - | - | 4.562 | - | - | - | - | - | 4.562 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |
| Item Number / Title [DODIC]: E73201 / CTG, 120mm Tank, M1002 TP MULTI PUR-TRACE (TPMP-T) [CA31] | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Quality Assurance | - | - | 0.027 | - | - | 0.003 | - | - | 0.003 | - | - | 0.004 | - | - | - | - | - | 0.004 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.027 | - | - | 0.003 | - | - | 0.003 | - | - | 0.004 | - | - | - | - | - | 0.004 |
| Gross/Weapon System Cost | - | - | 555.822 | - | - | 59.652 | - | - | 57.927 | - | - | 70.353 | - | - | - | - | - | 70.353 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | Item Number / Title [DODIC]: E73201 / CTG, 120mm Tank, M1002 TP MULTI PUR-TRACE (TPMP-T) [CA31] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|---|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| COMPLETE ROUND ^(†) | | 2020 | GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL | SS / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Dec 2021 | 9,830 | 2,421.13 | Y | | |
| COMPLETE ROUND ^(†) | | 2020 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | SS / FFP | ROCK ISLAND ARSENAL, IL | May 2020 | Feb 2022 | 8,042 | 2,421.13 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL | SS / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Feb 2022 | 10,916 | 2,702.92 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | SS / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Feb 2022 | 8,931 | 2,702.92 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Feb 2023 | 10,413 | 2,816.11 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | TO BE SELECTED / TBS02 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Feb 2023 | 12,726 | 2,816.11 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
Complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution. FY2022 will be a new contract for this round.

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|--|--|--|--|--|--|---|--|--|--|--|--|--|-----------------------|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | | | | | | | | | Item Number / Title [DODIC]: E73201 / CTG, 120mm Tank, M1002 TP MULTI PUR-TRACE (TPMP-T) [CA31] | | | | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | B A L A N C E | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---------------------------------|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 243617 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 9.830 | .000 | 9.830 | | | | | | | | | | | | | | | | | | | | | | | | 9.830 | | | |
| | 2 | 2020 | ARMY | 8.042 | .000 | 8.042 | | | | | | | | | | | | | | | | | | | | | | | | 8.042 | | | |
| | 1 | 2021 | ARMY | 10.916 | .000 | 10.916 | | | | | | | | | | | | | | | | | | | | | | | | 10.916 | | | |
| | 2 | 2021 | ARMY | 8.931 | .000 | 8.931 | | | | | | | | | | | | | | | | | | | | | | | | 8.931 | | | |
| | 3 | 2022 | ARMY | 10.413 | .000 | 10.413 | | | | | | | | | | | | | | | | | | | | | | | | 10.413 | | | |
| | 4 | 2022 | ARMY | 12.726 | .000 | 12.726 | | | | | | | | | | | | | | | | | | | | | | | | 12.726 | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|-----------------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | | | | | | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E73201 / CTG, 120mm Tank, M1002 TP MULTI PUR-TRACE (TPMP-T) [CA31] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2022 | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | B A L A N C E | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 243617 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 9.830 | .000 | 9.830 | - | - | 8.000 | 1.830 | | | | | | | | | | | | | | | | | | | .000 | | | | |
| | 2 | 2020 | ARMY | 8.042 | .000 | 8.042 | - | - | - | - | 4.000 | 4.042 | | | | | | | | | | | | | | | | | .000 | | | | |
| | 1 | 2021 | ARMY | 10.916 | .000 | 10.916 | - | - | - | - | 8.000 | 2.916 | | | | | | | | | | | | | | | | | .000 | | | | |
| | 2 | 2021 | ARMY | 8.931 | .000 | 8.931 | - | - | - | - | 4.000 | 3.958 | .973 | | | | | | | | | | | | | | | | .000 | | | | |
| | 3 | 2022 | ARMY | 10.413 | .000 | 10.413 | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.336 | | | | |
| | 4 | 2022 | ARMY | 12.726 | .000 | 12.726 | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.632 | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|-----------------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | | | | | | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E73201 / CTG, 120mm Tank, M1002 TP MULTI PUR-TRACE (TPMP-T) [CA31] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2024 | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | B A L A N C E | | |
|--|------------------|----|---------|-------------|-----------------------------------|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCE PT TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | | A U G | S E P |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|------|------|--------|--------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 243617 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 9.830 | 9.830 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 2 | 2020 | ARMY | 8.042 | 8.042 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 1 | 2021 | ARMY | 10.916 | 10.916 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 2 | 2021 | ARMY | 8.931 | 8.931 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 3 | 2022 | ARMY | 10.413 | 9.077 | 1.336 | 1.134 | .202 | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 4 | 2022 | ARMY | 12.726 | 11.094 | 1.632 | 1.386 | .246 | | | | | | | | | | | | | | | | | | | | | .000 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types |
| | | Item Number / Title [DODIC]: E73201 / CTG, 120mm Tank, M1002 TP MULTI PUR-TRACE (TPMP-T) [CA31] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | GENERAL DYNAMICS ORD AND TACT - ST PETERSBURG, FL | 500 | 8,000 | 24,000 | 6 | 6 | 11 | 17 | 6 | 6 | 11 | 17 |
| 2 | NORTHROP GRUMMAN INNOVATION - PLYMOUTH, MN | 500 | 8,000 | 24,000 | 6 | 6 | 11 | 17 | 6 | 6 | 11 | 17 |
| 3 | TO BE SELECTED - TBS01 | 500 | 8,000 | 24,000 | 6 | 6 | 11 | 17 | 6 | 6 | 11 | 17 |
| 4 | TO BE SELECTED - TBS02 | 500 | 8,000 | 24,000 | 6 | 6 | 11 | 17 | 6 | 6 | 11 | 17 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | Item Number / Title [DODIC]: E73400 / CTG, 120mm Tank TPCSDS-T, M865 [CA69] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|------------------|---------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 2,744.783 | 41.893 | 13.191 | 87.537 | - | 87.537 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 2,744.783 | 41.893 | 13.191 | 87.537 | - | 87.537 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 2,744.783 | 41.893 | 13.191 | 87.537 | - | 87.537 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 715.27 | 3,773,000 | 2,698.714 | 2,513.47 | 14,670 | 36.873 | 3,159.59 | 2,312 | 7.305 | 2,724.36 | 30,736 | 83.736 | - | - | - | 2,724.36 | 30,736 | 83.736 |
| Subtotal: Recurring Cost | - | - | 2,698.714 | - | - | 36.873 | - | - | 7.305 | - | - | 83.736 | - | - | - | - | - | 83.736 |
| Subtotal: Hardware Cost | - | - | 2,698.714 | - | - | 36.873 | - | - | 7.305 | - | - | 83.736 | - | - | - | - | - | 83.736 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 3.142 | - | - | 0.552 | - | - | 0.996 | - | - | - | - | - | - | - | - | - |
| First Article Test | - | - | - | - | - | 0.400 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | 3.142 | - | - | 0.952 | - | - | 0.996 | - | - | - | - | - | - | - | - | - |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Reliability | - | - | 14.341 | - | - | - | - | - | 0.984 | - | - | - | - | - | - | - | - | - |
| Safety | - | - | 7.142 | - | - | 1.650 | - | - | 1.800 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Product Improvement Cost | - | - | 21.483 | - | - | 1.650 | - | - | 2.784 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 21.427 | - | - | 2.418 | - | - | 2.103 | - | - | 3.801 | - | - | - | - | - | 3.801 |
| Subtotal: Support - Production Engineering Cost | - | - | 21.427 | - | - | 2.418 | - | - | 2.103 | - | - | 3.801 | - | - | - | - | - | 3.801 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.017 | - | - | - | - | - | 0.003 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | Item Number / Title [DODIC]: E73400 / CTG, 120mm Tank TPCSDS-T, M865 [CA69] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.017 | - | - | - | - | - | 0.003 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 2,744.783 | - | - | 41.893 | - | - | 13.191 | - | - | 87.537 | - | - | - | - | - | 87.537 |

Remarks:
Unit cost decrease in FY2022 is due to procuring higher quantity at a projected lower priced range.

(†) indicates the presence of a P-5a

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|--|--|--|---|--|--|--|---|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | Item Number / Title [DODIC]: E73400 / CTG, 120mm Tank TPCSDS-T, M865 [CA69] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|---|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| COMPLETE ROUND ^(†) | | 2020 | GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL | Option / FFP | ROCK ISLAND ARSENAL, IL | Apr 2020 | Apr 2021 | 14,670 | 2,513.47 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Mar 2022 | 1,156 | 3,159.60 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Mar 2022 | 1,156 | 3,159.60 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 12,294 | 2,724.36 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | TO BE SELECTED / TBS02 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 18,442 | 2,724.36 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
Complete round is an average unit cost between two contractors. The quantity split will be determined between the two contractors in the year of execution. FY2022 will be a new contract for this round.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
|--|------------------|--------|---------------------------------|---------------------------------|---|--|--------------------|-------------|-------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|--|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|---------------------------------|--------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | | | | | | | | P-1 Line Item Number / Title: | | | | | | | | | | | | | | Item Number / Title [DODIC]: | | | | | | | | | | | |
| 2034A / 01 / 35 | | | | | | | | | | 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | | | | | | | | | | E73400 / CTG, 120mm Tank TPCSDS-T, M865 [CA69] | | | | | | | | | | | |
| Cost Elements (Units in Thousands) | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | | B A L A N C E | |
| O C C O | M F R # | F Y | S E R V I C E | P R O C Q T Y | A C C E P T P R I O R T O 1 O C T 2 0 1 9 | B A L D U E A S O F 1 O C T | Calendar Year 2020 | | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 3773000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 14.670 | .000 | 14.670 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2021 | ARMY | 1.156 | .000 | 1.156 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1.156 |
| 2 | 2021 | ARMY | 1.156 | .000 | 1.156 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1.156 |
| 3 | 2022 | ARMY | 12.294 | .000 | 12.294 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12.294 |
| 4 | 2022 | ARMY | 18.442 | .000 | 18.442 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 18.442 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | | | | | | | | | | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | | | | | | | | | | Item Number / Title [DODIC]: E73400 / CTG, 120mm Tank TPCSDS-T, M865 [CA69] | | | | | | | | | | | | | |

| Cost Elements (Units in Thousands) | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | BALANCE | | |
|---------------------------------------|---------|------|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|---|---|---------|-------|------|
| O C O # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 3773000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 14.670 | 14.670 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2021 | ARMY | 1.156 | .000 | 1.156 | - | - | - | - | - | 1.156 | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2021 | ARMY | 1.156 | .000 | 1.156 | - | - | - | - | - | 1.156 | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 3 | 2022 | ARMY | 12.294 | .000 | 12.294 | | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.126 | |
| 4 | 2022 | ARMY | 18.442 | .000 | 18.442 | | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7.680 | |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|-----------------------|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | | | | | | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E73400 / CTG, 120mm Tank TPCSDS-T, M865 [CA69] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2024 | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | B A L A N C E | | | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|-------------|-------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | | M A Y | J U N | J U L | A U G |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 3773000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 14.670 | 14.670 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 1 | 2021 | ARMY | 1.156 | 1.156 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 2 | 2021 | ARMY | 1.156 | 1.156 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 3 | 2022 | ARMY | 12.294 | 7.168 | 5.126 | 1.024 | 1.024 | 1.024 | 1.024 | 1.030 | | | | | | | | | | | | | | | | | | .000 | |
| | 4 | 2022 | ARMY | 18.442 | 10.762 | 7.680 | 1.536 | 1.536 | 1.536 | 1.536 | 1.536 | | | | | | | | | | | | | | | | | | .000 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types |
| | | Item Number / Title [DODIC]: E73400 / CTG, 120mm Tank TPCSDS-T, M865 [CA69] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | GENERAL DYNAMICS ORD AND TACT - ST PETERSBURG, FL | 500 | 8,000 | 24,000 | 0 | 0 | 0 | 0 | 6 | 6 | 12 | 18 |
| 2 | NORTHROP GRUMMAN INNOVATION - PLYMOUTH, MN | 500 | 8,000 | 24,000 | 0 | 0 | 0 | 0 | 6 | 6 | 12 | 18 |
| 3 | TO BE SELECTED - TBS01 | 500 | 8,000 | 24,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |
| 4 | TO BE SELECTED - TBS02 | 500 | 8,000 | 24,000 | 6 | 6 | 12 | 18 | 6 | 6 | 12 | 18 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | Item Number / Title [DODIC]: E88105 / CTG, 120MM TANK, HEMP-T, XM1147 [CA71] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : B | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|---------------|---------------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 8.655 | 10.000 | 38.989 | 23.359 | - | 23.359 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 8.655 | 10.000 | 38.989 | 23.359 | - | 23.359 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 8.655 | 10.000 | 38.989 | 23.359 | - | 23.359 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 14,206.56 | 280 | 3.978 | 14,206.56 | 375 | 5.327 | 9,500.00 | 3,750 | 35.625 | 8,091.07 | 2,557 | 20.689 | - | - | - | 8,091.07 | 2,557 | 20.689 |
| Subtotal: Recurring Cost | - | - | 3.978 | - | - | 5.327 | - | - | 35.625 | - | - | 20.689 | - | - | - | - | - | 20.689 |
| Subtotal: Hardware Cost | - | - | 3.978 | - | - | 5.327 | - | - | 35.625 | - | - | 20.689 | - | - | - | - | - | 20.689 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 1.524 | - | - | 1.000 | - | - | 1.243 | - | - | 1.272 | - | - | - | - | - | 1.272 |
| Subtotal: Support - Acceptance Testing Cost | - | - | 1.524 | - | - | 1.000 | - | - | 1.243 | - | - | 1.272 | - | - | - | - | - | 1.272 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.636 | - | - | 2.661 | - | - | 1.368 | - | - | 1.398 | - | - | - | - | - | 1.398 |
| Subtotal: Support - Production Engineering Cost | - | - | 1.636 | - | - | 2.661 | - | - | 1.368 | - | - | 1.398 | - | - | - | - | - | 1.398 |
| Support - Study & Analysis Cost | | | | | | | | | | | | | | | | | | |
| Study & Analysis | - | - | 1.517 | - | - | 1.011 | - | - | 0.753 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Study & Analysis Cost | - | - | 1.517 | - | - | 1.011 | - | - | 0.753 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 8.655 | - | - | 10.000 | - | - | 38.989 | - | - | 23.359 | - | - | - | - | - | 23.359 |

Remarks:

Unit cost decrease year over year is due to procuring higher quantities in a lower price range as the program transitions from Low Rate Initial Production (LRIP) to Full Rate Production (FRP).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | Item Number / Title [DODIC]: E88105 / CTG, 120MM TANK, HEMP-T, XM1147 [CA71] |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | MDAP/MAIS Code: |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|---|--------------------------------------|-----------------------|------------|------------------------|--|--------------------------|------------------|-------------------------|----------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | Item Number / Title [DODIC]: E88105 / CTG, 120MM TANK, HEMP-T, XM1147 [CA71] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND ^(†) | | 2020 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | PICATINNY ARSENAL, NJ | Dec 2020 | Dec 2021 | 375 | 14,206.56 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | PICATINNY ARSENAL, NJ | Jun 2021 | Jun 2022 | 3,750 | 9,500.00 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2023 | 2,557 | 8,091.07 | Y | | |

^(†) indicates the presence of a P-21

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | |
|---|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|--|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|---|-------------|-------------|----------------|-------------|-------------|---------------------------------|-------------|-------------|-------------|-------------|-------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | | | | | | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E88105 / CTG, 120MM TANK, HEMP-T, XM1147 [CA71] | | | | | | | | | | | |
| Cost Elements (Units in Each) | | | | | | Fiscal Year 2021 | | | | | | | | | | Fiscal Year 2022 | | | | | | | | | | B A L A N C E | | | | | |
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2020 | BAL DUE AS OF 1 OCT | Calendar Year 2021 | | | | | | | | | | Calendar Year 2022 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | | M A Y | J U N | J U L | A U G | S E P |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 280 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | | 375 | 0 | 375 | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | |
| 1 | 2021 | ARMY | | 3,750 | 0 | 3,750 | | | | | | | | | | | | | | | | | | | | | | | 2,125 | | |
| 1 | 2022 | ARMY | | 2,557 | 0 | 2,557 | | | | | | | | | | | | | | | | | | | | | | | 2,557 | | |
| | | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | | | | | | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E88105 / CTG, 120MM TANK, HEMP-T, XM1147 [CA71] | | | | | | | | | |

| Cost Elements (Units in Each) | | | | | | Fiscal Year 2023 | | | | | | | | | | | | Fiscal Year 2024 | | | | | | | | | | | | B A L A N C E | |
|----------------------------------|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2022 | BAL DUE AS OF 1 OCT | Calendar Year 2023 | | | | | | | | | | | | Calendar Year 2024 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|------|------|-------|-------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----|-----|-----|-----|-----|-----|---|---|
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 280 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 375 | 375 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| 1 | 2021 | ARMY | 3,750 | 1,625 | 2,125 | 500 | 500 | 500 | 500 | 125 | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| 1 | 2022 | ARMY | 2,557 | 0 | 2,557 | - | - | - | - | - | 214 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 213 | 0 | |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|--|---------------------------------|----------------|---|-------------------------------|-----------------|-------------------|--|--------------------|-----------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | Item Number / Title [DODIC]: E88105 / CTG, 120MM TANK, HEMP-T, XM1147 [CA71] | | | | |
| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | NORTHROP GRUMMAN INNOVATION - PLYMOUTH, MN | 100 | 500 | 2,000 | 6 | 9 | 12 | 21 | 6 | 6 | 12 | 18 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | | Item Number / Title [DODIC]: E88106 / CTG, 120mm Tank APFSDS-T, M829A4 [CA64] | | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | MDAP/MAIS Code: | | | | | | | | | |
| Resource Summary | | | | Prior Years | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | FY 2022 Total | |
| Procurement Quantity (Units in Each) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Cost (\$ in Millions) | | | | 277.594 | | 10.114 | | | 115.846 | | | 43.254 | | | - | | 43.254 | |
| Less PY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Net Procurement (P-1) (\$ in Millions) | | | | 277.594 | | 10.114 | | | 115.846 | | | 43.254 | | | - | | 43.254 | |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Total Obligation Authority (\$ in Millions) | | | | 277.594 | | 10.114 | | | 115.846 | | | 43.254 | | | - | | 43.254 | |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) | | | | | | | | | | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | | - | | | - | | | - | | | - | | - | |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. | | | | | | | | | | | | | | | | | | |
| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND(†) | 13,050.97 | 18,255 | 238.245 | 16,320.00 | 308 | 5.027 | 16,646.40 | 6,600 | 109.866 | 17,845.23 | 2,258 | 40.295 | - | - | - | 17,845.23 | 2,258 | 40.295 |
| Subtotal: Recurring Cost | - | - | 238.245 | - | - | 5.027 | - | - | 109.866 | - | - | 40.295 | - | - | - | - | - | 40.295 |
| Subtotal: Hardware Cost | - | - | 238.245 | - | - | 5.027 | - | - | 109.866 | - | - | 40.295 | - | - | - | - | - | 40.295 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 0.985 | - | - | - | - | - | 0.194 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | 0.985 | - | - | - | - | - | 0.194 | - | - | - | - | - | - | - | - | - |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Production Verification Test | - | - | 0.445 | - | - | 0.098 | - | - | - | - | - | - | - | - | - | - | - | - |
| Reliability | - | - | 0.701 | - | - | 2.903 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Product Improvement Cost | - | - | 1.146 | - | - | 3.001 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 37.218 | - | - | 2.087 | - | - | 5.785 | - | - | 2.959 | - | - | - | - | - | 2.959 |
| Subtotal: Support - Production Engineering Cost | - | - | 37.218 | - | - | 2.087 | - | - | 5.785 | - | - | 2.959 | - | - | - | - | - | 2.959 |
| Gross/Weapon System Cost | - | - | 277.594 | - | - | 10.114 | - | - | 115.846 | - | - | 43.254 | - | - | - | - | - | 43.254 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | Item Number / Title [DODIC]: E88106 / CTG, 120mm Tank APFSDS-T, M829A4 [CA64] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |
| <p>Remarks: Unit cost increase in FY2022 is due to procuring lower quantity at a projected higher priced range.</p> <p>(t) indicates the presence of a P-5a</p> | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|---|--------------------------------------|-----------------------|------------|------------------------|---|--------------------------|------------------|-------------------------|----------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | Item Number / Title [DODIC]: E88106 / CTG, 120mm Tank APFSDS-T, M829A4 [CA64] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND ^(†) | | 2020 | TO BE SELECTED / TBS02 | SS / FFP | PICATINNY ARSENAL, NJ | Jun 2021 | Sep 2022 | 308 | 16,320.00 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | TO BE SELECTED / TBS02 | SS / FFP | PICATINNY ARSENAL, NJ | Jun 2021 | Sep 2022 | 6,600 | 16,646.40 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | TO BE SELECTED / TBS02 | SS / FFP | PICATINNY ARSENAL, NJ | Mar 2022 | Jun 2023 | 2,258 | 17,845.23 | Y | | |

^(†) indicates the presence of a P-21

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|-----------------------|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | | | | | | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E88106 / CTG, 120mm Tank APFSDS-T, M829A4 [CA64] | | | | | | | | | |

| Cost Elements (Units in Each) | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | Fiscal Year 2024 | | | | | | | | | | | | | | BALANCE | | | | |
|----------------------------------|---------|------|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|---------|--|--|---|---|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2022 | BAL DUE AS OF 1 OCT | Calendar Year 2023 | | | | | | | | | | | | | | Calendar Year 2024 | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 18255 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2020 | ARMY | 308 | 308 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | |
| 1 | | 2021 | ARMY | 6,600 | 2,692 | 3,908 | 3,000 | 908 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | |
| 1 | | 2022 | ARMY | 2,258 | 0 | 2,258 | - | - | - | - | - | - | - | - | - | - | 2,258 | | | | | | | | | | | | | | | | | | | | | 0 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | |

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|--|--|--|--|---|--|--|--|---|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | Date: May 2021 | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 | | | | P-1 Line Item Number / Title: 1120E22203 / Cartridges, Tank, 105MM And 120MM, All Types | | | | Item Number / Title [DODIC]: E88106 / CTG, 120mm Tank APFSDS-T, M829A4 [CA64] | | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | TO BE SELECTED - TBS02 | 100 | 3,000 | 5,000 | 6 | 9 | 15 | 24 | 6 | 6 | 14 | 20 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition | P-1 Line Item Number / Title: 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types |
|--|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|------------------|---------------|---------------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 2,910.780 | 44.675 | 35.963 | 26.709 | - | 26.709 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 2,910.780 | 44.675 | 35.963 | 26.709 | - | 26.709 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 2,910.780 | 44.675 | 35.963 | 26.709 | - | 26.709 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

(E15101) Artillery Cartridges, 75MM And 105MM, All Types
This budget line includes Cartridge, Artillery, 75mm & 105mm, All Types.

(E21501) CTG, ARTY, 105MM HE, M1 W/O FUZE

The 105mm M1 High Explosive (HE) cartridge contains a HE fill and is used primarily for training although some cartridges are expended in combat operations for fragmentation and blast. The cartridge is loaded with an M67 propellant charge, consisting of seven numbered increment bags sewn together in numerical order. Projectile function is dependent upon the fuze used and may function on impact (instantaneous or delay), above ground at a predetermined height or in proximity to the target area. Fuze function detonates the HE projectile filler resulting in projectile fragmentation and blast. Range varies from 3.5 to 11.3 kilometers, depending on the number of charge bags used. The program remanufactures/recapitalizes the remaining unserviceable cartridges through replacement of M67 Prop Charge and Primer at a reduced cost over new production to provide a cost effective training cartridge. This item is Code A, approved for service use.

(E22002) CTG, ARTY, 105MM SMOKE HC, M84 W/O FUZE

The 105mm M84 Hexachloroethane Zinc Oxide (HC) Smoke compatible with the M762 Electronic Time (ET) series Fuze is a semi-fixed smoke cartridge which is comprised of the M14 Cartridge Case, M28 Percussion Primer, M67 Propellant Charge, and a projectile that contains the pinned base plug, a black powder expelling charge and three HC smoke canisters. Each metal canister contains a core igniter flash tube, a first fire mix and the HC smoke composition. When ignited, HC composition produces a caustic white smoke. The M84A1 Cartridge is loaded and fired in a conventional manner. As the round approaches the target area, the fuze ignites the black powder expelling charge which simultaneously ignites and expels the three HC canisters from the base of the carrier. The smoke canisters fall to the ground producing billowing clouds of smoke which last from 40 to 90 seconds. The HC Smoke is less toxic and less incendiary than White Phosphorous (WP) and can be used on ranges that that prohibit WP rounds for training due to environmental restrictions. The item is Code A approved for service use.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition **P-1 Line Item Number / Title:** 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E21501 / CTG, 105mm ARTY HE, M1 w/o Fuze [C445] | P-5a, P-21 | A | | - / 2,910.780 | - / 44.675 | - / 25.474 | - / 26.709 | - / - | - / 26.709 |
| P-5 | E22002 / CTG, ARTY, 105MM SMOKE HC M84 W/O FUZE | P-5a | A | | - / - | - / - | - / 10.489 | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 2,910.780 | - / 44.675 | - / 35.963 | - / 26.709 | - / - | - / 26.709 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$26.709 million supports the recapitalization of 104,278 M1 High Explosive cartridges.

(E21501) CTG, ARTY, 105MM HE, M1 W/O FUZE
 This program will remanufacture/recapitalize unserviceable rounds in the inventory. This is a training standard item used in both training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals. FY 2022 Total Base procurement dollars in the amount of \$26.709 million supports the procurement of 104,278 M1 recapitalized cartridges.
 TYPE CLASSIFICATION DATE: 1966

(E22002) CTG, ARTY, 105MM SMOKE HC, M84 W/O FUZE
 This is a training standard item used in both training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals.
 TYPE CLASSIFICATION DATE: 1978

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types | Item Number / Title [DODIC]: E21501 / CTG, 105mm ARTY HE, M1 w/ o Fuze [C445] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|------------------|---------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 2,910.780 | 44.675 | 25.474 | 26.709 | - | 26.709 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 2,910.780 | 44.675 | 25.474 | 26.709 | - | 26.709 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 2,910.780 | 44.675 | 25.474 | 26.709 | - | 26.709 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | - | - | - | 102.08 | 209,291 | 21.364 | 121.04 | 100,000 | 12.104 | 129.55 | 104,278 | 13.509 | - | - | - | 129.55 | 104,278 | 13.509 |
| CONTAINER AMMUNITION FIBER PA55 ^(†) | - | - | - | 30.88 | 20,929 | 0.646 | 31.50 | 10,018 | 0.316 | 32.12 | 10,427 | 0.335 | - | - | - | 32.12 | 10,427 | 0.335 |
| M67 PROP CHARGE ^(†) | - | - | - | 20.87 | 213,477 | 4.455 | 21.29 | 102,186 | 2.176 | 51.58 | 106,363 | 5.486 | - | - | - | 51.58 | 106,363 | 5.486 |
| XM64 PROPELLANT MP ^(†) | - | - | - | 8.78 | 502,298 | 4.410 | 8.96 | 240,437 | 2.154 | - | - | - | - | - | - | - | - | - |
| PRIMER PERCUSSION M28B2 ^(†) | - | - | - | 19.56 | 213,477 | 4.176 | 19.95 | 102,186 | 2.039 | 20.34 | 106,363 | 2.163 | - | - | - | 20.34 | 106,363 | 2.163 |
| XM64 PROPELLANT SP ^(†) | - | - | - | 23.60 | 136,039 | 3.211 | 24.07 | 65,118 | 1.567 | - | - | - | - | - | - | - | - | - |
| BOX, PACKING AMMO ^(†) | - | - | - | 36.98 | 104,646 | 3.870 | 37.72 | 50,091 | 1.889 | 38.46 | 86,550 | 3.329 | - | - | - | 38.46 | 86,550 | 3.329 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 42.132 | - | - | 22.245 | - | - | 24.822 | - | - | - | - | - | 24.822 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | 42.132 | - | - | 22.245 | - | - | 24.822 | - | - | - | - | - | 24.822 |
| Support - Non-Recurring Support Cost | | | | | | | | | | | | | | | | | | |
| Facilitization | - | - | - | - | - | - | - | - | 1.019 | - | - | - | - | - | - | - | - | - |

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|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | P-1 Line Item Number / Title: 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types | | | | | | Item Number / Title [DODIC]: E21501 / CTG, 105mm ARTY HE, M1 w/ o Fuze [C445] | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Non-Recurring Support Cost</i> | - | - | - | - | - | - | - | - | 1.019 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | 2.543 | - | - | 2.210 | - | - | 1.887 | - | - | - | - | - | 1.887 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | 2.543 | - | - | 2.210 | - | - | 1.887 | - | - | - | - | - | 1.887 |
| Support - Recapitalization Cost | | | | | | | | | | | | | | | | | | |
| Recapitalization | - | - | 2,910.780 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Recapitalization Cost</i> | - | - | 2,910.780 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 2,910.780 | - | - | 44.675 | - | - | 25.474 | - | - | 26.709 | - | - | - | - | - | 26.709 |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | | | Date: May 2021 | | |
|--|-----|------|--|--------------------------------|-------------------------|------------|------------------------|--|----------------|------------------|-------------------------|----------------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | P-1 Line Item Number / Title: | | | | | Item Number / Title [DODIC]: | | | | |
| 2034A / 01 / 37 | | | 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types | | | | | E21501 / CTG, 105mm ARTY HE, M1 w/ o Fuze [C445] | | | | |
| Cost Elements | OCO | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2020 | BLUE GRASS ARMY DEPOT (BGAD) / RICHMOND, KY | PO | PICATINNY ARSENAL, NJ | Apr 2020 | Apr 2022 | 121,389 | 102.08 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2020 | MCALISTER ARMY AMMUNITION / MCALISTER, OK | PO | PICATINNY ARSENAL, NJ | Apr 2020 | Apr 2022 | 87,902 | 102.08 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2021 | BLUE GRASS ARMY DEPOT (BGAD) / RICHMOND, KY | PO | PICATINNY ARSENAL, NJ | Dec 2020 | Dec 2022 | 100,000 | 121.04 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2022 | BLUE GRASS ARMY DEPOT (BGAD) / RICHMOND, KY | PO | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2024 | 104,278 | 129.55 | Y | | |
| CONTAINER AMMUNITION FIBER PA55 | | 2020 | OMEGA CONTAINER INC. / ARCADIA, LA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Jan 2020 | Jul 2021 | 20,929 | 30.88 | Y | | |
| CONTAINER AMMUNITION FIBER PA55 | | 2021 | OMEGA CONTAINER INC. / ARCADIA, LA | Option / IDDQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 10,018 | 31.50 | Y | | |
| CONTAINER AMMUNITION FIBER PA55 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 10,427 | 32.12 | Y | | |
| M67 PROP CHARGE | | 2020 | GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2020 | Oct 2021 | 213,477 | 20.87 | Y | | |
| M67 PROP CHARGE | | 2021 | GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 102,186 | 21.29 | Y | | |
| M67 PROP CHARGE | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Jun 2023 | 106,363 | 51.58 | Y | | |
| XM64 PROPELLANT MP | | 2020 | BAE SYSTEMS ORDNANCE SYSTEMS / RADFORD, VA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Aug 2020 | Feb 2022 | 502,298 | 8.78 | Y | | |
| XM64 PROPELLANT MP | | 2021 | BAE SYSTEMS ORDNANCE SYSTEMS / RADFORD, VA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 240,437 | 8.96 | Y | | |
| PRIMER PERCUSSION M28B2 | | 2020 | DAY & ZIMMERMANN LONE STAR / TEXARKANA, TX | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Dec 2019 | Jun 2021 | 213,477 | 19.56 | Y | | |
| PRIMER PERCUSSION M28B2 | | 2021 | DAY & ZIMMERMANN LONE STAR / TEXARKANA, TX | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 102,186 | 19.95 | Y | | |
| PRIMER PERCUSSION M28B2 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 106,363 | 20.34 | Y | | |
| XM64 PROPELLANT SP | | 2020 | BAE SYSTEMS ORDNANCE SYSTEMS / RADFORD, VA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Aug 2020 | Feb 2022 | 136,039 | 23.60 | Y | | |
| XM64 PROPELLANT SP | | 2021 | BAE SYSTEMS ORDNANCE SYSTEMS / RADFORD, VA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 65,118 | 24.07 | Y | | |
| BOX, PACKING AMMO | | 2020 | KAIYUH SERVICES, LLC / SPARTA, WI | C / IDIQ | ROCK ISLAND ARSENAL, IL | Apr 2020 | Oct 2021 | 104,646 | 36.98 | Y | | |
| BOX, PACKING AMMO | | 2021 | KAIYUH SERVICES, LLC / SPARTA, WI | C / IDDQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Sep 2022 | 50,091 | 37.72 | Y | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|--|--------------------------------------|----------------------------|---------------|--|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types | | | | Item Number / Title [DODIC]: E21501 / CTG, 105mm ARTY HE, M1 w/ o Fuze [C445] | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| BOX, PACKING AMMO | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | May 2022 | Nov 2023 | 86,550 | 38.46 | Y | | |

(†) indicates the presence of a P-21

Remarks:
Wood Boxes is IDIQ Contract (FY2019) that is competed among 2 qualified suppliers Kaiyuh WI and Choctaw OK

Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | Date: May 2021 | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | P-1 Line Item Number / Title: 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E21501 / CTG, 105mm ARTY HE, M1 w/ o Fuze [C445] | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | | Fiscal Year 2020 | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | B A L A N C E | | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|-------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | | J U N | J U L | A U G |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 121.389 | .000 | 121.389 | | | | | | | | | | | | | | | | | | | | | | | | 121.389 |
| | 2 | 2020 | ARMY | 87.902 | .000 | 87.902 | | | | | | | | | | | | | | | | | | | | | | | | 87.902 |
| | 1 | 2021 | ARMY | 100.000 | .000 | 100.000 | | | | | | | | | | | | | | | | | | | | | | | | 100.000 |
| | 1 | 2022 | ARMY | 104.278 | .000 | 104.278 | | | | | | | | | | | | | | | | | | | | | | | | 104.278 |

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E21501 / CTG, 105mm ARTY HE, M1 w/ o Fuze [C445] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | B A L A N C E | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|-------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 121.389 | .000 | 121.389 | - | - | - | - | - | - | - | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 6.000 | 6.000 | 6.000 | 7.389 | | .000 | | |
| | 2 | 2020 | ARMY | 87.902 | .000 | 87.902 | - | - | - | - | - | - | - | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 3.902 | | | | | | | | | | .000 | |
| | 1 | 2021 | ARMY | 100.000 | .000 | 100.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6.000 | 6.000 | 6.000 | 6.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 4.000 |
| | 1 | 2022 | ARMY | 104.278 | .000 | 104.278 | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 104.278 | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | P-1 Line Item Number / Title: 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types | | | | | | | | | | | | Item Number / Title [DODIC]: E21501 / CTG, 105mm ARTY HE, M1 w/ o Fuze [C445] | | | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2024 | | | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | B A L A N C E | | | | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|--|--|--|------|------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 121.389 | 121.389 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 2 | 2020 | ARMY | 87.902 | 87.902 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 1 | 2021 | ARMY | 100.000 | 96.000 | 4.000 | 4.000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 1 | 2022 | ARMY | 104.278 | .000 | 104.278 | - | - | - | - | - | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 10.500 | 9.778 | | | | | | | | | | | | | | | | .000 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | P-1 Line Item Number / Title: 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types |
| | | Item Number / Title [DODIC]: E21501 / CTG, 105mm ARTY HE, M1 w/ o Fuze [C445] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | BLUE GRASS ARMY DEPOT (BGAD) - RICHMOND, KY | 10,000 | 12,000 | 24,000 | 6 | 6 | 24 | 30 | 6 | 6 | 24 | 30 |
| 2 | MCALESTER ARMY AMMUNITION - MCALESTER, OK | 10,000 | 12,000 | 24,000 | 6 | 6 | 24 | 30 | 6 | 6 | 24 | 30 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types | Item Number / Title [DODIC]: E22002 / CTG, ARTY, 105MM SMOKE HC M84 W/O FUZE |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|-------------|---------|---------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | - | 10.489 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | - | 10.489 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | - | 10.489 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | - | - | - | - | 1,632.53 | 5,910 | 9.648 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | - | - | - | - | - | - | 9.648 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | - | - | - | - | - | - | 9.648 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | 0.841 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | - | - | - | - | - | - | 0.841 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | 10.489 | - | - | - | - | - | - | - | - | - |

^(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|---|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 0530E15101 / Artillery Cartridges, 75MM & 105MM, All Types | | | | | Item Number / Title [DODIC]: E22002 / CTG, ARTY, 105MM SMOKE HC M84 W/O FUZE | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Aug 2021 | Aug 2024 | 5,910 | 1,632.53 | N | Aug 2021 | |

Remarks:
Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types |
|--|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: 123

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|------------------|----------------|----------------|----------------|-------------|----------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 1,454.082 | 256.035 | 306.292 | 174.015 | - | 174.015 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 1,454.082 | 256.035 | 306.292 | 174.015 | - | 174.015 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 1,454.082 | 256.035 | 306.292 | 174.015 | - | 174.015 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

(E89500) ARTILLERY PROJECTILE, 155MM, ALL TYPES
This budget line includes Projectiles, Artillery, 155mm, All Types.

(E67800) PROJ, ARTY, 155MM WP SMOKE M825

The 155mm WP M825A1 is an improved artillery projectile which produces a ground screening smoke cloud 125-150 meters wide for 5-10 minutes. This smoke screen is produced by burning multiple wedge-shaped pieces of felt saturated with White Phosphorous (WP). The system consists principally of a projectile carrier and canister containing 116 WP felt wedges and a center core burster. Projectile carrier is comprised of an ogive, expulsion charge, modified all steel body, and a one-piece steel dome shaped base. Upon M762/M762A1 Electronic Timing (ET) fuze function, the Expulsion Charge is initiated which simultaneously dispenses the canister and ignites a short delay. This delay provides ample time for canister and projectile body separation prior to functioning of the center core Burster which ruptures the canister and disperses 116 WP felt wedges. In less than 45 seconds, a dense and uniform smoke screen is created by burning of the WP. This projectile is shipped with a fusible lifting plug which protects the item during shipping, handling, and storage.

This item is Code A, approved for service use.

(E26900) PROJ, ARTY, 155MM VL ILLUM M1124

The 155mm M1124 Visual Light (VL) Illumination Projectile is fired from 155mm howitzers and is used to illuminate the battlefield to a maximum range of 22.5 kilometers. The M1124 utilizes projectile bodies generated from an on-going M483 Dual Purpose Improved Conventional Munition (DPICM) demilitarization program and leverages the payload contained in the M485A2 VL Illuminating Projectile. The M1124 contains a Canister Loading Assembly, Expulsion Charge, and numerous spacers. The Canister Loading Assembly consists of a Visual Light (VL) Illuminating Candle, Main Parachute, Drogue Parachute, Delay, and Secondary Expulsion Charge. The outer shell of the canister is fitted with three longitudinal fins. The projectile uses an M762 series Electronic Time Fuze. When the fuze functions, the primary expelling charge ignites, forcing the drogue parachute and canister assembly against the base plate, rupturing the base pins and expelling the canister and parachute. The drogue parachute then deploys and the canister fins extend. The expelling charge also ignites the delay element in the canister nose. The delay element ignites the secondary expelling charge within the canister after 6.5 - 9 seconds, igniting the candle and expelling the main parachute. With the main parachute open, the illumination candle descends at 15 feet per second and burns for 75 seconds minimum producing approximately 1,000,000 candlepower.

This item is Code A, approved for service use.

(E66800) PROJ, ARTY, 155MM HE, M795

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| | | |
|--|---|---|
| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: 123 | | |
| <p>The M795 High Explosive (HE) Projectile is the primary HE round used for combat operations with maximum range of 22.5 kilometers. The M795 consists of two DODIC variants, the DA54 which incorporates Insensitive Munitions (IM) technologies that reduces vulnerability from unplanned stimuli e.g. fire/heat, shock and impact, while maintaining or exceeding the same level of effectiveness in combat and the D529 which utilizes a lower cost TNT explosive fill primarily used for training. The 155mm M795 has a high fragmentation steel (HF1) body projectile filled with 23.8 pounds of Explosive fill, and Supplementary Charge. The projectile can use several different fuzes (impact, mechanical time, electronic time and short intrusion proximity). It is used for conventional fire support for harassment and interdiction, fragmentation and blast effect. The M795 projectile is employed against personnel, trucks, electronic surveillance and target acquisition devices, supply points, command and control and communications (C3) installations, and mechanized and armored forces. This item is Code A, approved for service use.</p> <p>(E66501) PROJ, ARTY, 155MM HE RAP XM1113 The 155mm High Explosive (HE) Rocket Assisted Projectile, consists of two variants being produced in parallel to achieve ranges of 40km in current 39 caliber artillery weapon systems and longer ranges in future 58 caliber Extended Range Cannon Artillery (ERCA) weapon systems to achieve the Army's requirement of extended range lethality by FY 2023. The XM1113 will replace the obsolete M549A1 in 39 caliber weapon systems and increase range from 30km to 40km. The XM1113ER will be optimized for 58 caliber guns and allow commanders to provide accurate cannon artillery fires at ranges of 70km and greater with ERCA in FY 2023. Both XM1113/ER projectiles incorporates Insensitive Munitions (IM) technologies that reduces vulnerability from unplanned stimuli e.g. fire/heat, shock and impact, while maintaining or exceeding the same level of effectiveness in combat. The XM1113 projectile has a high fragmentation steel (HF1) body projectile filled with 12 pounds of IMX104 Explosive fill, PBXN-9 Supplementary Charge, and Meltable Fuze Plug. Extended ranges are achieved with 12 pounds of rocket grain propellant. The projectile can use several different conventional fuzes (impact, mechanical time, electronic time and short intrusion proximity) as well as Precision Guidance Kit (PGK). The XM1113ER will primarily be used with the Long Range (LR) Precision Guidance Kit (PGK). Both projectiles are used for conventional fire support for harassment and interdiction, fragmentation and blast effect and are employed against personnel, trucks, electronic warfare surveillance, target acquisition, supply points, command and control and communications (C3), indirect fire capabilities, air defense artillery, and light armored vehicles. Both items are Code B, not approved for service use.</p> <p>(E27001) PROJ, ARTY, 155MM HC SMOKE M116 Series The M116 Series base ejection projectile has a hollow steel casing containing four canisters filled with HC (white) smoke composition. These smoke canisters are stacked within the projectile and separated by felt spacers. Upon fuze function, an expelling charge consisting of 0.34 pounds of black powder flashes through the central tube to ignite the smoke canisters, blow off the base and dispenses all smoke canisters. An effective smoke cloud is produced within 30 seconds, and continues for approximately 1.5 minutes. This item is Code A, approved for service use.</p> <p>(E68510) PROJ, ARTY, 155MM BONUS, MK2 The 155mm Bonus, MK2, is a projectile solution to address the current munition capability gap against medium to heavy armor threats. The capability gap was identified during the Analysis of Alternatives to determine a replacement for Dual Purpose Improved Conventional Munition (DPICM) capability, a cluster munition that must be replaced in accordance with current Department of Defense Cluster Munitions (CM) policy. The 155mm Bonus, MK2, is an off the shelf projectile from Sweden containing two sensor fuzed submunitions, and provide lethal effects against dispersed and poorly located light, medium and heavy armored targets. Bonus will be initially fielded as an Urgent Material Release (UMR), followed by Full Material Release, and meets CM policy. Bonus is a bridging strategy to immediately address critical capability gaps from the loss of DPICM and mitigates risks until the planned program of record (Cannon Delivered Area Effects Munition) is completed. This bridging strategy supports the Army's modernization priorities in support of the National Defense Strategy. This item is Code A, approved for service use.</p> <p>(E67802) PROJ, ARTY, 155MM, HE W/ BASEBLEED XM1128 The XM1128 Extended Range High Explosive (HE) projectile is intended as a replacement for the M795 projectile as the primary HE round for warfare operations utilizing current 39 caliber weapon systems. The XM1128 will have a maximum range of 30km compared to 22.5km with current M795 and incorporate Insensitive Munitions (IM) technologies that reduces vulnerability from unplanned stimuli e.g. fire/heat, shock and impact, while maintaining or exceeding the same level of effectiveness in combat. The 155mm XM1128 consists of a high fragmentation (HF-1) steel body with a streamlined ogive and a base bleed to reduce drag and extend range. The main payload is 20 pounds of IMX-104. The projectile will be compatible with our conventional fuzes (impact, mechanical time, electronic time, proximity) and Precision Guidance Kit. It will be used for conventional fire support for harassment and interdiction, fragmentation, and blast effect. The XM1128 can be employed against personnel, trucks, electronic surveillance and target acquisition devices, supply points, command and control and communications (C3) installations, and mechanized and armored forces.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: 123 | | |
| <p>This item is Code B and not approved for service use.</p> <p>(E21618) PROJ, ARTY, 155mm Extended Range Spotting, M1121 The 155mm Extended Range Spotting, M1121 Artillery Round utilizes projectile bodies generated from an on-going M483 Dual Purpose Improved Conventional Munition (DPICM) demilitarization program and incorporates a more producible White Phosphorous (WP) Bulk-filled Canister with 11.0 lbs of WP that provides smoke spotting capability to a maximum range of 22.5 kilometers providing increased operational effectiveness and improved training. This item is Code A, approved for service use.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types |

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| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: 123

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E21618 / PROJ, ARTY, 155mm Extended Range Spotting, M1121 [DA66] | P-5a | A | | - / 20.968 | - / - | - / 8.521 | - / 8.742 | - / - | - / 8.742 |
| P-5 | E26900 / PROJ, 155mm ARTY VL ILLUM, M485 / M1124 Series [DA57] | P-5a | A | | - / 321.471 | - / - | - / 11.718 | - / 12.088 | - / - | - / 12.088 |
| P-5 | E27001 / PROJ, 155mm ARTY Smoke, M116 Series [D506] | | A | | - / 4.947 | - / 2.978 | - / - | - / - | - / - | - / - |
| P-5 | E66501 / PROJ, 155mm ARTY HE RAP, XM1113 [DZ12] | P-5a, P-21 | B | | - / - | - / 20.000 | - / 26.972 | - / 51.098 | - / - | - / 51.098 |
| P-5 | E66800 / PROJ, 155mm ARTY HE, M795 [DA54] | P-5a, P-21 | A | | - / 790.133 | - / 158.957 | - / 145.569 | - / 61.780 | - / - | - / 61.780 |
| P-5 | E67800 / PROJ, 155mm ARTY WP Smoke, M825 / M825A1 [D528] | P-5a, P-21 | A | | - / 244.859 | - / - | - / 27.088 | - / 27.346 | - / - | - / 27.346 |
| P-5 | E67802 / PROJ, 155mm ARTY HE-BB, XM1128 [DA70] | P-5a | B | | - / - | - / - | - / 15.000 | - / 12.961 | - / - | - / 12.961 |
| P-5 | E68510 / PROJ, ARTY, 155MM BONUS, MK2 | P-5a | A | | - / 71.704 | - / 74.100 | - / 71.424 | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 1,454.082 | - / 256.035 | - / 306.292 | - / 174.015 | - / - | - / 174.015 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The FY 2022 Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$174.015 million supports procurement of 102,650 rounds.

(E67800) PROJ, ARTY, 155MM WP SMOKE M825
 This items is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$27.346 million supports the procurement of 10,819 rounds.
 TYPE CLASSIFICATION DATE: 1982

(E26900) PROJ, ARTY, 155MM VL ILLUM, M485 / M1124
 This items is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$12.088 million supports the procurement of 6,544 rounds.
 TYPE CLASSIFICATION DATE: 1970

(E66800) PROJ, ARTY, 155MM HE, M795

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: 123 | | |
| <p>This is a war reserve item used in combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$61.780 million supports the procurement of 75,357 rounds. In FY 2022, funding in the amount of \$0.450 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments. TYPE CLASSIFICATION DATE: 1982</p> <p>(E66501) PROJ, ARTY, 155MM HE RAP XM1113/ER This is a war reserve item used in combat. FY 2022 Total Base Procurement dollars in the amount of \$51.098 million supports the procurement of 1,400 XM1113 to support Urgent Material Release (UMR) for the 39 caliber Artillery Weapon System. In addition, these dollars also support the procurement of 1,046 XM1113 Extended Range (ER) projectiles to support the M1299 Extended Range Cannon Artillery (ERCA) Self-Propelled Howitzer (SPH) Operational Assessment to achieve lethality at 70km with precision accuracy by FY 2023 and support of the XM1113 ER Urgent Material Release (UMR) TYPE CLASSIFICATION: XM1113 Planned 1QFY23; XM1113ER Planned FY26</p> <p>(E27001) PROJ, ARTY, 155MM HC SMOKE M116 Series This items is a training standard item used in training and combat. The request builds a war reserve inventory in accordance with the Army's procurement goals. TYPE CLASSIFICATION: 1978</p> <p>(E68510) PROJ, ARTY, 155MM BONUS, MK2 This is a war reserve item used in combat. The request builds a war reserve inventory in accordance with the Army's procurement goals.</p> <p>(E67802) PROJ, ARTY, 155MM, HE W/ BASEBLED XM1128 This is a war reserve item used in combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$12.961 million supports the procurement of 2,439 rounds. TYPE CLASSIFICATION DATE: Planned FY22</p> <p>(E21618) PROJ, ARTY, 155mm Extended Range Spotting, M1121 This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base Procurement dollars in the amount of \$8.742 million supports the procurement of 5,045 rounds. TYPE CLASSIFICATION DATE: 2017</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | Item Number / Title [DODIC]: E21618 / PROJ, ARTY, 155mm Extended Range Spotting, M1121 [DA66] |

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| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
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| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|----------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 20.968 | - | 8.521 | 8.742 | - | 8.742 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 20.968 | - | 8.521 | 8.742 | - | 8.742 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 20.968 | - | 8.521 | 8.742 | - | 8.742 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 472.00 | 5,000 | 2.360 | - | - | - | 513.64 | 4,538 | 2.331 | 523.92 | 5,045 | 2.643 | - | - | - | 523.92 | 5,045 | 2.643 |
| MELTABLE FUZE PLUG ^(†) | 10.20 | 5,100 | 0.052 | - | - | - | 8.39 | 4,629 | 0.039 | 8.56 | 5,145 | 0.044 | - | - | - | 8.56 | 5,145 | 0.044 |
| CANNISTER METAL PART SET ^(†) | 588.01 | 5,100 | 2.999 | - | - | - | 762.99 | 4,629 | 3.532 | 702.76 | 5,145 | 3.616 | - | - | - | 702.76 | 5,145 | 3.616 |
| MODIFIED SUPPLEMENTAL CHARGE, PBXN9 ^(†) | 49.99 | 5,100 | 0.255 | - | - | - | 52.01 | 4,629 | 0.241 | 77.71 | 5,145 | 0.400 | - | - | - | 77.71 | 5,145 | 0.400 |
| WOODEN PALLET, IMX ^(†) | 135.59 | 650 | 0.088 | - | - | - | 141.07 | 590 | 0.083 | 143.88 | 656 | 0.094 | - | - | - | 143.88 | 656 | 0.094 |
| MODIFIED PROJECTILE BODY ^(†) | 236.48 | 5,100 | 1.206 | - | - | - | 246.04 | 4,629 | 1.139 | 250.96 | 5,145 | 1.291 | - | - | - | 250.96 | 5,145 | 1.291 |
| <i>Subtotal: Recurring Cost</i> | - | - | 6.960 | - | - | - | - | - | 7.365 | - | - | 8.088 | - | - | - | - | - | 8.088 |
| <i>Subtotal: Hardware Cost</i> | - | - | 6.960 | - | - | - | - | - | 7.365 | - | - | 8.088 | - | - | - | - | - | 8.088 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 2.214 | - | - | - | - | - | 0.050 | - | - | 0.033 | - | - | - | - | - | 0.033 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 2.214 | - | - | - | - | - | 0.050 | - | - | 0.033 | - | - | - | - | - | 0.033 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | Item Number / Title [DODIC]: E21618 / PROJ, ARTY, 155mm Extended Range Spotting, M1121 [DA66] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Production Engineering | - | - | 11.794 | - | - | - | - | - | 1.107 | - | - | 0.621 | - | - | - | - | - | 0.621 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 11.794 | - | - | - | - | - | 1.107 | - | - | 0.621 | - | - | - | - | - | 0.621 |
| Gross/Weapon System Cost | - | - | 20.968 | - | - | - | - | - | 8.521 | - | - | 8.742 | - | - | - | - | - | 8.742 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | Item Number / Title [DODIC]: E21618 / PROJ, ARTY, 155mm Extended Range Spotting, M1121 [DA66] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------------|-------------|------|--|--------------------------------------|-------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2021 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Feb 2021 | Feb 2024 | 4,538 | 513.64 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2022 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Feb 2022 | Feb 2025 | 5,045 | 523.92 | Y | | |
| MELTABLE FUZE PLUG | | 2021 | RTI TECHNOLOGIES, LLC / COLUMBIA, CT | C / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 4,629 | 8.39 | Y | | |
| MELTABLE FUZE PLUG | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | PICATINNY ARSENAL, NJ | Jan 2022 | Jul 2023 | 5,145 | 8.56 | Y | | |
| CANNISTER METAL PART SET | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2021 | Jul 2022 | 4,629 | 762.99 | Y | | |
| CANNISTER METAL PART SET | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Jul 2023 | 5,145 | 702.76 | Y | | |
| MODIFIED SUPPLEMENTAL CHARGE, PBXN9 | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Mar 2021 | Sep 2022 | 4,629 | 52.01 | Y | | |
| MODIFIED SUPPLEMENTAL CHARGE, PBXN9 | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Mar 2022 | Sep 2023 | 5,145 | 77.71 | Y | | |
| WOODEN PALLET, IMX | | 2021 | KNOX CNTY ASSOC REMARKABLE / VINCENNES, IN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Mar 2022 | 590 | 141.07 | Y | | |
| WOODEN PALLET, IMX | | 2022 | KNOX CNTY ASSOC REMARKABLE / VINCENNES, IN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 656 | 143.88 | Y | | |
| MODIFIED PROJECTILE BODY | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Mar 2021 | Sep 2022 | 4,629 | 246.04 | Y | | |
| MODIFIED PROJECTILE BODY | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | ROCK ISLAND ARSENAL, IL | Mar 2022 | Sep 2023 | 5,145 | 250.96 | Y | | |

Remarks:
Meltable Fuze Plug: IDIQ contract awarded (FY2019) to multiple contractors . Requirements competed among the following contractors: RTI Technologie s, Columbia, CT & Polymer Technologies Inc., Clifton, NJ.
Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | Date: May 2021 | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | | | Item Number / Title [DODIC]: E26900 / PROJ, 155mm ARTY VL ILLUM, M485 / M1124 Series [DA57] | | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | MDAP/MAIS Code: | | | | | | | |
| Resource Summary | | | | Prior Years | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | FY 2022 Total | |
| Procurement Quantity (Units in Each) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Cost (\$ in Millions) | | | | 321.471 | | - | | | 11.718 | | | 12.088 | | | - | | 12.088 | |
| Less PY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Net Procurement (P-1) (\$ in Millions) | | | | 321.471 | | - | | | 11.718 | | | 12.088 | | | - | | 12.088 | |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Total Obligation Authority (\$ in Millions) | | | | 321.471 | | - | | | 11.718 | | | 12.088 | | | - | | 12.088 | |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) | | | | | | | | | | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | | - | | | - | | | - | | | - | | - | |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | | - | | | - | | | - | | | - | | - | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 321.83 | 21,937 | 7.060 | - | - | - | 426.08 | 6,394 | 2.724 | 382.03 | 6,544 | 2.500 | - | - | - | 382.03 | 6,544 | 2.500 |
| DELAY ELEMENT, 155MM ILLUM ^(†) | 63.98 | 22,375 | 1.432 | - | - | - | 116.28 | 6,522 | 0.758 | 118.61 | 6,674 | 0.792 | - | - | - | 118.61 | 6,674 | 0.792 |
| M10 EXPULSION CHARGE ASSEMBLY ^(†) | 20.01 | 22,375 | 0.448 | - | - | - | 32.55 | 6,522 | 0.212 | 33.20 | 6,674 | 0.222 | - | - | - | 33.20 | 6,674 | 0.222 |
| PARACHUTE MAIN, 155MM ILLUM ^(†) | 38.98 | 22,375 | 0.872 | - | - | - | 42.00 | 6,522 | 0.274 | 42.15 | 6,674 | 0.281 | - | - | - | 42.15 | 6,674 | 0.281 |
| PARACHUTE MAIN SUPPORTS, 155MM ILLUM ^(†) | 5.15 | 89,503 | 0.461 | - | - | - | 5.47 | 26,088 | 0.143 | 5.52 | 26,699 | 0.147 | - | - | - | 5.52 | 26,699 | 0.147 |
| PARACHUTE DROGUE ASSEMBLY, 155MM ILLUM ^(†) | 17.67 | 22,375 | 0.395 | - | - | - | 16.19 | 6,522 | 0.106 | 20.07 | 6,674 | 0.134 | - | - | - | 20.07 | 6,674 | 0.134 |
| VL ILLUM CANNISTER ^(†) | 342.21 | 22,375 | 7.657 | - | - | - | 458.58 | 6,522 | 2.991 | 467.98 | 6,674 | 3.123 | - | - | - | 467.98 | 6,674 | 3.123 |
| CANISTER MPTS ASSY, 155MM ILLUM ^(†) | 63.09 | 22,375 | 1.412 | - | - | - | 63.36 | 6,522 | 0.413 | 64.62 | 6,674 | 0.431 | - | - | - | 64.62 | 6,674 | 0.431 |

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|--|--|--|--|--|--|---|--|--|--|--|--|---|--|--|--|--|--|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | | | Item Number / Title [DODIC]: E26900 / PROJ, 155mm ARTY VL ILLUM, M485 / M1124 Series [DA57] | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| CANISTER BASE ASSY, 155MM ILLUM ^(†) | 22.99 | 22,375 | 0.514 | - | - | - | 25.94 | 6,522 | 0.169 | 26.45 | 6,674 | 0.177 | - | - | - | 26.45 | 6,674 | 0.177 |
| METAL PARTS SETS ^(†) | 292.26 | 22,094 | 6.457 | - | - | - | 350.10 | 6,522 | 2.283 | 357.09 | 6,674 | 2.383 | - | - | - | 357.09 | 6,674 | 2.383 |
| DOWNLOAD, CLEAN AND INSPECT ^(†) | 74.88 | 23,034 | 1.725 | - | - | - | 74.21 | 6,714 | 0.498 | 124.08 | 6,674 | 0.828 | - | - | - | 124.08 | 6,674 | 0.828 |
| WOODEN PALLET, IMX ^(†) | 111.98 | 2,851 | 0.319 | - | - | - | 141.07 | 831 | 0.117 | 143.88 | 850 | 0.122 | - | - | - | 143.88 | 850 | 0.122 |
| <i>Subtotal: Recurring Cost</i> | - | - | 28.751 | - | - | - | - | - | 10.689 | - | - | 11.141 | - | - | - | - | - | 11.141 |
| <i>Subtotal: Hardware Cost</i> | - | - | 28.751 | - | - | - | - | - | 10.689 | - | - | 11.141 | - | - | - | - | - | 11.141 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.771 | - | - | - | - | - | 0.090 | - | - | 0.090 | - | - | - | - | - | 0.090 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.771 | - | - | - | - | - | 0.090 | - | - | 0.090 | - | - | - | - | - | 0.090 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 291.948 | - | - | - | - | - | 0.939 | - | - | 0.857 | - | - | - | - | - | 0.857 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 291.948 | - | - | - | - | - | 0.939 | - | - | 0.857 | - | - | - | - | - | 0.857 |
| Gross/Weapon System Cost | - | - | 321.471 | - | - | - | - | - | 11.718 | - | - | 12.088 | - | - | - | - | - | 12.088 |

^(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|---|--------------------------------------|-------------------------|---------------|------------------------------|--|-------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | P-1 Line Item Number / Title: | | | | | Item Number / Title [DODIC]: | | | | |
| 2034A / 01 / 37 | | | 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | | E26900 / PROJ, 155mm ARTY VL ILLUM, M485 / M1124 Series [DA57] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| LOAD, ASSEMBLE, PACK (LAP) | | 2021 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Jan 2021 | Jan 2023 | 6,394 | 426.08 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2022 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Jan 2024 | 6,544 | 382.03 | Y | | |
| DELAY ELEMENT, 155MM ILLUM | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2021 | Jul 2022 | 6,522 | 116.28 | Y | | |
| DELAY ELEMENT, 155MM ILLUM | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Jul 2023 | 6,674 | 118.61 | Y | | |
| M10 EXPULSION CHARGE ASSEMBLY | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2021 | Jul 2022 | 6,522 | 32.55 | Y | | |
| M10 EXPULSION CHARGE ASSEMBLY | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Jul 2023 | 6,674 | 33.20 | Y | | |
| PARACHUTE MAIN, 155MM ILLUM | | 2021 | YOLAND CORPORATION / BROOKLYN, NY | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Dec 2020 | Jun 2022 | 6,522 | 42.00 | Y | | |
| PARACHUTE MAIN, 155MM ILLUM | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 6,674 | 42.15 | Y | | |
| PARACHUTE MAIN SUPPORTS, 155MM ILLUM | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2021 | Jul 2022 | 26,088 | 5.47 | Y | | |
| PARACHUTE MAIN SUPPORTS, 155MM ILLUM | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Jul 2023 | 26,699 | 5.52 | Y | | |
| PARACHUTE DROGUE ASSEMBLY, 155MM ILLUM | | 2021 | YOLAND CORPORATION / BROOKLYN, NY | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Dec 2020 | Jun 2022 | 6,522 | 16.19 | Y | | |
| PARACHUTE DROGUE ASSEMBLY, 155MM ILLUM | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 6,674 | 20.07 | Y | | |
| VL ILLUM CANNISTER | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2021 | Jul 2022 | 6,522 | 458.58 | Y | | |
| VL ILLUM CANNISTER | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Jul 2023 | 6,674 | 467.98 | Y | | |
| CANISTER MPTS ASSY, 155MM ILLUM | | 2021 | WOODLAWN MANUFACTURING INC / MARSHALL, TX | Option / IDIQ | PICATINNY ARSENAL, NJ | Apr 2021 | Sep 2022 | 6,522 | 63.36 | Y | | |
| CANISTER MPTS ASSY, 155MM ILLUM | | 2022 | WOODLAWN MANUFACTURING INC / MARSHALL, TX | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Feb 2023 | 6,674 | 64.62 | Y | | |
| CANISTER BASE ASSY, 155MM ILLUM | | 2021 | WOODLAWN MANUFACTURING INC / MARSHALL, TX | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2021 | Sep 2022 | 6,522 | 25.94 | Y | | |
| CANISTER BASE ASSY, 155MM ILLUM | | 2022 | WOODLAWN MANUFACTURING INC / MARSHALL, TX | Option / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Feb 2023 | 6,674 | 26.45 | Y | | |
| METAL PARTS SETS | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2021 | Jul 2022 | 6,522 | 350.10 | Y | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | Item Number / Title [DODIC]: E26900 / PROJ, 155mm ARTY VL ILLUM, M485 / M1124 Series [DA57] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|--------------------------------|-------------|------|---|--------------------------------------|----------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| METAL PARTS SETS | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Jul 2023 | 6,674 | 357.09 | Y | | |
| DOWNLOAD, CLEAN AND INSPECT | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2021 | Jul 2022 | 6,714 | 74.21 | Y | | |
| DOWNLOAD, CLEAN AND INSPECT | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Jul 2023 | 6,674 | 124.08 | Y | | |
| WOODEN PALLET, IMX | | 2021 | KNOX CNTY ASSOC REMARKABLE / VINCENNES, IN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2021 | Mar 2022 | 831 | 141.07 | Y | | |
| WOODEN PALLET, IMX | | 2022 | KNOX CNTY ASSOC REMARKABLE / VINCENNES, IN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 850 | 143.88 | Y | | |

Remarks:
Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | Item Number / Title [DODIC]: E27001 / PROJ, 155mm ARTY Smoke, M116 Series [D506] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|--------------|---------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 4.947 | 2.978 | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 4.947 | 2.978 | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 4.947 | 2.978 | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | - | - | - | 980.68 | 1,050 | 1.030 | - | - | - | - | - | - | - | - | - | - | - | - |
| 155MM M1 - M2 SMOKE CANNISTER ASSEMBLY | - | - | - | 823.00 | 1,082 | 0.890 | - | - | - | - | - | - | - | - | - | - | - | - |
| CASE,PROJECTILE | - | - | - | 393.95 | 1,071 | 0.422 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 2.342 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | 2.342 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.075 | - | - | 0.175 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.075 | - | - | 0.175 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 4.872 | - | - | 0.461 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 4.872 | - | - | 0.461 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 4.947 | - | - | 2.978 | - | - | - | - | - | - | - | - | - | - | - | - |

Remarks:

Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | Item Number / Title [DODIC]: E27001 / PROJ, 155mm ARTY Smoke, M116 Series [D506] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |
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|---|--|--|---|------------------------|----------------|--|--------------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | Item Number / Title [DODIC]: E66501 / PROJ, 155mm ARTY HE RAP, XM1113 [DZ12] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | MDAP/MAIS Code: | | | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | - | 20.000 | 26.972 | 51.098 | - | 51.098 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | - | 20.000 | 26.972 | 51.098 | - | 51.098 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | - | 20.000 | 26.972 | 51.098 | - | 51.098 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND XM1113 ^(†) | - | - | - | 18,295.80 | 692 | 12.661 | 14,931.90 | 1,308 | 19.531 | 13,656.60 | 1,400 | 19.119 | - | - | - | 13,656.60 | 1,400 | 19.119 |
| COMPLETE ROUND XM1113 ER OA ^(†) | - | - | - | - | - | - | - | - | - | 14,484.00 | 540 | 7.821 | - | - | - | 14,484.00 | 540 | 7.821 |
| COMPLETE ROUND XM1113 ER UMR ^(†) | - | - | - | - | - | - | - | - | - | 14,484.00 | 506 | 7.329 | - | - | - | 14,484.00 | 506 | 7.329 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 12.661 | - | - | 19.531 | - | - | 34.270 | - | - | - | - | - | 34.270 |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Test Hardware | - | - | - | - | - | 1.016 | - | - | 3.494 | - | - | 3.196 | - | - | - | - | - | 3.196 |
| <i>Subtotal: Non Recurring Cost</i> | - | - | - | - | - | 1.016 | - | - | 3.494 | - | - | 3.196 | - | - | - | - | - | 3.196 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | 13.677 | - | - | 23.025 | - | - | 37.466 | - | - | - | - | - | 37.466 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | 0.795 | - | - | 0.713 | - | - | 2.250 | - | - | - | - | - | 2.250 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.795 | - | - | 0.713 | - | - | 2.250 | - | - | - | - | - | 2.250 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | 4.238 | - | - | 3.234 | - | - | 5.547 | - | - | - | - | - | 5.547 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | 4.238 | - | - | 3.234 | - | - | 5.547 | - | - | - | - | - | 5.547 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | MDAP/MAIS Code: |
| Item Number / Title [DODIC]: E66501 / PROJ, 155mm ARTY HE RAP, XM1113 [DZ12] | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Support - Support Equipment Cost | | | | | | | | | | | | | | | | | | |
| Test and Measurement Equipment | - | - | - | - | - | - | - | - | - | - | - | 2.600 | - | - | - | - | - | 2.600 |
| <i>Subtotal: Support - Support Equipment Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 2.600 | - | - | - | - | - | 2.600 |
| Support - System Engineering Cost | | | | | | | | | | | | | | | | | | |
| System Engineering | - | - | - | - | - | 1.290 | - | - | - | - | - | 3.235 | - | - | - | - | - | 3.235 |
| <i>Subtotal: Support - System Engineering Cost</i> | - | - | - | - | - | 1.290 | - | - | - | - | - | 3.235 | - | - | - | - | - | 3.235 |
| Gross/Weapon System Cost | - | - | - | - | - | 20.000 | - | - | 26.972 | - | - | 51.098 | - | - | - | - | - | 51.098 |

Remarks:

FY22 Support Costs cover the XM1113 UMR and the ERCA Operational Assessment and UMR of the XM1113 ER Program, includes the Government Engineering and Production management support, Acceptance Testing. Resources to incorporate the ballistics data for the new munitions (XM1113 / XM1113 ER) into the Advanced Field Artillery Tactical Data System (AFATDS) to be able to communicate with the 39 Caliber Artillery Systems (Paladin, M777) and the 58 Caliber Extended Range Cannon Artillery (ERCA).

(t) indicates the presence of a P-5a

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|--|--|--|---|--|--|--|--|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | Item Number / Title [DODIC]: E66501 / PROJ, 155mm ARTY HE RAP, XM1113 [DZ12] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|---|--------------------------------------|-----------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND XM1113 ^(†) | | 2020 | GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL | C / CPFF | PICATINNY ARSENAL, NJ | Sep 2020 | Aug 2022 | 692 | 18,295.80 | Y | | |
| COMPLETE ROUND XM1113 ^(†) | | 2021 | GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL | Option / CPFF | PICATINNY ARSENAL, NJ | Jun 2021 | Nov 2022 | 1,308 | 14,931.90 | Y | | |
| COMPLETE ROUND XM1113 ^(†) | | 2022 | GDOTS -SEATTLE ** / SEATTLE, WA.* | SS / CPFF | PICATINNY ARSENAL, NJ | Feb 2022 | Feb 2024 | 1,400 | 13,656.60 | N | Aug 2021 | |
| COMPLETE ROUND XM1113 ER OA ^(†) | | 2022 | GDOTS - SEATTLE / SEATTLE, WA | SS / CPFF | PICATINNY ARSENAL, NJ | Jan 2022 | Jul 2023 | 540 | 14,484.00 | N | Aug 2021 | |
| COMPLETE ROUND XM1113 ER UMR ^(†) | | 2022 | GDOTS - SEATTLE * / SEATTLE, WA. | SS / CPIF | PICATINNY ARSENAL, NJ | Feb 2022 | Feb 2024 | 506 | 14,484.00 | N | Aug 2021 | |

^(†) indicates the presence of a P-21

Remarks:

The XM1113 and XM1113ER Prime Contractor in FY22 is General Dynamics in Seattle, WA. General Dynamics Seattle is partnered with General Dynamics in Scranton, PA. for Metal Parts, Nammo Talley in Mesa, AZ for Rocket Grains and American Ordnance, Middletown, IA for the Load, Assemble & Pack (LAP).

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types |
| | | Item Number / Title [DODIC]: E66501 / PROJ, 155mm ARTY HE RAP, XM1113 [DZ12] |

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | B A L A N C E | |
|---|------------------|------|---------|-------------|---|--|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----|---------------------------------|--|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEP T P R I O R T O 1 O C T 2 0 1 9 | BAL D U E A S O F 1 O C T | Calendar Year 2020 | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |
| COMPLETE ROUND XM1113 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 692 | 0 | 692 | | | | | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | 692 | | |
| | 1 | 2021 | ARMY | 1,308 | 0 | 1,308 | | | | | | | | | | | | | | | | | | | | | A | - | - | - | - | 1,308 | |
| | 2 | 2022 | ARMY | 1,400 | 0 | 1,400 | | | | | | | | | | | | | | | | | | | | | | | | | | 1,400 | |
| COMPLETE ROUND XM1113 ER OA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | 2022 | ARMY | 540 | 0 | 540 | | | | | | | | | | | | | | | | | | | | | | | | | | 540 | |
| COMPLETE ROUND XM1113 ER UMR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | 2022 | ARMY | 506 | 0 | 506 | | | | | | | | | | | | | | | | | | | | | | | | | | 506 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E66501 / PROJ, 155mm ARTY HE RAP, XM1113 [DZ12] | | | | | | | | | |

| Cost Elements (Units in Each) | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | B A L A N C E | | |
|----------------------------------|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---------------------------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | |
| COMPLETE ROUND XM1113 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 692 | 0 | 692 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | | | | |
| | 1 | 2021 | ARMY | 1,308 | 0 | 1,308 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 650 | - | - | 658 | - | - | - | - | 0 | | | | | |
| | 2 | 2022 | ARMY | 1,400 | 0 | 1,400 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,400 | | | | | | |
| COMPLETE ROUND XM1113 ER OA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | 2022 | ARMY | 540 | 0 | 540 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 60 | 60 | 60 | 360 | | | | |
| COMPLETE ROUND XM1113 ER UMR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | 2022 | ARMY | 506 | 0 | 506 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 506 | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E66501 / PROJ, 155mm ARTY HE RAP, XM1113 [DZ12] | | | | | | | | | |

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2024 | | | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | | | BALANCE | | |
|---|---------|------|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|---------|--|---|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |
| COMPLETE ROUND XM1113 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 692 | 692 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| | 1 | 2021 | ARMY | 1,308 | 1,308 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| | 2 | 2022 | ARMY | 1,400 | 0 | 1,400 | - | - | - | - | 700 | 700 | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| COMPLETE ROUND XM1113 ER OA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | 2022 | ARMY | 540 | 180 | 360 | 60 | 30 | 60 | 60 | 60 | 90 | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| COMPLETE ROUND XM1113 ER UMR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | 2022 | ARMY | 506 | 0 | 506 | - | - | - | - | 60 | 60 | 60 | 60 | 60 | 60 | 86 | | | | | | | | | | | | | | | | | | | 0 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types |
| | | Item Number / Title [DODIC]: E66501 / PROJ, 155mm ARTY HE RAP, XM1113 [DZ12] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | GENERAL DYNAMICS ORD AND TACT - ST PETERSBURG, FL | 60 | 1,000 | 1,500 | 6 | 12 | 23 | 35 | 6 | 9 | 17 | 26 |
| 2 | GDOTS -SEATTLE ** - SEATTLE, WA.* | 60 | 1,000 | 1,500 | 6 | 5 | 24 | 29 | 6 | 6 | 24 | 30 |
| 3 | GDOTS - SEATTLE - SEATTLE, WA | 60 | 1,000 | 1,500 | 6 | 4 | 18 | 22 | 6 | 4 | 18 | 22 |
| 4 | GDOTS - SEATTLE * - SEATTLE, WA. | 60 | 1,000 | 1,500 | 6 | 5 | 24 | 29 | 6 | 6 | 24 | 30 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | Item Number / Title [DODIC]: E66800 / PROJ, 155mm ARTY HE, M795 [DA54] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|----------------|----------------|----------------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 790.133 | 158.957 | 145.569 | 61.780 | - | 61.780 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 790.133 | 158.957 | 145.569 | 61.780 | - | 61.780 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 790.133 | 158.957 | 145.569 | 61.780 | - | 61.780 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 259.30 | 444,166 | 115.170 | 316.59 | 192,999 | 61.102 | 315.26 | 183,085 | 57.719 | 321.56 | 75,357 | 24.232 | - | - | - | 321.56 | 75,357 | 24.232 |
| 155MM METAL BODY PARTS ^(†) | - | - | - | 380.04 | 196,860 | 74.815 | 403.75 | 186,747 | 75.399 | 411.82 | 76,864 | 31.654 | - | - | - | 411.82 | 76,864 | 31.654 |
| SUPPLEMENTARY CHARGE PROJECTILE ^(†) | - | - | - | 12.68 | 196,859 | 2.496 | 11.99 | 186,747 | 2.239 | 12.01 | 76,864 | 0.923 | - | - | - | 12.01 | 76,864 | 0.923 |
| WOODEN PALLETS ^(†) | 135.59 | 8,713 | 1.181 | 120.00 | 24,608 | 2.953 | 124.89 | 23,801 | 2.973 | 127.37 | 9,796 | 1.248 | - | - | - | 127.37 | 9,796 | 1.248 |
| <i>Subtotal: Recurring Cost</i> | - | - | 116.352 | - | - | 141.365 | - | - | 138.330 | - | - | 58.057 | - | - | - | - | - | 58.057 |
| <i>Subtotal: Hardware Cost</i> | - | - | 116.352 | - | - | 141.365 | - | - | 138.330 | - | - | 58.057 | - | - | - | - | - | 58.057 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | 0.600 | - | - | 0.689 | - | - | 0.278 | - | - | - | - | - | 0.278 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.600 | - | - | 0.689 | - | - | 0.278 | - | - | - | - | - | 0.278 |
| Support - Industrial Facilities Cost | | | | | | | | | | | | | | | | | | |
| Iowa Army Ammunition Plant (AAP) | - | - | - | - | - | 10.000 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Industrial Facilities Cost</i> | - | - | - | - | - | 10.000 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Non-Recurring Support Cost | | | | | | | | | | | | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | Item Number / Title [DODIC]: E66800 / PROJ, 155mm ARTY HE, M795 [DA54] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Facilitization | - | - | - | - | - | 0.876 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Non-Recurring Support Cost</i> | - | - | - | - | - | 0.876 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 673.781 | - | - | 6.116 | - | - | 6.550 | - | - | 3.445 | - | - | - | - | - | 3.445 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 673.781 | - | - | 6.116 | - | - | 6.550 | - | - | 3.445 | - | - | - | - | - | 3.445 |
| Gross/Weapon System Cost | - | - | 790.133 | - | - | 158.957 | - | - | 145.569 | - | - | 61.780 | - | - | - | - | - | 61.780 |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | | Item Number / Title [DODIC]: E66800 / PROJ, 155mm ARTY HE, M795 [DA54] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|---|--------------------------------------|-------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | ROCK ISLAND ARSENAL, IL | Sep 2020 | Jun 2023 | 192,999 | 316.59 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2021 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | May 2021 | Jul 2024 | 183,085 | 315.26 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2022 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | Option / IDIQ | ROCK ISLAND ARSENAL, IL | May 2022 | Mar 2025 | 75,357 | 321.56 | Y | | |
| 155MM METAL BODY PARTS | | 2020 | GENERAL DYNAMICS ORD AND TACT / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2020 | Feb 2022 | 196,860 | 380.04 | Y | | |
| 155MM METAL BODY PARTS | | 2021 | GENERAL DYNAMICS ORD AND TACT / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2021 | Feb 2023 | 186,747 | 403.75 | Y | | |
| 155MM METAL BODY PARTS | | 2022 | GENERAL DYNAMICS ORD AND TACT / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Aug 2022 | Feb 2024 | 76,864 | 411.82 | Y | | |
| SUPPLEMENTARY CHARGE PROJECTILE | | 2020 | ACCURATE ENERGETIC SYSTEMS, / MC EWEN, TN | C / IDIQ | PICATINNY ARSENAL, NJ | May 2020 | Nov 2021 | 196,859 | 12.68 | Y | | |
| SUPPLEMENTARY CHARGE PROJECTILE | | 2021 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | May 2021 | Oct 2022 | 186,747 | 11.99 | Y | | |
| SUPPLEMENTARY CHARGE PROJECTILE | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 76,864 | 12.01 | Y | | |
| WOODEN PALLETS | | 2020 | GENERAL DYNAMICS ORD AND TACT / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Aug 2020 | Feb 2022 | 24,608 | 120.00 | Y | | |
| WOODEN PALLETS | | 2021 | GENERAL DYNAMICS ORD AND TACT / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2021 | Feb 2023 | 23,801 | 124.89 | Y | | |
| WOODEN PALLETS | | 2022 | GENERAL DYNAMICS ORD AND TACT / SCRANTON, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Aug 2022 | Feb 2024 | 9,796 | 127.37 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
TNT Supplemental Charges IDIQ awarded (FY2019) to two qualified sources. Accurate Enterprise Systems (AES) McEwen, TN and Spectra Technologies Camden, AR

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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|---|--|--|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | | | | | | | | | Item Number / Title [DODIC]: E66800 / PROJ, 155mm ARTY HE, M795 [DA54] | | | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | B A L A N C E | | | | | | | | | | | | | | | | |
|--|------------------|------|--------------|----------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|---------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 444166 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2020 | ARMY | 192.999 | .000 | 192.999 | | | | | | | | | | | | | | | | | | | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 192.999 | |
| 1 | | 2020 | MC (†) | 134.000 | .000 | 134.000 | | | | | | | | | | | | | | | | | | | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 134.000 |
| 1 | | 2020 | Total | 326.999 | .000 | 326.999 | | | | | | | | | | | | | | | | | | | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 326.999 | |
| 1 | | 2021 | ARMY | 183.085 | .000 | 183.085 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 183.085 | |
| 1 | | 2022 | ARMY | 75.357 | .000 | 75.357 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 75.357 | |
| 1 | | 2022 | MC (†) | 38.162 | .000 | 38.162 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 38.162 | |
| 1 | | 2022 | Total | 113.519 | .000 | 113.519 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 113.519 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | | | | | | | | | |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E66800 / PROJ, 155mm ARTY HE, M795 [DA54] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | B A L A N C E | | | | | | | | |
|--|------------------|--------------|----------------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|---|---------------------------------|---|---|---|--------|--------|--------|----------------|--------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 444166 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 192.999 | .000 | 192.999 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 24.000 | 24.000 | 24.000 | 24.000 | 96.999 |
| 1 | 2020 | MC (†) | 134.000 | .000 | 134.000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 134.000 | |
| 1 | 2020 | Total | 326.999 | .000 | 326.999 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 230.999 | |
| 1 | 2021 | ARMY | 183.085 | .000 | 183.085 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 183.085 | |
| 1 | 2022 | ARMY | 75.357 | .000 | 75.357 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 75.357 | |
| 1 | 2022 | MC (†) | 38.162 | .000 | 38.162 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 38.162 | |
| 1 | 2022 | Total | 113.519 | .000 | 113.519 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 113.519 | |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | | | | | |

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|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | | | | | | | Item Number / Title [DODIC]: E66800 / PROJ, 155mm ARTY HE, M795 [DA54] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2024 | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | BALANCE | | | | | | |
|--|---------|--------------|----------------|---------------|----------------------------|---------------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------------------|--------|--------------------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|-------------|-------|
| O C C O # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | | A P R | M A Y | J U N | J U L | A U G | S E P |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 444166 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 192.999 | 96.000 | 96.999 | 24.000 | 24.000 | 24.000 | 24.000 | .999 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 |
| 1 | 2020 | MC (†) | 134.000 | .000 | 134.000 | - | - | - | - | 23.001 | 24.000 | 24.000 | 24.000 | 24.000 | 14.999 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | |
| 1 | 2020 | Total | 326.999 | 96.000 | 230.999 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 14.999 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | |
| 1 | 2021 | ARMY | 183.085 | .000 | 183.085 | - | - | - | - | - | - | - | - | - | 9.001 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | 24.000 | .000 | |
| 1 | 2022 | ARMY | 75.357 | .000 | 75.357 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | |
| 1 | 2022 | MC (†) | 38.162 | .000 | 38.162 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | |
| 1 | 2022 | Total | 113.519 | .000 | 113.519 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|---|---------------------------------|----------------|---|-------------------------------|-----------------|-------------------|--|--------------------|-----------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | Item Number / Title [DODIC]: E66800 / PROJ, 155mm ARTY HE, M795 [DA54] | | | | |
| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | AMERICAN ORDNANCE LLC (IAAP) - MIDDLETOWN, IA | 8,100 | 16,000 | 24,000 | 12 | 12 | 36 | 48 | 8 | 8 | 36 | 44 |

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | Item Number / Title [DODIC]: E67800 / PROJ, 155mm ARTY WP Smoke, M825 / M825A1 [D528] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 244.859 | - | 27.088 | 27.346 | - | 27.346 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 244.859 | - | 27.088 | 27.346 | - | 27.346 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 244.859 | - | 27.088 | 27.346 | - | 27.346 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | - | - | - | - | - | - | 577.18 | 10,512 | 6.067 | 588.49 | 10,819 | 6.367 | - | - | - | 588.49 | 10,819 | 6.367 |
| S & A MODULE ^(†) | - | - | - | - | - | - | 30.61 | 10,722 | 0.328 | 31.20 | 11,035 | 0.344 | - | - | - | 31.20 | 11,035 | 0.344 |
| DELAY ELEMENT ^(†) | - | - | - | - | - | - | 127.23 | 10,722 | 1.364 | 129.72 | 11,035 | 1.431 | - | - | - | 129.72 | 11,035 | 1.431 |
| 155MM SMOKE CANNISTER ^(†) | - | - | - | - | - | - | 865.30 | 10,722 | 9.278 | 829.30 | 11,035 | 9.151 | - | - | - | 829.30 | 11,035 | 9.151 |
| RETAINERS ^(†) | - | - | - | - | - | - | 9.62 | 10,722 | 0.103 | 9.81 | 11,035 | 0.108 | - | - | - | 9.81 | 11,035 | 0.108 |
| PROJ BODY 155MM M825 ^(†) | - | - | - | - | - | - | 655.13 | 10,722 | 7.024 | 681.59 | 11,035 | 7.521 | - | - | - | 681.59 | 11,035 | 7.521 |
| CHARGE ASSEMBLY,EXPULSION ^(†) | - | - | - | - | - | - | 25.41 | 10,722 | 0.272 | 25.91 | 11,035 | 0.286 | - | - | - | 25.91 | 11,035 | 0.286 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | 24.437 | - | - | 25.209 | - | - | - | - | - | 25.209 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | 24.437 | - | - | 25.209 | - | - | - | - | - | 25.209 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 244.859 | - | - | - | - | - | 0.210 | - | - | 0.210 | - | - | - | - | - | 0.210 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 244.859 | - | - | - | - | - | 0.210 | - | - | 0.210 | - | - | - | - | - | 0.210 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | 2.440 | - | - | 1.927 | - | - | - | - | - | 1.927 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |
| Item Number / Title [DODIC]: E67800 / PROJ, 155mm ARTY WP Smoke, M825 / M825A1 [D528] | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | 2.440 | - | - | 1.927 | - | - | - | - | - | 1.927 |
| Gross/Weapon System Cost | - | - | 244.859 | - | - | - | - | - | 27.088 | - | - | 27.346 | - | - | - | - | - | 27.346 |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | Item Number / Title [DODIC]: E67800 / PROJ, 155mm ARTY WP Smoke, M825 / M825A1 [D528] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|--|--------------------------------------|-------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2021 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Mar 2021 | Sep 2023 | 10,512 | 577.18 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2022 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | PICATINNY ARSENAL, NJ | Jan 2022 | Sep 2024 | 10,819 | 588.49 | Y | | |
| S & A MODULE | | 2021 | ACTION MANUFACTURING COMPANY / BRISTOL, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2021 | Sep 2022 | 10,722 | 30.61 | Y | | |
| S & A MODULE | | 2022 | ACTION MANUFACTURING COMPANY / BRISTOL, PA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Sep 2023 | 11,035 | 31.20 | Y | | |
| DELAY ELEMENT | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2021 | Aug 2022 | 10,722 | 127.23 | Y | | |
| DELAY ELEMENT | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 11,035 | 129.72 | Y | | |
| 155MM SMOKE CANNISTER | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2021 | Aug 2022 | 10,722 | 865.30 | Y | | |
| 155MM SMOKE CANNISTER | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 11,035 | 829.30 | Y | | |
| RETAINERS | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2021 | Aug 2022 | 10,722 | 9.62 | Y | | |
| RETAINERS | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 11,035 | 9.81 | Y | | |
| PROJ BODY 155MM M825 | | 2021 | IMT DEFENSE CORP / WESTERVILLE, OH | C / IDIQ | ROCK ISLAND ARSENAL, IL | Dec 2020 | Jun 2022 | 10,722 | 655.13 | Y | | |
| PROJ BODY 155MM M825 | | 2022 | IMT DEFENSE CORP / WESTERVILLE, OH | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2022 | Sep 2023 | 11,035 | 681.59 | Y | | |
| CHARGE ASSEMBLY,EXPULSION | | 2021 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2021 | Aug 2022 | 10,722 | 25.41 | Y | | |
| CHARGE ASSEMBLY,EXPULSION | | 2022 | CRANE ARMY AMMO ACTIVITY / CRANE, IN | PO | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 11,035 | 25.91 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
Planned acquisition of this item involves long lead time procurement with a Depot/Arsenal.

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Exhibit P-21, Production Schedule: PB 2022 Army **Date:** May 2021

| | | |
|--|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | Item Number / Title [DODIC]: E67800 / PROJ, 155mm ARTY WP Smoke, M825 / M825A1 [D528] |
|--|---|--|

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2021 | | | | | | | | | | | | | | Fiscal Year 2022 | | | | | | | | | | | | B A L A N C E | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2020 | BAL DUE AS OF 1 OCT | Calendar Year 2021 | | | | | | | | | | | | | | Calendar Year 2022 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2021 | ARMY | 10.512 | .000 | 10.512 | | | | | | | | | | | | | | | | | | | | | | | 10.512 | | | | |
| | 1 | 2022 | ARMY | 10.819 | .000 | 10.819 | | | | | | | | | | | | | | | | | | | | | | | 10.819 | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|---|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|---|-------------|----------------|-------------|-------------|-------------|---------------------------------|-------------|-------------|-------------|-------------|-------------|------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | | | | | | | | P-1 Line Item Number / Title: | | | | | | | | | | Item Number / Title [DODIC]: | | | | | | | | | | | | |
| 2034A / 01 / 37 | | | | | | | | | | 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | | | | | | | E67800 / PROJ, 155mm ARTY WP Smoke, M825 / M825A1 [D528] | | | | | | | | | | | | |
| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2023 | | | | | | | | | | Fiscal Year 2024 | | | | | | | | | | B A L A N C E | | | | | | |
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2022 | BAL DUE AS OF 1 OCT | Calendar Year 2023 | | | | | | | | | | Calendar Year 2024 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | | M A Y | J U N | J U L | A U G | S E P | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2021 | ARMY | 10.512 | .000 | 10.512 | - | - | - | - | - | - | - | - | - | - | - | 5.500 | 5.012 | | | | | | | | | | | | | .000 |
| | 1 | 2022 | ARMY | 10.819 | .000 | 10.819 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10.819 | .000 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types |
| | | Item Number / Title [DODIC]: E67800 / PROJ, 155mm ARTY WP Smoke, M825 / M825A1 [D528] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|-------------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | PINE BLUFF ARSENAL - PINE BLUFF, AR | 6,000 | 9,000 | 15,000 | 6 | 6 | 30 | 36 | 6 | 4 | 30 | 34 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | Item Number / Title [DODIC]: E67802 / PROJ, 155mm ARTY HE-BB, XM1128 [DA70] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | | | MDAP/MAIS Code: | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | - | - | 15.000 | 12.961 | - | 12.961 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | - | - | 15.000 | 12.961 | - | 12.961 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | - | - | 15.000 | 12.961 | - | 12.961 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | - | - | - | - | - | - | - | - | - | 1,654.78 | 2,439 | 4.036 | - | - | - | 1,654.78 | 2,439 | 4.036 |
| METAL PART, M1128 ^(†) | - | - | - | - | - | - | - | - | - | 705.94 | 2,756 | 1.946 | - | - | - | 705.94 | 2,756 | 1.946 |
| EXPLOSIVE FILL IMX-104 ^(†) | - | - | - | - | - | - | - | - | - | 24.88 | 63,414 | 1.578 | - | - | - | 24.88 | 63,414 | 1.578 |
| WOODEN PALLET, IMX ^(†) | - | - | - | - | - | - | - | - | - | 143.88 | 317 | 0.046 | - | - | - | 143.88 | 317 | 0.046 |
| MELTABLE FUZE PLUG ^(†) | - | - | - | - | - | - | - | - | - | 8.56 | 2,487 | 0.021 | - | - | - | 8.56 | 2,487 | 0.021 |
| SUPPLEMENTAL CHARGE, PBXN9 ^(†) | - | - | - | - | - | - | - | - | - | 24.34 | 2,487 | 0.061 | - | - | - | 24.34 | 2,487 | 0.061 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 7.687 | - | - | - | - | - | 7.687 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 7.687 | - | - | - | - | - | 7.687 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | - | - | - | - | - | - | 0.250 | - | - | - | - | - | 0.250 |
| First Article Test | - | - | - | - | - | - | - | - | - | - | - | 4.500 | - | - | - | - | - | 4.500 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 4.750 | - | - | - | - | - | 4.750 |
| Support - Congressional Adjustments Cost | | | | | | | | | | | | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | Item Number / Title [DODIC]: E67802 / PROJ, 155mm ARTY HE-BB, XM1128 [DA70] |
| ID Code (A=Service Ready, B=Not Service Ready) : B | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Congressional Adjustments | - | - | - | - | - | - | - | - | 15.000 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Congressional Adjustments Cost</i> | - | - | - | - | - | - | - | - | 15.000 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.524 | - | - | - | - | - | 0.524 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.524 | - | - | - | - | - | 0.524 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | 15.000 | - | - | 12.961 | - | - | - | - | - | 12.961 |

Remarks:

FY2021 \$15.000M Congressional Adjustment: Congressional intent is for RDTE 654802 EU7

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | Item Number / Title [DODIC]: E67802 / PROJ, 155mm ARTY HE-BB, XM1128 [DA70] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------------------|-------------|------|---|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | May 2022 | Nov 2024 | 2,439 | 1,654.78 | N | | |
| METAL PART, M1128 | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Feb 2022 | Jun 2023 | 2,756 | 705.94 | Y | | |
| EXPLOSIVE FILL IMX-104 | | 2022 | BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPOINT, TN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Feb 2024 | 63,414 | 24.88 | Y | | |
| WOODEN PALLET, IMX | | 2022 | KNOX CNTY ASSOC REMARKABLE / VINCENNES, IN | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Feb 2023 | 317 | 143.88 | Y | | |
| MELTABLE FUZE PLUG | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | PICATINNY ARSENAL, NJ | Feb 2022 | Aug 2023 | 2,487 | 8.56 | Y | | |
| SUPPLEMENTAL CHARGE, PBXN9 | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | Feb 2022 | Aug 2023 | 2,487 | 24.34 | Y | | |

Remarks:
 Meltable Fuze Plug: IDIQ contract awarded (FY2019) to multiple contractors . Requirements competed among the following contractors: RTI Technologies, Columbia, CT & Polymer Technologies Inc., Clifton, NJ.
 PBXN9 Supplemental Charges IDIQ awarded (FY2019) to two qualified sources. Accurate Enterprise Systems (AES) McEwen, TN and Spectra Technologies Camden, AR.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | Item Number / Title [DODIC]: E68510 / PROJ, ARTY, 155MM BONUS, MK2 |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|---------------|---------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 71.704 | 74.100 | 71.424 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 71.704 | 74.100 | 71.424 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 71.704 | 74.100 | 71.424 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 56,762.00 | 1,161 | 65.901 | 49,126.21 | 1,410 | 69.268 | 57,789.12 | 1,105 | 63.857 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 65.901 | - | - | 69.268 | - | - | 63.857 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 65.901 | - | - | 69.268 | - | - | 63.857 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 1.197 | - | - | - | - | - | 0.167 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | 1.197 | - | - | - | - | - | 0.167 | - | - | - | - | - | - | - | - | - |
| Support - Fielding Cost | | | | | | | | | | | | | | | | | | |
| Fielding | - | - | - | - | - | 2.459 | - | - | 2.600 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Fielding Cost | - | - | - | - | - | 2.459 | - | - | 2.600 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 4.606 | - | - | 2.374 | - | - | 4.800 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 4.606 | - | - | 2.374 | - | - | 4.800 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 71.704 | - | - | 74.100 | - | - | 71.424 | - | - | - | - | - | - | - | - | - |

(†) indicates the presence of a P-5a

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|--|--|--|---|--|--|--|--|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 3102E89500 / ARTILLERY PROJECTILE, 155MM, All Types | | | | Item Number / Title [DODIC]: E68510 / PROJ, ARTY, 155MM BONUS, MK2 | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------|-------------|------|--|--------------------------------------|--------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND | | 2020 | BAE SYSTEMS BOFORS AB / KARLSKOGA, SWEDEN | Option / FFP | PICATINNY ARSENAL, NJ | Dec 2019 | Mar 2021 | 1,410 | 49,126.21 | Y | | |
| COMPLETE ROUND | | 2021 | BAE SYSTEMS BOFORS AB / KARLSKOGA, SWEDEN | Option / FFP | PICATINNY ARSENAL, NJ | Jan 2021 | Apr 2022 | 1,105 | 57,789.12 | Y | | |

| | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|
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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition

P-1 Line Item Number / Title:
6600E80100 / Proj 155mm Extended Range M982

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604814A

Line Item MDAP/MAIS Code: 366

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|------------------|---------------|---------------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | 14,721 | 905 | 788 | 350 | - | 350 | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 1,321.372 | 92.079 | 76.832 | 73.498 | - | 73.498 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 1,321.372 | 92.079 | 76.832 | 73.498 | - | 73.498 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 1,321.372 | 92.079 | 76.832 | 73.498 | - | 73.498 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|-----------|------------|-----------|------------|---|------------|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | 89,761.02 | 101,744.75 | 97,502.54 | 209,994.29 | - | 209,994.29 | - | - | - | - | - | - |

Description:

This budget line item includes the Excalibur munitions for use in the M777A2 Lightweight 155mm Howitzer (LW155), the M109A6 Paladin Howitzer, the M109A7 Paladin PIM Howitzer and the Swedish Archer Howitzer. Efforts are currently underway to qualify the Excalibur projectile in the Extended Range Cannon Artillery (ERCA) cannon system following the very successful December 2020 demonstration firing at 70 kilometers.

(E80100) Excalibur is a Precision Guided Extended Range 155mm Artillery projectile providing Brigade Combat Teams an organic precision fires capability. It provides improved fire support capability due to its increased range of 40.5 kilometers from the current 39 caliber systems and 70 kilometers from the ERCA system which is currently in development. The projectile has a demonstrated accuracy of less than 2 meters radial miss distances, which enables a first round effect on target reducing the number of rounds required while reducing collateral damage. Excalibur Shaped Trajectory configuration enables user defined angle of attack and angle of fall to maximize effect on target. Excalibur is compatible with the M777A2 Lightweight 155mm Howitzer (LW155), the M109A6 Paladin Howitzer, the M109A7 Paladin PIM Howitzer, and the Swedish Archer Howitzer. Excalibur is resistant to Global Positioning System (GPS) jamming. Due to its mature compartmented design configuration, Excalibur has significant upgrade potential and provides growth opportunities to support the National Defense Strategy, and Army Long Range Precision Fires (LRPF) Cross Functional Team (CFT), range and lethality requirements. Current Excalibur lb has achieved 70.0 kilometers in ERCA demonstration test.

Excalibur is currently fielded and in use. Excalibur is an International Cooperative Development program, teamed with the Kingdom of Sweden (KoS), which contributed resources towards the development in accordance with an established Project Agreement.

This item is Code A, approved for service use.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition **P-1 Line Item Number / Title:** 6600E80100 / Proj 155mm Extended Range M982

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604814A

Line Item MDAP/MAIS Code: 366

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E80103 / PROJ, 155mm ARTY, Extended Range M982-U Excalibur [DA58] | P-5a, P-21 | A | | 14,721 / 1,321.372 | 905 / 92.079 | 788 / 76.832 | 350 / 73.498 | - / - | 350 / 73.498 |
| P-40 | Total Gross/Weapon System Cost | | | | 14,721 / 1,321.372 | 905 / 92.079 | 788 / 76.832 | 350 / 73.498 | - / - | 350 / 73.498 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

This is a critical munition and war reserve item currently being used in combat. The FY 2022 request builds a war reserve inventory in accordance with Army's procurement goals.

FY 2022 Base procurement dollars in the amount of \$56.103 million supports the procurement of 252 lb projectiles.

FY 2022 Base procurement dollars in the amount of \$17.395 million supports the Direct War requirement of 98 lb projectiles for Operation Inherent Resolve.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 6600E80100 / Proj 155mm Extended Range M982 | Item Number / Title [DODIC]: E80103 / PROJ, 155mm ARTY, Extended Range M982-U Excalibur [DA58] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|------------------|---------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | 14,721 | 905 | 788 | 350 | - | 350 |
| Gross/Weapon System Cost (\$ in Millions) | | 1,321.372 | 92.079 | 76.832 | 73.498 | - | 73.498 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 1,321.372 | 92.079 | 76.832 | 73.498 | - | 73.498 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 1,321.372 | 92.079 | 76.832 | 73.498 | - | 73.498 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | 89,761.02 | 101,744.75 | 97,502.54 | 209,994.29 | - | 209,994.29 |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND(†) | 84,980.35 | 14,771 | 1,255.245 | 79,679.20 | 905 | 72.110 | 80,948.63 | 788 | 63.788 | 176,624.00 | 350 | 61.818 | - | - | - | 176,624.00 | 350 | 61.818 |
| Subtotal: Recurring Cost | - | - | 1,255.245 | - | - | 72.110 | - | - | 63.788 | - | - | 61.818 | - | - | - | - | - | 61.818 |
| Subtotal: Hardware Cost | - | - | 1,255.245 | - | - | 72.110 | - | - | 63.788 | - | - | 61.818 | - | - | - | - | - | 61.818 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 6.931 | - | - | 0.500 | - | - | 0.370 | - | - | 0.150 | - | - | - | - | - | 0.150 |
| Subtotal: Support - Acceptance Testing Cost | - | - | 6.931 | - | - | 0.500 | - | - | 0.370 | - | - | 0.150 | - | - | - | - | - | 0.150 |
| Support - Congressional Adjustments Cost | | | | | | | | | | | | | | | | | | |
| Congressional Rescission | - | - | - | - | - | 7.500 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Congressional Adjustments Cost | - | - | - | - | - | 7.500 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Engineering Change Proposals Cost | | | | | | | | | | | | | | | | | | |
| Engineering Change Proposals | - | - | 18.317 | - | - | 2.886 | - | - | 2.804 | - | - | 2.804 | - | - | - | - | - | 2.804 |
| Subtotal: Support - Engineering Change Proposals Cost | - | - | 18.317 | - | - | 2.886 | - | - | 2.804 | - | - | 2.804 | - | - | - | - | - | 2.804 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 6600E80100 / Proj 155mm Extended Range M982 | Item Number / Title [DODIC]: E80103 / PROJ, 155mm ARTY, Extended Range M982-U Excalibur [DA58] |

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|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|------------------|---------------|-------------------|-------------------|------------|-------------------|------------------|------------|-------------------|-------------------|------------|-------------------|----------------|------------|-------------------|-------------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 35.423 | - | - | 8.741 | - | - | 9.185 | - | - | 8.073 | - | - | - | - | - | 8.073 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 35.423 | - | - | 8.741 | - | - | 9.185 | - | - | 8.073 | - | - | - | - | - | 8.073 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 5.457 | - | - | 0.342 | - | - | 0.685 | - | - | 0.653 | - | - | - | - | - | 0.653 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 5.457 | - | - | 0.342 | - | - | 0.685 | - | - | 0.653 | - | - | - | - | - | 0.653 |
| Gross/Weapon System Cost | 89,761.02 | 14,721 | 1,321.372 | 101,744.75 | 905 | 92.079 | 97,502.54 | 788 | 76.832 | 209,994.29 | 350 | 73.498 | - | - | - | 209,994.29 | 350 | 73.498 |

Remarks:

FY2021 hardware price reflects combining larger Army quantities with other service and FMS buys for economies of scale. FY2022 higher hardware unit price reflects the lower quantity of Army buys only.

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 6600E80100 / Proj 155mm Extended Range M982 | | | | Item Number / Title [DODIC]: E80103 / PROJ, 155mm ARTY, Extended Range M982-U Excalibur [DA58] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|---|--------------------------------------|--------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND ^(†) | | 2020 | RAYTHEON MISSILE SYSTEMS CO / TUCSON, AZ | Option / FFP | PICATINNY ARSENAL, NJ | Dec 2019 | Jan 2022 | 905 | 79,679.20 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | RAYTHEON MISSILE SYSTEMS CO / TUCSON, AZ | Option / FFP | PICATINNY ARSENAL, NJ | Feb 2021 | Dec 2022 | 788 | 80,948.63 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | RAYTHEON MISSILE SYSTEMS CO / TUCSON, AZ | Option / FFP | PICATINNY ARSENAL, NJ | Jan 2022 | Dec 2023 | 350 | 176,624.00 | Y | | |

^(†) indicates the presence of a P-21

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 6600E80100 / Proj 155mm Extended Range M982 | | | | | | | | | | Item Number / Title [DODIC]: E80103 / PROJ, 155mm ARTY, Extended Range M982-U Excalibur [DA58] | | | | | | | | | |

| Cost Elements (Units in Each) | | | | | Fiscal Year 2020 | | | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | | | B A L A N C E | | |
|----------------------------------|------------------|------|---------|-------------|---|--|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|---|-----|--|---------------------------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEP T P R I O R T O 1 O C T 2 0 1 9 | BAL D U E A S O F 1 O C T | Calendar Year 2020 | | | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 14771 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 905 | 0 | 905 | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 905 | | | | |
| | 1 | 2021 | ARMY | 788 | 0 | 788 | | | | | | | | | | | | | | | | | | | | | | | | | | | 788 | | | | |
| | 1 | 2022 | ARMY | 350 | 0 | 350 | | | | | | | | | | | | | | | | | | | | | | | | | | | 350 | | | | |
| | | | | | | | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | | | | | | | |
| | | | | | | | C | O | E | A | E | A | A | A | U | U | U | E | C | O | V | E | E | A | A | A | U | U | A | S | | | | | | | |
| | | | | | | | T | V | C | N | B | R | R | Y | N | L | G | P | T | V | C | N | B | R | R | Y | N | L | G | P | | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 6600E80100 / Proj 155mm Extended Range M982 | | | | | | | | | | Item Number / Title [DODIC]: E80103 / PROJ, 155mm ARTY, Extended Range M982-U Excalibur [DA58] | | | | | | | | | |

| Cost Elements (Units in Each) | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | | B A L A N C E | | |
|----------------------------------|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----|----|-----|-----|---------------------------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 14771 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 905 | 0 | 905 | - | - | - | 10 | 10 | 57 | 55 | 95 | 95 | 95 | 95 | 100 | 100 | 98 | 95 | | | | | | | | | | | | | | 0 | | |
| | 1 | 2021 | ARMY | 788 | 0 | 788 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 132 | | | |
| | 1 | 2022 | ARMY | 350 | 0 | 350 | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 350 | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 6600E80100 / Proj 155mm Extended Range M982 | | | | | | | | | | Item Number / Title [DODIC]: E80103 / PROJ, 155mm ARTY, Extended Range M982-U Excalibur [DA58] | | | | | | | | | |

| Cost Elements (Units in Each) | | | | | | Fiscal Year 2024 | | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | | B A L A N C E | |
|----------------------------------|------------------|----|---------|-------------|---|--|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---------------------------------|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEP T P R I O R T O 1 O C T 2 0 2 3 | BAL D U E A S O F 1 O C T | Calendar Year 2024 | | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|------|------|-----|-----|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|--|--|---|
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 14771 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 905 | 905 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| 1 | 2021 | ARMY | 788 | 656 | 132 | 66 | 66 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| 1 | 2022 | ARMY | 350 | 0 | 350 | - | - | 22 | 68 | 68 | 68 | 68 | 56 | | | | | | | | | | | | | | | | | | | | | | 0 |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | P-1 Line Item Number / Title: 6600E80100 / Proj 155mm Extended Range M982 |
| | | Item Number / Title [DODIC]: E80103 / PROJ, 155mm ARTY, Extended Range M982-U Excalibur [DA58] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|--|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | RAYTHEON MISSILE SYSTEMS CO - TUCSON, AZ | 40 | 200 | 400 | 12 | 6 | 21 | 27 | 12 | 4 | 23 | 27 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition

P-1 Line Item Number / Title:
8750E27501 / Artillery Propellants, Fuzes and Primers, All

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|------------------|----------------|----------------|----------------|-------------|----------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 2,029.851 | 271.993 | 247.012 | 150.873 | - | 150.873 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 2,029.851 | 271.993 | 247.012 | 150.873 | - | 150.873 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 2,029.851 | 271.993 | 247.012 | 150.873 | - | 150.873 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

(E27501) Artillery Propellants, Fuzes and Primers, All Types.

(E63000) ARTY, 155MM PRIMER PERCUSSION M82 SERIES

The M82 Percussion Primer is intended for use with all United States 155mm cannon field artillery systems. The M82 Series Percussion Primer is used to initiate the burning of propellant charges and consists of a cylindrical brass case with an extraction flange which contains a base plunger, an ignition element which contains Primer #34 and a container loaded with 22 grains of black powder. This item is Code A, approved for service use.

(E99909) ARTY, FUZE MOFA M782 SERIES

The Multi-Option Fuze for Artillery (MOFA) is compatible with all bursting ammunition fired from all 105mm and 155mm cannon systems including M119, M109, and M777 series firing platforms and cannon assemblies. The MOFA provides proximity, precision time, delay and impact functions in a single fuze. The inductive fuze set feature optimizes MOFA for use with automated ammunition handling equipment. The MOFA combines proven subassemblies such as the safe and arm device with reserve batteries and a proximity sensor technology to affordably achieve enhanced performance, predictability, and safety. This item is Code A, approved for service use.

(E27502) ARTY, 155MM PROP CHG, MACS M231 SERIES

The Modular Artillery Charge System (MACS), M231 "Low Zone is intended for use with all US 155mm cannon field artillery systems in use and development. The M231 is a "low-zone" increment designed to achieve ranges from 3.0 to 12 kilometers. Each MACS increment includes propellant, an ignition system, and a combustible case. Packaging permits long-term storage and helps protect the items from unplanned stimuli. This item is Code A, approved for service use

(E99250) ARTY, FUZE, PRECISION GUIDANCE KIT (PGK)

The Precision Guidance Kit (PGK) is a course correcting fuze that provides precision accuracy and efficiency for 155mm M795 and M549A1 High Explosive (HE) projectiles by eliminating a portion of the inherent errors associated with ballistic firing solutions which effectively reduces the number of projectiles required to execute fire missions. PGK utilizes a Global Positioning System (GPS) receiver and internal Guidance and Navigation Computer to accomplish its mission with point detonating and height of burst fuzing functions. PGK is compatible with the M777A2 Lightweight 155mm Howitzer (LW155), the M109A6 Paladin Howitzer, and the M109A7 Paladin PIM Howitzer. PGK supports the National Defense Strategy and future 155mm projectiles.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>This item is Code A, approved for service use.</p> <p>(ER8021) ARTY, 155MM PROP CHG, MACS M232 SERIES The Modular Artillery Charge System (MACS) M232 "High Zone" is intended for use with all United States 155mm cannon field artillery systems. The M232 "High Zone" increment is designed to achieve ranges from 10 to 40 kilometers. Each MACS increment includes propellant, an ignition system, and a combustible case. Performance enhancing additives are included in the M232 "High Zone" increment. Packaging permits long-term storage and helps protect the items from unplanned stimuli. This item is Code A, approved for service use.</p> <p>(E62208) ARTY, FUZE PD M739A1 The M739A1 Point Detonating (PD) and Delay Fuze is the Army's preferred, primary fuze for 105mm and 155mm projectiles to address point detonating/delay artillery functions. The M739A1 fuze contains an Impact Delay Module (IDM) assembly. The IDM provides fuze initiation delay based upon the completion of mechanical actions caused by projectile deceleration and will function immediately after passing through the target. This item is Code A, approved for service use.</p> <p>(E99350) ARTY, 155mm SUPERCHARGE The Supercharge is a stand-alone top-zone 155 millimeter (mm) propelling charge required to achieve maximum range requirements from the M1299 Extended Range Cannon Artillery (ERCA) Self-Propelled Howitzer (SPH). It achieves lethality overmatch out to 70 kilometers (km) with new extended range projectiles, and increases range with compatible legacy projectiles up to thirty percent. Supercharge is composed of an earlier bag variant and later combustible cartridge case, integral metal Stub Case, electrically initiated primer, and advanced artillery propellant. This item is Code B, not approved for service use.</p> <p>(E99360) ARTY, 155mm STUBCHARGE The Stub Charge consists of stub case plus propellant inside a combustible case. The Stub Charge is required to fire Modular Artillery Charge System (MACS) propellant at charges 1L, 2L, 3H, 4H, 5H & 6H from M908 Extended Range Cannon with slide-block breach. Legacy MACS requires the Stub Charge to operate with increased pressures as a result of the slide-block breach architecture design. This is new to 155mm artillery and provides pressure seal and ignition when firing MACS from M1299 Extended Range Cannon Artillery (ERCA) Self-Propelled Howitzer (SPH). The Stub Charge has two variants, a training variant that has less propellant and allows for home station training out of ERCA using conventional MACS and a tactical variant that is used with the Supercharge for operational use and for live fire training This item is Code B, not approved for service use.</p> <p>(E99251) ARTY, FUZE, 155mm Long Range-Precision Guidance Kit (LR-PGK) The Long Range-Precision Guidance Kit (LR-PGK), XM1171/XM1172, is a new course correcting fuze that provides precision accuracy and effectiveness at extended ranges and is capable in a Global Positioning System (GPS) jammed environment The LR-PGK XM1172 will pursue Urgent Materiel Release (UMR) to achieve precision accuracy at extended ranges and is compatible with the new XM1113ER projectile, MACS 5-6, Supercharge propellant, and 58-caliber XM1299 Extended Range Cannon Artillery (ERCA) Self-Propelled Howitzer (SPH). The LR-PGK (M1171/M1172) will provide the Full Materiel Release (FMR) solution and will be compatible with new XM1113, XM1113ER and XM1128 extended range High Explosive (HE) projectiles, and M795 HE projectiles fired from the XM1299 ERCA, M777A2 Lightweight 155mm Howitzer (LW155), M109A6 Paladin Howitzer, and the M109A7 Paladin PIM Howitzer. This item is Code B, not approved for service use.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All |

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| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
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Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E27502 / PROP CHG, 155mm ARTY MACS, M231 Series [DA12] | P-5a, P-21 | A | | - / 314.884 | - / 7.560 | - / - | - / 11.258 | - / - | - / 11.258 |
| P-5 | E62208 / FUZE, 155mm ARTY Point Detonating (PD), M739 Series [N340] | P-5a, P-21 | A | | - / 298.934 | - / 25.066 | - / 19.170 | - / 13.493 | - / - | - / 13.493 |
| P-5 | E63000 / PRIMER, 155mm ARTY Percussion, M82 Series [N523] | | A | | - / 45.300 | - / 2.494 | - / - | - / - | - / - | - / - |
| P-5 | E99250 / FUZE, 155mm ARTY Precision Guidance Kit (PGK) [NA29] | P-5a, P-21 | A | | - / 717.259 | - / 160.596 | - / 160.711 | - / 43.320 | - / - | - / 43.320 |
| P-5 | E99251 / LONG-RANGE PRECISION GUIDANCE KIT (LR-PGK) | P-5a, P-21 | | | - / - | - / - | - / - | - / 24.677 | - / - | - / 24.677 |
| P-5 | E99350 / 155mm Artillery Supercharge XM654 | P-5a | | | - / - | - / - | - / - | - / 3.151 | - / - | - / 3.151 |
| P-5 | E99360 / 155mm Artillery Stubcharge XM659 | P-5a | | | - / - | - / - | - / - | - / 5.291 | - / - | - / 5.291 |
| P-5 | E99909 / Multi-Option Fuze, Artillery M782 [NA09] | P-5a, P-21 | A | | - / 10.000 | - / - | - / - | - / 13.653 | - / - | - / 13.653 |
| P-5 | ER8021 / PROP CHG, 155mm ARTY MACS, M232 Series [DA67] | P-5a, P-21 | A | | - / 643.474 | - / 76.277 | - / 67.131 | - / 36.030 | - / - | - / 36.030 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 2,029.851 | - / 271.993 | - / 247.012 | - / 150.873 | - / - | - / 150.873 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The FY 2022 budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Base dollars in the amount of \$143.456 million supports the procurement of 161,910 fuzes, 196,459 propelling charges and 4,316 ERCA propulsion stub & supercharges.

FY 2022 Base dollars in the amount of \$7.417 million supports the Direct War requirement of 1,092 PGK fuzes for Operation Inherent Resolve.

(E63000) ARTY, 155MM PRIMER PERCUSSION M82 Series
 This is a training standard item used in training and combat. The request supports annual training and a builds a war reserve inventory in accordance with the Army's procurement goals.
 TYPE CLASSIFICATION DATE: MAY 1961

(E99909) ARTY, FUZE MOFA M782 SERIES
 This is a training standard item used in training and combat. FY 2022 request supports annual training and a builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$13.653 million supports production of 8,118 fuzes.
 TYPE CLASSIFICATION: 1999

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(E27502) ARTY, 155MM PROP CHG, MACS M231 Series This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Total Base dollars in the amount of \$11.258 million supports production of 40,267 charges. TYPE CLASSIFICATION DATE: 1999</p> <p>(E99250) ARTY, FUZE, PRECISION GUIDANCE KIT (PGK) This is a critical munition and war reserve item used in both training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Total Base dollars in the amount of \$35.903 million supports the procurement of 4,335 PGK fuzes. FY 2022 Base procurement dollars in the amount of \$7.417 million supports the procurement of 1,092 PGK fuzes of critical Army munitions consumed in support of Operation Inherent Resolve. TYPE CLASSIFICATION DATE: October 2015</p> <p>(ER8021) ARTY, 155MM PROP CHG, MACS M232 SERIES This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Total Base dollars in the amount of \$36.030 million supports production of 156,192 charges. TYPE CLASSIFICATION DATE: 2001</p> <p>(E62208) ARTY, FUZE PD M739 Series This is a training standard item used in training and combat. FY 2022 request supports annual training and a builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Total Base dollars in the amount of \$13.493 million supports production of 148,095 fuzes. TYPE CLASSIFICATION: 1982</p> <p>(E99350) ARTY, 155MM SUPERCHARGE This is a war reserve item used in combat. FY 2022 Total Base dollars in the amount of \$3.151 million supports the procurement of 1,016 bag supercharges for the ERCA Increased Range SPH Operational Assessment to achieve lethality at 70km with precision accuracy by FY 2023. E99350 is a new start in FY2022. TYPE CLASSIFICATION DATE: 1QFY26</p> <p>(E99360) ARTY, 155MM STUB CHARGE This is a training standard item used in training and combat. FY 2022 Total Base dollars in the amount of \$5.291 million supports the procurement of 1,900 training variant and 1,400 tactical variant stub charges for the ERCA Increased Range SPH Operational Assessment to achieve lethality at 70km with precision accuracy by FY 2023. E99360 is a new start in FY2022. TYPE CLASSIFICATION DATE: 1QFY26</p> <p>(E99251) ARTY, FUZE, 155MM LONG RANGE PRECISION GUIDANCE KIT (LR PGK) This is a critical munition and war reserve item used in both training and combat. FY 2022 Total Base dollars in the amount of \$24.677 million supports the procurement of 270 LR-PGK fuzes to support the ERCA Increased Range SPH Operational Assessment to achieve lethality at 70km with precision accuracy by FY 2023. E99251 is a new start in FY2022. TYPE CLASSIFICATION DATE: 2QFY25</p> <p>In FY 2022, funding in the amount of \$0.450 million for manpower was realigned to Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | Item Number / Title [DODIC]: E27502 / PROP CHG, 155mm ARTY MACS, M231 Series [DA12] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 314.884 | 7.560 | - | 11.258 | - | 11.258 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 314.884 | 7.560 | - | 11.258 | - | 11.258 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 314.884 | 7.560 | - | 11.258 | - | 11.258 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | - | - | 314.884 | 105.91 | 34,920 | 3.698 | - | - | - | 163.59 | 40,267 | 6.587 | - | - | - | 163.59 | 40,267 | 6.587 |
| COMBUSTIBLE CASES - M231 ^(†) | - | - | - | 52.04 | 36,000 | 1.873 | - | - | - | 58.25 | 41,475 | 2.416 | - | - | - | 58.25 | 41,475 | 2.416 |
| CONTAINER, M231 ^(†) | - | - | - | 72.26 | 9,000 | 0.650 | - | - | - | 77.91 | 10,469 | 0.816 | - | - | - | 77.91 | 10,469 | 0.816 |
| IGNITION PROPELLANT, MACS ^(†) | - | - | - | 10.83 | 2,300 | 0.025 | - | - | - | 11.27 | 2,577 | 0.029 | - | - | - | 11.27 | 2,577 | 0.029 |
| <i>Subtotal: Recurring Cost</i> | - | - | 314.884 | - | - | 6.247 | - | - | - | - | - | 9.848 | - | - | - | - | - | 9.848 |
| <i>Subtotal: Hardware Cost</i> | - | - | 314.884 | - | - | 6.247 | - | - | - | - | - | 9.848 | - | - | - | - | - | 9.848 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | 0.450 | - | - | - | - | - | 0.300 | - | - | - | - | - | 0.300 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.450 | - | - | - | - | - | 0.300 | - | - | - | - | - | 0.300 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | 0.863 | - | - | - | - | - | 1.110 | - | - | - | - | - | 1.110 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | 0.863 | - | - | - | - | - | 1.110 | - | - | - | - | - | 1.110 |
| Gross/Weapon System Cost | - | - | 314.884 | - | - | 7.560 | - | - | - | - | - | 11.258 | - | - | - | - | - | 11.258 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | Item Number / Title [DODIC]: E27502 / PROP CHG, 155mm ARTY MACS, M231 Series [DA12] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | Item Number / Title [DODIC]: E27502 / PROP CHG, 155mm ARTY MACS, M231 Series [DA12] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|--|--------------------------------------|--------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | Option / IDIQ | PICATINNY ARSENAL, NJ | May 2020 | May 2022 | 34,920 | 105.91 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2022 | TO BE SELECTED / TBS01 | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2024 | 40,267 | 163.59 | Y | | |
| COMBUSTIBLE CASES - M231 | | 2020 | ARMTEC DEFENSE PRODUCTS CO / COACHELLA, CA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2021 | Mar 2022 | 36,000 | 52.04 | Y | | |
| COMBUSTIBLE CASES - M231 | | 2022 | TO BE SELECTED / TBS01 | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Sep 2023 | 41,475 | 58.25 | Y | | |
| CONTAINER, M231 | | 2020 | CONCO INC. / LOUISVILLE, KY | C / IDIQ | PICATINNY ARSENAL, NJ | May 2020 | May 2021 | 9,000 | 72.26 | Y | | |
| CONTAINER, M231 | | 2022 | TO BE SELECTED / TBS01 | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2023 | 10,469 | 77.91 | Y | | |
| IGNITION PROPELLANT, MACS | | 2020 | ST. MARKS POWDER INC. / CRAWFORDVILLE, FL | Option / IDIQ | PICATINNY ARSENAL, NJ | Apr 2020 | Apr 2021 | 2,300 | 10.83 | Y | | |
| IGNITION PROPELLANT, MACS | | 2022 | ST. MARKS POWDER INC. / CRAWFORDVILLE, FL | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2023 | 2,577 | 11.27 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
 MACS Load Assemble & Pack Contract is an awarded IDIQ (FY2019) that is competed with two qualified suppliers, AO Iowa Middletown, IA and GD Canada.
 MACS Containers is an awarded IDIQ (FY2020) that is competed with two qualified suppliers, CONCO Louisville, KY and Delfasco Greeneville, TN

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | |
|--|---------|------|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|--|-------|-------|-------|-------|------------------|--------------------|-------|--|-------|-------|-------|----------------|-------|-------|-------|---------|-------|--------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | | | | | | | | | | P-1 Line Item Number / Title: | | | | | | | | Item Number / Title [DODIC]: | | | | | | | | | | |
| 2034A / 01 / 37 | | | | | | | | | | | | 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | E27502 / PROP CHG, 155mm ARTY MACS, M231 Series [DA12] | | | | | | | | | | |
| Cost Elements (Units in Thousands) | | | | | | Fiscal Year 2020 | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | BALANCE | | |
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | | J U L | A U G |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 34.920 | .000 | 34.920 | | | | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | 34.920 |
| | 2 | 2022 | ARMY | 40.267 | .000 | 40.267 | | | | | | | | | | | | | | | | | | | | | | | | 40.267 |
| | | | | | | | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S |
| | | | | | | | C | O | E | A | E | A | P | A | U | U | U | E | C | O | V | E | A | E | A | A | U | U | U | E |
| | | | | | | | T | V | C | N | B | R | R | Y | N | L | G | P | T | V | C | N | B | R | R | Y | N | L | G | P |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | |
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| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | Item Number / Title [DODIC]: E27502 / PROP CHG, 155mm ARTY MACS, M231 Series [DA12] | | | | | | | | | | |
| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | B A L A N C E | | | | |
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | | M A Y | J U N | J U L | A U G |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 34.920 | .000 | 34.920 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | |
| | 2 | 2022 | ARMY | 40.267 | .000 | 40.267 | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 40.267 | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | Item Number / Title [DODIC]: E27502 / PROP CHG, 155mm ARTY MACS, M231 Series [DA12] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2024 | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | B A L A N C E | |
|--|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|------|------|--------|--------|--------|---|---|---|---|---|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------|
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 34.920 | 34.920 | .000 | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 2 | 2022 | ARMY | 40.267 | .000 | 40.267 | - | - | - | - | - | 40.267 | | | | | | | | | | | | | | | | | | .000 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |
|--|--|--|--|--|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All |
| | | Item Number / Title [DODIC]: E27502 / PROP CHG, 155mm ARTY MACS, M231 Series [DA12] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | AMERICAN ORDNANCE LLC (IAAP) - MIDDLETOWN, IA | 30,000 | 60,000 | 100,000 | 6 | 6 | 24 | 30 | 6 | 6 | 24 | 30 |
| 2 | TO BE SELECTED - TBS01 | 30,000 | 60,000 | 100,000 | 6 | 6 | 24 | 30 | 6 | 6 | 24 | 30 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | Item Number / Title [DODIC]: E62208 / FUZE, 155mm ARTY Point Detonating (PD), M739 Series [N340] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|---------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 298.934 | 25.066 | 19.170 | 13.493 | - | 13.493 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 298.934 | 25.066 | 19.170 | 13.493 | - | 13.493 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 298.934 | 25.066 | 19.170 | 13.493 | - | 13.493 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | 298.934 | 72.76 | 294,284 | 21.412 | 75.58 | 215,619 | 16.296 | 77.09 | 148,095 | 11.417 | - | - | - | 77.09 | 148,095 | 11.417 |
| Subtotal: Recurring Cost | - | - | 298.934 | - | - | 21.412 | - | - | 16.296 | - | - | 11.417 | - | - | - | - | - | 11.417 |
| Subtotal: Hardware Cost | - | - | 298.934 | - | - | 21.412 | - | - | 16.296 | - | - | 11.417 | - | - | - | - | - | 11.417 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | 1.029 | - | - | 0.798 | - | - | 0.586 | - | - | - | - | - | 0.586 |
| Subtotal: Support - Acceptance Testing Cost | - | - | - | - | - | 1.029 | - | - | 0.798 | - | - | 0.586 | - | - | - | - | - | 0.586 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | 2.626 | - | - | 2.075 | - | - | 1.490 | - | - | - | - | - | 1.490 |
| Subtotal: Support - Production Engineering Cost | - | - | - | - | - | 2.626 | - | - | 2.075 | - | - | 1.490 | - | - | - | - | - | 1.490 |
| Gross/Weapon System Cost | - | - | 298.934 | - | - | 25.066 | - | - | 19.170 | - | - | 13.493 | - | - | - | - | - | 13.493 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | Item Number / Title [DODIC]: E62208 / FUZE, 155mm ARTY Point Detonating (PD), M739 Series [N340] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|--|--------------------------------------|-----------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND ^(†) | | 2020 | ACTION MANUFACTURING COMPANY / BRISTOL, PA | C / IDIQ | PICATINNY ARSENAL, NJ | Jun 2020 | Jun 2023 | 138,464 | 72.76 | Y | | |
| COMPLETE ROUND ^(†) | | 2020 | AMTEC CORPORATION / JANESVILLE, WI | C / IDIQ | PICATINNY ARSENAL, NJ | Jun 2020 | Jun 2023 | 155,820 | 72.76 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | TO BE SELECTED / TBS01 | Option / IDIQ | PICATINNY ARSENAL, NJ | Apr 2021 | Apr 2024 | 215,619 | 75.58 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | TO BE SELECTED / TBS01 | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2025 | 148,095 | 77.09 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
M739A1 Fuze contract awarded FY2019 and is competed among two qualified suppliers. Action Manufacturing Bristol, PA and AMTEC Janesville, WI

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | |
|--|------------------|-------------|---------------------------------|---------------------------------|---|--|--------------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|--------------------|-------------|-------------|-------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | | | | | | P-1 Line Item Number / Title: | | | | | | | | | | Item Number / Title [DODIC]: | | | | | | | | | | | | | |
| 2034A / 01 / 37 | | | | | | | | 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | E62208 / FUZE, 155mm ARTY Point Detonating (PD), M739 Series [N340] | | | | | | | | | | | | | |
| Cost Elements (Units in Thousands) | | | | | | Fiscal Year 2020 | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | B A L A N C E | |
| O C C O | M F R # | F Y | S E R V I C E | P R O C Q T Y | A C C E P T P R I O R T O 1 O C T 2 0 1 9 | B A L D U E A S O F 1 O C T | Calendar Year 2020 | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | ARMY | 138.464 | .000 | 138.464 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | MC (+) | 210.076 | .000 | 210.076 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | Total | 348.540 | .000 | 348.540 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | 2020 | ARMY | 155.820 | .000 | 155.820 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2021 | AFSO (+) | 11.215 | .000 | 11.215 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2021 | ARMY | 215.619 | .000 | 215.619 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2021 | Total | 226.834 | .000 | 226.834 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | AFSO (+) | 11.362 | .000 | 11.362 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | ARMY | 148.095 | .000 | 148.095 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | MC (+) | 147.711 | .000 | 147.711 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | Total | 307.168 | .000 | 307.168 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | Item Number / Title [DODIC]: E62208 / FUZE, 155mm ARTY Point Detonating (PD), M739 Series [N340] | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | B A L A N C E | |
|--|------------------|-------------|--------------|----------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|---------------|---------------|---------------|---------------------------------|---------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | ARMY | 138.464 | .000 | 138.464 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12.538 | 12.538 | 12.538 | 12.538 | 88.312 |
| | 2 | 2020 | MC (†) | 210.076 | .000 | 210.076 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 17.506 | 17.506 | 17.506 | 17.506 | 140.052 |
| | 2 | 2020 | Total | 348.540 | .000 | 348.540 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 30.044 | 30.044 | 30.044 | 30.044 | 228.364 | |
| | 3 | 2020 | ARMY | 155.820 | .000 | 155.820 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12.985 | 12.985 | 12.985 | 12.985 | 103.880 | |
| | 1 | 2021 | AFSO (†) | 11.215 | .000 | 11.215 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11.215 | |
| | 1 | 2021 | ARMY | 215.619 | .000 | 215.619 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 215.619 | |
| | 1 | 2021 | Total | 226.834 | .000 | 226.834 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 226.834 | |
| | 1 | 2022 | AFSO (†) | 11.362 | .000 | 11.362 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11.362 | |
| | 1 | 2022 | ARMY | 148.095 | .000 | 148.095 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 148.095 | |
| | 1 | 2022 | MC (†) | 147.711 | .000 | 147.711 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 147.711 | |
| | 1 | 2022 | Total | 307.168 | .000 | 307.168 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 307.168 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | Item Number / Title [DODIC]: E62208 / FUZE, 155mm ARTY Point Detonating (PD), M739 Series [N340] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2024 | | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | | B A L A N C E | | |
|--|------------------|-------------|--------------|----------------|---|--|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|------------------|---------------|--------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------------------------|--|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEP T P R I O R T O 1 O C T 2 0 2 3 | BAL D U E A S O F 1 O C T | Calendar Year 2024 | | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | ARMY | 138.464 | 50.152 | 88.312 | 12.827 | 13.538 | 13.538 | 13.538 | 13.538 | 4.000 | 6.524 | 10.809 | | | | | | | | | | | | | | | | .000 | | | |
| | 2 | 2020 | MC (+) | 210.076 | 70.024 | 140.052 | 17.506 | 17.506 | 17.506 | 17.506 | 17.506 | 17.506 | 17.506 | 17.510 | | | | | | | | | | | | | | | | .000 | | | |
| | 2 | 2020 | Total | 348.540 | 120.176 | 228.364 | 30.333 | 31.044 | 31.044 | 31.044 | 31.044 | 21.506 | 24.030 | 28.319 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | | |
| | 3 | 2020 | ARMY | 155.820 | 51.940 | 103.880 | 12.985 | 12.985 | 12.985 | 12.985 | 12.985 | 12.985 | 12.985 | 12.985 | | | | | | | | | | | | | | | | .000 | | | |
| | 1 | 2021 | AFSO (+) | 11.215 | .000 | 11.215 | - | - | - | - | - | - | 11.215 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | | |
| | 1 | 2021 | ARMY | 215.619 | .000 | 215.619 | - | - | - | - | - | - | 12.985 | 8.696 | 39.000 | 39.000 | - | 39.000 | 38.938 | - | 38.000 | | | | | | | | | .000 | | | |
| | 1 | 2021 | Total | 226.834 | .000 | 226.834 | - | - | - | - | - | - | 24.200 | 8.696 | 39.000 | 39.000 | - | 39.000 | 38.938 | - | 38.000 | - | - | - | - | - | - | - | - | .000 | | | |
| | 1 | 2022 | AFSO (+) | 11.362 | .000 | 11.362 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | | | |
| | 1 | 2022 | ARMY | 148.095 | .000 | 148.095 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 56.080 | | | | |
| | 1 | 2022 | MC (+) | 147.711 | .000 | 147.711 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 62.508 | | | | |
| | 1 | 2022 | Total | 307.168 | .000 | 307.168 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 118.588 | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | | | Item Number / Title [DODIC]: E62208 / FUZE, 155mm ARTY Point Detonating (PD), M739 Series [N340] | | | | | |

| Cost Elements (Units in Thousands) | | | | | Fiscal Year 2026 | | | | | | | | | | | | Fiscal Year 2027 | | | | | | | | | | | | BALANCE | | |
|---------------------------------------|----------|-------------|--------------|----------------|----------------------------|---------------------|--------------------|---------------|---------------|---------------|---------------|-------|-------|-------|-------|-------|------------------|-------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------------|-------|-------|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2025 | BAL DUE AS OF 1 OCT | Calendar Year 2026 | | | | | | | | | | | | Calendar Year 2027 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | | A U G | S E P |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2020 | ARMY | 138.464 | 138.464 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 | | |
| | 2 | 2020 | MC (+) | 210.076 | 210.076 | .000 | | | | | | | | | | | | | | | | | | | | | | | .000 | | |
| | 2 | 2020 | Total | 348.540 | 348.540 | .000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | |
| | 3 | 2020 | ARMY | 155.820 | 155.820 | .000 | | | | | | | | | | | | | | | | | | | | | | .000 | | | |
| | 1 | 2021 | AFSO (+) | 11.215 | 11.215 | .000 | | | | | | | | | | | | | | | | | | | | | | .000 | | | |
| | 1 | 2021 | ARMY | 215.619 | 215.619 | .000 | | | | | | | | | | | | | | | | | | | | | | .000 | | | |
| | 1 | 2021 | Total | 226.834 | 226.834 | .000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | | |
| | 1 | 2022 | AFSO (+) | 11.362 | 11.362 | .000 | - | - | - | - | - | | | | | | | | | | | | | | | | | .000 | | | |
| | 1 | 2022 | ARMY | 148.095 | 92.015 | 56.080 | 13.145 | 13.145 | 13.145 | 13.145 | 3.500 | | | | | | | | | | | | | | | | | .000 | | | |
| | 1 | 2022 | MC (+) | 147.711 | 85.203 | 62.508 | 12.515 | 12.515 | 12.515 | 12.515 | 12.448 | | | | | | | | | | | | | | | | | .000 | | | |
| | 1 | 2022 | Total | 307.168 | 188.580 | 118.588 | 25.660 | 25.660 | 25.660 | 25.660 | 15.948 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All |
| | | Item Number / Title [DODIC]: E62208 / FUZE, 155mm ARTY Point Detonating (PD), M739 Series [N340] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|--|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | TO BE SELECTED - TBS01 | 20,000 | 35,000 | 50,000 | 2 | 2 | 36 | 38 | 6 | 6 | 36 | 42 |
| 2 | ACTION MANUFACTURING COMPANY - BRISTOL, PA | 20,000 | 35,000 | 50,000 | 10 | 10 | 36 | 46 | 10 | 10 | 36 | 46 |
| 3 | AMTEC CORPORATION - JANESVILLE, WI | 2,500 | 5,000 | 15,000 | 10 | 10 | 36 | 46 | 10 | 10 | 36 | 46 |

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule. "A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | Item Number / Title [DODIC]: E63000 / PRIMER,155mm ARTY Percussion, M82 Series [N523] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|--------------|---------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 45.300 | 2.494 | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 45.300 | 2.494 | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 45.300 | 2.494 | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | 45.300 | 7.70 | 144,000 | 1.109 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 45.300 | - | - | 1.109 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 45.300 | - | - | 1.109 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | 0.210 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | - | - | - | 0.210 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | 1.175 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | - | - | - | 1.175 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 45.300 | - | - | 2.494 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | Item Number / Title [DODIC]: E99250 / FUZE, 155mm ARTY Precision Guidance Kit (PGK) [NA29] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|----------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 717.259 | 160.596 | 160.711 | 43.320 | - | 43.320 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 717.259 | 160.596 | 160.711 | 43.320 | - | 43.320 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 717.259 | 160.596 | 160.711 | 43.320 | - | 43.320 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 8,687.86 | 70,463 | 612.173 | 6,414.22 | 18,363 | 117.784 | 5,556.64 | 25,154 | 139.772 | 6,787.75 | 5,427 | 36.837 | - | - | - | 6,787.75 | 5,427 | 36.837 |
| <i>Subtotal: Recurring Cost</i> | - | - | 612.173 | - | - | 117.784 | - | - | 139.772 | - | - | 36.837 | - | - | - | - | - | 36.837 |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| GPS Receiver Obsolescence (M-Code Compliance) | - | - | 10.303 | - | - | 3.075 | - | - | 3.235 | - | - | - | - | - | - | - | - | - |
| Melody II ASIC Chips | - | - | 26.370 | - | - | 20.076 | - | - | - | - | - | - | - | - | - | - | - | - |
| M762A1 Safe & Arm PBXW14 | - | - | 7.276 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Melody II Qual | - | - | 15.969 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Non Recurring Cost</i> | - | - | 59.918 | - | - | 23.151 | - | - | 3.235 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 672.091 | - | - | 140.935 | - | - | 143.006 | - | - | 36.837 | - | - | - | - | - | 36.837 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 13.479 | - | - | 2.251 | - | - | 2.247 | - | - | 1.622 | - | - | - | - | - | 1.622 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 13.479 | - | - | 2.251 | - | - | 2.247 | - | - | 1.622 | - | - | - | - | - | 1.622 |
| Support - Engineering Change Proposals Cost | | | | | | | | | | | | | | | | | | |
| Engineering Change Proposals | - | - | 12.058 | - | - | 1.225 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | Item Number / Title [DODIC]: E99250 / FUZE, 155mm ARTY Precision Guidance Kit (PGK) [NA29] | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Engineering Change Proposals Cost</i> | - | - | 12.058 | - | - | 1.225 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Production Qualification Test | - | - | 2.000 | - | - | 2.037 | - | - | 2.000 | - | - | - | - | - | - | - | - | - |
| Reliability | - | - | - | - | - | 4.924 | - | - | 5.644 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | 2.000 | - | - | 6.961 | - | - | 7.644 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 17.632 | - | - | 9.223 | - | - | 7.814 | - | - | 4.861 | - | - | - | - | - | 4.861 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 17.632 | - | - | 9.223 | - | - | 7.814 | - | - | 4.861 | - | - | - | - | - | 4.861 |
| Gross/Weapon System Cost | - | - | 717.259 | - | - | 160.596 | - | - | 160.711 | - | - | 43.320 | - | - | - | - | - | 43.320 |

Remarks:

FY2021 PGK Price based on highest quantity range on the contract, FY2022 price is based on the lowest quantity range price.

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | Item Number / Title [DODIC]: E99250 / FUZE, 155mm ARTY Precision Guidance Kit (PGK) [NA29] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|---|--------------------------------------|--------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND ^(†) | | 2020 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | PICATINNY ARSENAL, NJ | Mar 2020 | Mar 2022 | 18,363 | 6,414.22 | Y | | |
| COMPLETE ROUND ^(†) | | 2021 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | PICATINNY ARSENAL, NJ | May 2021 | Mar 2023 | 25,154 | 5,556.64 | Y | | |
| COMPLETE ROUND ^(†) | | 2022 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2024 | 5,427 | 6,787.75 | Y | | |

^(†) indicates the presence of a P-21

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|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | | | | Item Number / Title [DODIC]: E99250 / FUZE, 155mm ARTY Precision Guidance Kit (PGK) [NA29] | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | B A L A N C E | |
|--|------------------|-------------|-------------------|---------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|--|---------------------------------|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 70463 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2020 | ARMY | 18.363 | .000 | 18.363 | | | | | | | | | | | | | | | | | | | | | | | | 18.363 | | | |
| 1 | | 2020 | MC ^(†) | 6.765 | .000 | 6.765 | | | | | | | | | | | | | | | | | | | | | | | | 6.765 | | | |
| 1 | | 2020 | Total | 25.128 | .000 | 25.128 | | | | | | | | | | | | | | | | | | | | | | | | 25.128 | | | |
| 1 | | 2021 | ARMY | 25.154 | .000 | 25.154 | | | | | | | | | | | | | | | | | | | | | | | | 25.154 | | | |
| 1 | | 2021 | MC ^(†) | 5.003 | .000 | 5.003 | | | | | | | | | | | | | | | | | | | | | | | | 5.003 | | | |
| 1 | | 2021 | Total | 30.157 | .000 | 30.157 | | | | | | | | | | | | | | | | | | | | | | | | 30.157 | | | |
| 1 | | 2022 | ARMY | 5.427 | .000 | 5.427 | | | | | | | | | | | | | | | | | | | | | | | | 5.427 | | | |
| 1 | | 2022 | MC ^(†) | 3.955 | .000 | 3.955 | | | | | | | | | | | | | | | | | | | | | | | | 3.955 | | | |
| 1 | | 2022 | Total | 9.382 | .000 | 9.382 | | | | | | | | | | | | | | | | | | | | | | | | 9.382 | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | |
|--|---------|-------------|--------------|---------------|----------------------------|---------------------|--------------------|-------|-------|--|-------|--------------|--------------|--------------|--------------|--------------|------------------|--------------|--------------------|---|--------------|--------------|--------------|----------------|-------|-------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Appropriation / Budget Activity / Budget Sub Activity: | | | | | | | | | | P-1 Line Item Number / Title: | | | | | | | | | | Item Number / Title [DODIC]: | | | | | | | | | | | | | | |
| 2034A / 01 / 37 | | | | | | | | | | 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | E99250 / FUZE, 155mm ARTY Precision Guidance Kit (PGK) [NA29] | | | | | | | | | | | | | | |
| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2022 | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | BALANCE | | | | | | | |
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | | J U N | J U L | A U G | S E P | | | |
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 70463 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2020 | ARMY | 18.363 | .000 | 18.363 | - | - | - | - | - | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.573 | 1.060 | | | .000 | | | |
| 1 | | 2020 | MC (†) | 6.765 | .000 | 6.765 | - | - | - | - | - | .556 | .556 | .556 | .556 | .556 | .563 | .571 | .571 | .570 | .570 | .570 | .570 | | | | | | | .000 | | | | |
| 1 | | 2020 | Total | 25.128 | .000 | 25.128 | - | - | - | - | - | 2.129 | 2.129 | 2.129 | 2.129 | 2.129 | 2.136 | 2.144 | 2.144 | 2.143 | 2.143 | 2.143 | 1.630 | - | - | - | - | - | - | .000 | | | | |
| 1 | | 2021 | ARMY | 25.154 | .000 | 25.154 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.096 | 2.096 | 2.096 | 2.096 | 2.096 | 2.096 | 2.096 | 10.482 |
| 1 | | 2021 | MC (†) | 5.003 | .000 | 5.003 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .400 | .400 | .400 | .403 | .425 | .425 | .425 | 2.125 |
| 1 | | 2021 | Total | 30.157 | .000 | 30.157 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.496 | 2.496 | 2.496 | 2.499 | 2.521 | 2.521 | 2.521 | 12.607 |
| 1 | | 2022 | ARMY | 5.427 | .000 | 5.427 | | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.427 | |
| 1 | | 2022 | MC (†) | 3.955 | .000 | 3.955 | | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.955 | |
| 1 | | 2022 | Total | 9.382 | .000 | 9.382 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9.382 |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | Item Number / Title [DODIC]: E99250 / FUZE, 155mm ARTY Precision Guidance Kit (PGK) [NA29] | | | | | | | | | |

| Cost Elements (Units in Thousands) | | | | | Fiscal Year 2024 | | | | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | | | | BALANCE | | |
|---------------------------------------|---------|-------------|--------------|---------------|----------------------------|---------------------|--------------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|--------------------|-------------|-------|-------|-------|-------|-------|-------|-------|---|---|---|-------------|-------------|------|--|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |
| | | | | | | | COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 70463 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2020 | ARMY | 18.363 | 18.363 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | | 2020 | MC (†) | 6.765 | 6.765 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | | 2020 | Total | 25.128 | 25.128 | .000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | |
| 1 | | 2021 | ARMY | 25.154 | 14.672 | 10.482 | 2.096 | 2.096 | 2.097 | 2.097 | 2.096 | | | | | | | | | | | | | | | | | | | | | | | | .000 | | |
| 1 | | 2021 | MC (†) | 5.003 | 2.878 | 2.125 | .425 | .425 | .425 | .425 | .425 | | | | | | | | | | | | | | | | | | | | | | | | .000 | | |
| 1 | | 2021 | Total | 30.157 | 17.550 | 12.607 | 2.521 | 2.521 | 2.522 | 2.522 | 2.521 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | | |
| 1 | | 2022 | ARMY | 5.427 | .000 | 5.427 | - | - | - | - | - | .452 | .452 | .452 | .452 | .452 | .452 | .452 | .452 | .452 | .452 | .453 | .453 | .453 | | | | | | | | | | | .000 | | |
| 1 | | 2022 | MC (†) | 3.955 | .000 | 3.955 | - | - | - | - | - | .329 | .329 | .329 | .329 | .330 | .330 | .329 | .330 | .330 | .330 | .330 | .330 | .330 | | | | | | | | | | | .000 | | |
| 1 | | 2022 | Total | 9.382 | .000 | 9.382 | - | - | - | - | - | .781 | .781 | .781 | .781 | .782 | .782 | .781 | .782 | .782 | .783 | .783 | .783 | - | - | - | - | - | - | - | - | - | - | .000 | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|--|---------------------------------|----------------|--|-------------------------------|-----------------|-------------------|--|--------------------|-----------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | Item Number / Title [DODIC]: E99250 / FUZE, 155mm ARTY Precision Guidance Kit (PGK) [NA29] | | | | |
| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | NORTHROP GRUMMAN INNOVATION - PLYMOUTH, MN | 333 | 1,100 | 2,500 | 13 | 9 | 27 | 36 | 3 | 6 | 24 | 30 |

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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|---|--|--|--|----------------|----------------|--|--------------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | Item Number / Title [DODIC]: E99251 / LONG-RANGE PRECISION GUIDANCE KIT (LR-PGK) | | |
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | | | MDAP/MAIS Code: | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | - | - | - | 24.677 | - | 24.677 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | - | - | - | 24.677 | - | 24.677 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | - | - | - | 24.677 | - | 24.677 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | - | - | - | - | - | - | - | 63,946.50 | 270 | 17.266 | - | - | - | 63,946.50 | 270 | 17.266 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 17.266 | - | - | - | - | - | 17.266 |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Test Hardware | - | - | - | - | - | - | - | - | - | - | - | 3.200 | - | - | - | - | - | 3.200 |
| <i>Subtotal: Non Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 3.200 | - | - | - | - | - | 3.200 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 20.466 | - | - | - | - | - | 20.466 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | - | - | - | - | - | - | 0.300 | - | - | - | - | - | 0.300 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.300 | - | - | - | - | - | 0.300 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 2.230 | - | - | - | - | - | 2.230 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 2.230 | - | - | - | - | - | 2.230 |
| Support - Support Equipment Cost | | | | | | | | | | | | | | | | | | |
| Test and Measurement Equipment | - | - | - | - | - | - | - | - | - | - | - | 0.781 | - | - | - | - | - | 0.781 |
| <i>Subtotal: Support - Support Equipment Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.781 | - | - | - | - | - | 0.781 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | Item Number / Title [DODIC]: E99251 / LONG-RANGE PRECISION GUIDANCE KIT (LR-PGK) |
| ID Code (A=Service Ready, B=Not Service Ready) : | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Support - System Engineering Cost | | | | | | | | | | | | | | | | | | |
| Weapons Fire Control | - | - | - | - | - | - | - | - | - | - | - | 0.900 | - | - | - | - | - | 0.900 |
| <i>Subtotal: Support - System Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.900 | - | - | - | - | - | 0.900 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 24.677 | - | - | - | - | - | 24.677 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|--|--------------------------------------|--------------------------|---------------|--|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | Item Number / Title [DODIC]: E99251 / LONG-RANGE PRECISION GUIDANCE KIT (LR-PGK) | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND ^(†) | | 2022 | BAE SYSTEM INFORMATION & / HUDSON, NH | Option / CPFF | PICATINNY ARSENAL, NJ | Dec 2021 | Jul 2023 | 270 | 63,946.50 | Y | Feb 2021 | Mar 2021 |

^(†) indicates the presence of a P-21

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | Item Number / Title [DODIC]: E99251 / LONG-RANGE PRECISION GUIDANCE KIT (LR-PGK) | | | | | | | | | |

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | B A L A N C E | |
|---|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |

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|----------------|------|------|--|-----|---|-----|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----|-----|
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | ARMY | | 270 | 0 | 270 | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 30 | 60 | 60 | 120 |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | Item Number / Title [DODIC]: E99251 / LONG-RANGE PRECISION GUIDANCE KIT (LR-PGK) | | | | | | | | | |

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2024 | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | B A L A N C E | |
|---|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | | M A Y |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|------|------|--|-----|-----|-----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|
| COMPLETE ROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | | | |
| 1 | 2022 | ARMY | | 270 | 150 | 120 | 60 | 60 | | | | | | | | | | | | | | | | | | | | | | | | | |

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|--|--|--|--|--|--|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |
|--|--|--|--|--|--|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|---------------------------------------|---------------------------------|----------------|--|-------------------------------|-----------------|-------------------|--|--------------------|-----------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | Item Number / Title [DODIC]: E99251 / LONG-RANGE PRECISION GUIDANCE KIT (LR-PGK) | | | | |
| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | BAE SYSTEM INFORMATION & - HUDSON, NH | 25 | 60 | 60 | 6 | 3 | 19 | 22 | 6 | 6 | 24 | 30 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | Item Number / Title [DODIC]: E99350 / 155mm Artillery Supercharge XM654 |

| | | | | | | | |
|---|--|--------------------|----------------|------------------------|---------------------|--------------------|----------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (<i>Units in Each</i>) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | | - | - | - | 3.151 | - | 3.151 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | | - | - | - | 3.151 | - | 3.151 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | | - | - | - | 3.151 | - | 3.151 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | - | - | - | - | - | - | - | 2,330.00 | 1,016 | 2.367 | - | - | - | 2,330.00 | 1,016 | 2.367 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 2.367 | - | - | - | - | - | 2.367 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 2.367 | - | - | - | - | - | 2.367 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | - | - | - | - | - | - | 0.297 | - | - | - | - | - | 0.297 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.297 | - | - | - | - | - | 0.297 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.487 | - | - | - | - | - | 0.487 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.487 | - | - | - | - | - | 0.487 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 3.151 | - | - | - | - | - | 3.151 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|--|--------------------------------------|--------------------------|---------------|---|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | Item Number / Title [DODIC]: E99350 / 155mm Artillery Supercharge XM654 | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND | | 2022 | GD MARION / MARION, IL | SS / CPFF | PICATINNY ARSENAL, NJ | Aug 2022 | Jul 2023 | 1,016 | 2,330.00 | Y | | |

Remarks:
 Supercharge Bag Total Quantity 1,016 with Delivery Schedule:
 July 2023: 250; August 2023: 250; September 2023: 250; October 2023: 266

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | Item Number / Title [DODIC]: E99360 / 155mm Artillery Stubcharge XM659 |

| | | | | | | | |
|---|--|--------------------|----------------|------------------------|---------------------|--------------------|----------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | - | - | - | 5.291 | - | 5.291 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | - | - | - | 5.291 | - | 5.291 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | - | - | - | 5.291 | - | 5.291 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| STUB CHARGE TRAINING ^(t) | - | - | - | - | - | - | - | - | - | 916.00 | 1,900 | 1.740 | - | - | - | 916.00 | 1,900 | 1.740 |
| STUB CHARGE TACTICAL ^(t) | - | - | - | - | - | - | - | - | - | 1,754.00 | 1,400 | 2.456 | - | - | - | 1,754.00 | 1,400 | 2.456 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 4.196 | - | - | - | - | - | 4.196 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 4.196 | - | - | - | - | - | 4.196 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | - | - | - | - | - | - | 0.200 | - | - | - | - | - | 0.200 |
| First Article Test | - | - | - | - | - | - | - | - | - | - | - | 0.100 | - | - | - | - | - | 0.100 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.300 | - | - | - | - | - | 0.300 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.795 | - | - | - | - | - | 0.795 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.795 | - | - | - | - | - | 0.795 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 5.291 | - | - | - | - | - | 5.291 |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|--|--------------------------------------|--------------------------|---------------|------------------------------|--|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | Item Number / Title [DODIC]: E99360 / 155mm Artillery Stubcharge XM659 | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| STUB CHARGE TRAINING | | 2022 | GENERAL DYNAMICS MARION / MARION, IL. | SS / CPFF | PICATINNY ARSENAL, NJ | Aug 2022 | Mar 2023 | 1,900 | 916.00 | N | Aug 2021 | |
| STUB CHARGE TACTICAL | | 2022 | GENERAL DYNAMICS MARION / MARION, IL. | SS / CPFF | PICATINNY ARSENAL, NJ | Aug 2022 | Nov 2023 | 1,400 | 1,754.00 | N | Aug 2021 | |

Remarks:
 Stub Charge Training Variant (Quantity 1,900) Delivery Schedule:
 March 2023: 500; April 2023: 500; May 2023: 500; June 2023: 400
 Stub Charge Tactical Variant (Quantity 1,400) Delivery Schedule:
 Nov 2023: 500; December 2023: 500; January 2024: 400

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | Item Number / Title [DODIC]: E99909 / Multi-Option Fuze, Artillery M782 [NA09] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|----------|----------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 10.000 | - | - | 13.653 | - | 13.653 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 10.000 | - | - | 13.653 | - | 13.653 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 10.000 | - | - | 13.653 | - | 13.653 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round ^(†) | - | - | 10.000 | - | - | - | - | - | - | 1,368.84 | 8,118 | 11.112 | - | - | - | 1,368.84 | 8,118 | 11.112 |
| Subtotal: Recurring Cost | - | - | 10.000 | - | - | - | - | - | - | - | - | 11.112 | - | - | - | - | - | 11.112 |
| Subtotal: Hardware Cost | - | - | 10.000 | - | - | - | - | - | - | - | - | 11.112 | - | - | - | - | - | 11.112 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | - | - | - | - | - | - | 0.313 | - | - | - | - | - | 0.313 |
| First Article Test | - | - | - | - | - | - | - | - | - | - | - | 1.000 | - | - | - | - | - | 1.000 |
| Subtotal: Support - Acceptance Testing Cost | - | - | - | - | - | - | - | - | - | - | - | 1.313 | - | - | - | - | - | 1.313 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 1.227 | - | - | - | - | - | 1.227 |
| Subtotal: Support - Production Engineering Cost | - | - | - | - | - | - | - | - | - | - | - | 1.227 | - | - | - | - | - | 1.227 |
| Gross/Weapon System Cost | - | - | 10.000 | - | - | - | - | - | - | - | - | 13.653 | - | - | - | - | - | 13.653 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|--|--------------------------------------|--------------------------|---------------|--|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | Item Number / Title [DODIC]: E99909 / Multi-Option Fuze, Artillery M782 [NA09] | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| Complete Round ^(†) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | Mar 2022 | Jun 2024 | 8,118 | 1,368.84 | Y | | |

^(†) indicates the presence of a P-21

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | Item Number / Title [DODIC]: E99909 / Multi-Option Fuze, Artillery M782 [NA09] | | | | | | | | | |

| Cost Elements (Units in Each) | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | B A L A N C E | |
|----------------------------------|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|---------------------------------|--|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|------|------|--|-------|---|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|
| Complete Round | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | ARMY | | 8,118 | 0 | 8,118 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8,118 |

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

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|---|--|--|--|--|--|---|--|--|--|--|--|--|----------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | | | Item Number / Title [DODIC]: E99909 / Multi-Option Fuze, Artillery M782 [NA09] | | | | | | | | | | | |

| Cost Elements (Units in Each) | | | | | | Fiscal Year 2024 | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | BALANCE | |
|----------------------------------|---------|----|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|------|------|-------|---|-------|---|---|---|---|---|---|---|---|-------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Complete Round | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | ARMY | 8,118 | 0 | 8,118 | - | - | - | - | - | - | - | - | 4,059 | 4,059 | | | | | | | | | | | | | | | | 0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |
|--|--|--|--|--|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All |
| | | Item Number / Title [DODIC]: E99909 / Multi-Option Fuze, Artillery M782 [NA09] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | TO BE SELECTED - TBS01 | 1,000 | 8,000 | 12,000 | 6 | 6 | 24 | 30 | 6 | 6 | 27 | 33 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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|---|--|--|--|----------------|----------------|--|--------------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | Item Number / Title [DODIC]: ER8021 / PROP CHG, 155mm ARTY MACS, M232 Series [DA67] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 643.474 | 76.277 | 67.131 | 36.030 | - | 36.030 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 643.474 | 76.277 | 67.131 | 36.030 | - | 36.030 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 643.474 | 76.277 | 67.131 | 36.030 | - | 36.030 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | - | - | 643.474 | 36.38 | 380,157 | 13.830 | 36.49 | 304,591 | 11.115 | 40.32 | 156,192 | 6.298 | - | - | - | 40.32 | 156,192 | 6.298 |
| PROPELLANT, M31A2 ^(†) | - | - | - | 19.76 | 1,890,831 | 37.363 | 20.62 | 1,468,129 | 30.273 | 21.03 | 752,845 | 15.832 | - | - | - | 21.03 | 752,845 | 15.832 |
| CONTAINER, M232A1 ^(†) | - | - | - | 44.00 | 80,730 | 3.552 | 78.72 | 63,964 | 5.035 | 80.29 | 32,800 | 2.634 | - | - | - | 80.29 | 32,800 | 2.634 |
| CTG CASE COMBUSTIBLE F/155MM M ^(†) | - | - | - | 44.15 | 382,360 | 16.881 | 53.58 | 313,729 | 16.810 | 56.69 | 160,877 | 9.120 | - | - | - | 56.69 | 160,877 | 9.120 |
| IGNITION PROPELLANT, MACS ^(†) | - | - | - | 10.83 | 25,317 | 0.274 | 11.05 | 19,798 | 0.219 | 11.27 | 10,152 | 0.114 | - | - | - | 11.27 | 10,152 | 0.114 |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>643.474</i> | - | - | <i>71.900</i> | - | - | <i>63.451</i> | - | - | <i>33.998</i> | - | - | - | - | - | <i>33.998</i> |
| <i>Subtotal: Hardware Cost</i> | - | - | <i>643.474</i> | - | - | <i>71.900</i> | - | - | <i>63.451</i> | - | - | <i>33.998</i> | - | - | - | - | - | <i>33.998</i> |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | 0.750 | - | - | 0.450 | - | - | 0.245 | - | - | - | - | - | 0.245 |
| First Article Test | - | - | - | - | - | 0.138 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | <i>0.888</i> | - | - | <i>0.450</i> | - | - | <i>0.245</i> | - | - | - | - | - | <i>0.245</i> |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | Item Number / Title [DODIC]: ER8021 / PROP CHG, 155mm ARTY MACS, M232 Series [DA67] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Production Engineering | - | - | - | - | - | 3.488 | - | - | 3.230 | - | - | 1.787 | - | - | - | - | - | 1.787 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | 3.488 | - | - | 3.230 | - | - | 1.787 | - | - | - | - | - | 1.787 |
| Gross/Weapon System Cost | - | - | 643.474 | - | - | 76.277 | - | - | 67.131 | - | - | 36.030 | - | - | - | - | - | 36.030 |

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2022 Army **Date:** May 2021

| | | |
|--|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | Item Number / Title [DODIC]: ER8021 / PROP CHG, 155mm ARTY MACS, M232 Series [DA67] |
|--|--|--|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|--|--------------------------------------|-----------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2020 | AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA | C / IDIQ | PICATINNY ARSENAL, NJ | May 2020 | May 2022 | 380,157 | 36.38 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2021 | TO BE SELECTED / TBS01 | Option / IDIQ | PICATINNY ARSENAL, NJ | Apr 2021 | Apr 2023 | 304,591 | 36.49 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2022 | TO BE SELECTED / TBS01 | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2024 | 156,192 | 40.32 | Y | | |
| PROPELLANT, M31A2 | | 2020 | GEN DYNAMICS ORDNANCE AND / SALABERRY-DE-VALLEYFIELD, CANADA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2020 | Nov 2021 | 1,890,831 | 19.76 | Y | | |
| PROPELLANT, M31A2 | | 2021 | GEN DYNAMICS ORDNANCE AND / SALABERRY-DE-VALLEYFIELD, CANADA | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Aug 2022 | 1,468,129 | 20.62 | Y | | |
| PROPELLANT, M31A2 | | 2022 | GEN DYNAMICS ORDNANCE AND / SALABERRY-DE-VALLEYFIELD, CANADA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Nov 2023 | 752,845 | 21.03 | Y | | |
| CONTAINER, M232A1 | | 2020 | DELFASCO LLC / AFTON, TN | C / IDIQ | PICATINNY ARSENAL, NJ | Apr 2020 | Apr 2021 | 80,730 | 44.00 | Y | | |
| CONTAINER, M232A1 | | 2021 | TO BE SELECTED / TBS01 | Option / IDIQ | PICATINNY ARSENAL, NJ | Apr 2021 | Apr 2022 | 63,964 | 78.72 | Y | | |
| CONTAINER, M232A1 | | 2022 | TO BE SELECTED / TBS01 | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2023 | 32,800 | 80.29 | Y | | |
| CTG CASE COMBUSTIBLE F/155MM M | | 2020 | ARMTEC DEFENSE PRODUCTS CO / COACHELLA, CA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2020 | Mar 2021 | 382,360 | 44.15 | Y | | |
| CTG CASE COMBUSTIBLE F/155MM M | | 2021 | ARMTEC DEFENSE PRODUCTS CO / COACHELLA, CA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2021 | Mar 2022 | 313,729 | 53.58 | Y | | |
| CTG CASE COMBUSTIBLE F/155MM M | | 2022 | ARMTEC DEFENSE PRODUCTS CO / COACHELLA, CA | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2023 | 160,877 | 56.69 | Y | | |
| IGNITION PROPELLANT, MACS | | 2020 | ST. MARKS POWDER INC. / CRAWFORDVILLE, FL | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2019 | Dec 2020 | 25,317 | 10.83 | Y | | |
| IGNITION PROPELLANT, MACS | | 2021 | ST. MARKS POWDER INC. / CRAWFORDVILLE, FL | Option / IDIQ | PICATINNY ARSENAL, NJ | Dec 2020 | Dec 2021 | 19,798 | 11.05 | Y | | |
| IGNITION PROPELLANT, MACS | | 2022 | ST. MARKS POWDER INC. / CRAWFORDVILLE, FL | Option / IDIQ | PICATINNY ARSENAL, NJ | Mar 2022 | Mar 2023 | 10,152 | 11.27 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
 MACS Load Assemble & Pack Contract is an awarded IDIQ (FY2019) that is competed with two qualified suppliers, AO Iowa Middletown, IA and GD Canada.
 MACS Containers is an awarded IDIQ (FY2020) that is competed with two qualified suppliers, CONCO Louisville, KY and Delfasco Greeneville, TN

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | Date: May 2021 | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | Item Number / Title [DODIC]: ER8021 / PROP CHG, 155mm ARTY MACS, M232 Series [DA67] | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | BALANCE | |
|--|----------|-------------|-------------------|----------------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|--|---------|--|
| O C O # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 380.157 | .000 | 380.157 | | | | | | | | | | | | | | | | | | | | | | | | 380.157 | | | |
| | 1 | 2020 | MC ^(†) | 30.450 | .000 | 30.450 | | | | | | | | | | | | | | | | | | | | | | | | 30.450 | | | |
| | 1 | 2020 | Total | 410.607 | .000 | 410.607 | | | | | | | | | | | | | | | | | | | | | | | | 410.607 | | | |
| | 2 | 2021 | ARMY | 304.591 | .000 | 304.591 | | | | | | | | | | | | | | | | | | | | | | | | 304.591 | | | |
| | 2 | 2022 | ARMY | 156.192 | .000 | 156.192 | | | | | | | | | | | | | | | | | | | | | | | | 156.192 | | | |
| | 2 | 2022 | MC ^(†) | 120.762 | .000 | 120.762 | | | | | | | | | | | | | | | | | | | | | | | | 120.762 | | | |
| | 2 | 2022 | Total | 276.954 | .000 | 276.954 | | | | | | | | | | | | | | | | | | | | | | | | 276.954 | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | Item Number / Title [DODIC]: ER8021 / PROP CHG, 155mm ARTY MACS, M232 Series [DA67] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | B A L A N C E | | |
|--|------------------|-------------|--------------|----------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|---------------|---------------|------------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|-------------|--------|--------|--------|---------------------------------|---------|----------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 380.157 | .000 | 380.157 | - | - | - | - | - | - | - | - | - | - | 29.950 | 34.550 | 35.000 | 35.000 | 40.000 | 40.000 | 40.000 | 40.000 | 40.000 | 40.000 | 40.000 | 40.000 | 5.657 | | | .000 | | | | |
| | 1 | 2020 | MC (†) | 30.450 | .000 | 30.450 | - | - | - | - | - | - | - | - | - | - | 20.050 | 10.400 | - | - | - | - | - | - | - | - | - | - | - | - | - | | .000 | | | |
| | 1 | 2020 | Total | 410.607 | .000 | 410.607 | - | - | - | - | - | - | - | - | - | - | 50.000 | 44.950 | 35.000 | 35.000 | 40.000 | 40.000 | 40.000 | 40.000 | 40.000 | 40.000 | 40.000 | 40.000 | 5.657 | - | - | - | - | .000 | | |
| | 2 | 2021 | ARMY | 304.591 | .000 | 304.591 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 25.388 | 25.388 | 25.388 | 25.388 | 25.388 | 25.388 | 152.263 |
| | 2 | 2022 | ARMY | 156.192 | .000 | 156.192 | | | | | | | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 156.192 | |
| | 2 | 2022 | MC (†) | 120.762 | .000 | 120.762 | | | | | | | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 120.762 |
| | 2 | 2022 | Total | 276.954 | .000 | 276.954 | | | | | | | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 276.954 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | | | | | | | | | | | | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All | | | | | | | | | | | | | | Item Number / Title [DODIC]: ER8021 / PROP CHG, 155mm ARTY MACS, M232 Series [DA67] | | | | | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2024 | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | B A L A N C E | | |
|--|------------------|-------------|--------------|----------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|---------------|---------------|---------------|---------------|---------------|------------------|---------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | | A U G | S E P |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 380.157 | 380.157 | .000 | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 1 | 2020 | MC (†) | 30.450 | 30.450 | .000 | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 1 | 2020 | Total | 410.607 | 410.607 | .000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | |
| | 2 | 2021 | ARMY | 304.591 | 152.328 | 152.263 | 25.388 | 25.388 | 25.388 | 25.388 | 25.393 | 25.318 | | | | | | | | | | | | | | | | | .000 | | |
| | 2 | 2022 | ARMY | 156.192 | .000 | 156.192 | - | - | - | - | - | 12.112 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 19.080 | | | | | | | | | | | | .000 | |
| | 2 | 2022 | MC (†) | 120.762 | .000 | 120.762 | - | - | - | - | - | 12.500 | 25.000 | 25.000 | 25.000 | 20.762 | 12.500 | - | | | | | | | | | | | | .000 | |
| | 2 | 2022 | Total | 276.954 | .000 | 276.954 | - | - | - | - | - | 24.612 | 50.000 | 50.000 | 50.000 | 45.762 | 37.500 | 19.080 | - | - | - | - | - | - | - | - | - | - | - | .000 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37 | | P-1 Line Item Number / Title: 8750E27501 / Artillery Propellants, Fuzes and Primers, All |
| | | Item Number / Title [DODIC]: ER8021 / PROP CHG, 155mm ARTY MACS, M232 Series [DA67] |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|---|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | AMERICAN ORDNANCE LLC (IAAP) - MIDDLETOWN, IA | 30,000 | 50,000 | 125,000 | 6 | 6 | 24 | 30 | 6 | 6 | 24 | 30 |
| 2 | TO BE SELECTED - TBS01 | 30,000 | 50,000 | 125,000 | 6 | 6 | 24 | 30 | 6 | 6 | 24 | 30 |

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 43: Mines **P-1 Line Item Number / Title:** 0442EA0800 / Mines & Clearing Charges, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|---------------|---------------|---------------|-------------|---------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 346.222 | 39.239 | 48.966 | 25.980 | - | 25.980 | - | - | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 346.222 | 39.239 | 48.966 | 25.980 | - | 25.980 | - | - | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 346.222 | 39.239 | 48.966 | 25.980 | - | 25.980 | - | - | - | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | | |
| Initial Spares (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (\$ in Dollars) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes Mines and Mine Clearing Charges, All Types.

(E72194) The M88 Practice Mine canister contains an explosive charge and six Inert weighted simulants providing similar effects to the M87 & M87A1 tactical canisters. The use of four M88 canisters in the four corners of the M139 Volcano System provide Warfighters the live fire effect by expelling the six dumb mines marking the start and end of a training mine field. The M88 when fired expels the six inert simulants at the same distance and distributions of density to represent similar emplacement of a tactical obstacle field. The M88 canisters are a onetime use class V ammo item. The M88 canisters support the Army's modernization priorities of the National Defense Strategy. This item is Code A, approved for service use.

(E72800) MK7 Mod2 The Anti-Personnel Obstacle Breaching System (APOBS) is used by dismounted troops in combat operations to clear a lane through wire obstacles and anti-personnel mines. This item is a lightweight, self-contained, 1 shot expendable system that is transported and deployed by a 2 man team. It consists of a line charge/fuze assembly and a rocket motor assembly. APOBS uses the EX126 Mod 0 rocket motor to propel a line charge over the obstacle. The line is then exploded, clearing a lane. The APOBS System is being actively used in Combat Engineering Operations. This item is Code A, approved for service use.

(E75101) Mine Clearing Line Charge M58 Series (MICLEIC) is a rocket propelled explosive line charge mounted on a standard military trailer. The line charge is propelled over the minefield by the rocket and detonated, clearing a one vehicle wide lane 100 meter long, 8 meters wide. The MICLEIC is effective against single pulse, pressure fuzed mines. The line charge does not defeat blast hardened or complex fused mines. The M58 is being actively used in Combat Engineering Operations. This item is Code A, approved for service use.

(E75102) Line Charge Inert M68A2 F/MICLEIC is the training ammunition for the M58 Linear Demolition Charge. It is identical to the M58 except all explosive components have been replaced with non-explosive components of identical weight. It can be recovered after deployment by the MK22 MOD4 rocket and used up to three times. This item is Code A, approved for service use.

(E76900) The MK22 MOD4 rocket is used to deploy the M58 Linear Demolition Charge or the M68A2 Inert Line Charge over a target obstacle. One rocket is used with each M58 and up to 3 can be used with each M68A2. This item is Code A, approved for service use.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 43: Mines **P-1 Line Item Number / Title:** 0442EA0800 / Mines & Clearing Charges, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E72194 / MINE, Practice, M88 (VOLCANO) [K042] | P-5a | A | | - / 22.215 | - / 1.385 | - / 3.968 | - / 4.965 | - / - | - / 4.965 |
| P-5 | E72800 / Anti-Pers Obstacle Breachng Sys(APOBS), MK7 w/Mods [MN79] | P-5a, P-21 | A | | - / 101.539 | - / 10.000 | - / 23.975 | - / 14.239 | - / - | - / 14.239 |
| P-5 | E75101 / Line Charge, M58 Series Mine Clearing f/MICLIC [M913] | | A | | - / 129.275 | - / - | - / - | - / 1.323 | - / - | - / 1.323 |
| P-5 | E75102 / LINE CHARGE INERT M68A2 F/MICLIC [M914] | P-5a | A | | - / 35.903 | - / 9.564 | - / 7.479 | - / 5.453 | - / - | - / 5.453 |
| P-5 | E76900 / ROCKET, Motor 5 in, MK22 MOD 4 f/MICLIC [J143] | P-5a | A | | - / 57.290 | - / 18.290 | - / 13.544 | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 346.222 | - / 39.239 | - / 48.966 | - / 25.980 | - / - | - / 25.980 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The FY 2022 Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

The FY 2022 Total Base dollars in the amount of \$25.980 million supports the procurement of 4 variants of Mines and Mine Clearing Charges.

(E72194) Practice M88 Volcano

This is a training standard item used in functional training and combat. The FY 2022 request supports annual training and builds a reserve to support out year training in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$4.965 million supports the production of 693 Volcanos.

Type Classification Date: 1989

(E72800) Anti-Personnel Obstacle Breaching Sys (APOBS), MK7 w/Mods

This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$14.239 million supports the procurement of 939 APOBS. Rocket Motor Grains and PBXN-10 explosive are provided as GFM. NSWIC Indian Head produces rocket motor grains. PBXN-10 is currently sourced from Holston AAP. The sole NTIB source for N-5 propellant used in rocket motor grain production is Radford AAP.

Type Classification Date: 2001

(E75101) Mine Clearing Line Charge M58 Series (MICLIC)

This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$1.323 million supports the procurement of 16 MICLICs. This is a new start in FY2022. LAP is conducted by American Ordnance at Iowa AAP. C4 explosive is provided as GFM and sourced from Holston AAP.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 43: Mines | | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| Type Classification Date: 1985 | | |
| <p>(E75102) Line Charge Inert M68A2 F/MICLIC This is a training standard item used in training. FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$5.453 million supports the procurement of 78 MICLIC Inert items. In FY 2022, funding in the amount of \$0.113 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments. LAP is conducted by American Ordnance at Iowa AAP. Type Classification Date: 1985</p> | | |
| <p>(E76900) MICLIC 5 In Rocket Motor MK 22 MOD 4 This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. E76900 has no FY2022 funding request. LAP is conducted by NSWC Indian Head which lets direct cite funded contracts for subcomponents. The sole NTIB source for N-5 propellant is Radford AAP. Type Classification Date: 1985</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | Item Number / Title [DODIC]: E72194 / MINE, Practice, M88 (VOLCANO) [K042] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 22.215 | 1.385 | 3.968 | 4.965 | - | 4.965 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 22.215 | 1.385 | 3.968 | 4.965 | - | 4.965 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 22.215 | 1.385 | 3.968 | 4.965 | - | 4.965 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | - | - | - | - | 5,562.00 | 521 | 2.898 | 5,562.00 | 693 | 3.854 | - | - | - | 5,562.00 | 693 | 3.854 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | 2.898 | - | - | 3.854 | - | - | - | - | - | 3.854 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | 2.898 | - | - | 3.854 | - | - | - | - | - | 3.854 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 22.215 | - | - | 1.385 | - | - | 1.070 | - | - | 1.111 | - | - | - | - | - | 1.111 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 22.215 | - | - | 1.385 | - | - | 1.070 | - | - | 1.111 | - | - | - | - | - | 1.111 |
| Gross/Weapon System Cost | - | - | 22.215 | - | - | 1.385 | - | - | 3.968 | - | - | 4.965 | - | - | - | - | - | 4.965 |

^(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|--|--------------------------------------|--------------------------|---------------|------------------------------|--|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | | | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | | | | | Item Number / Title [DODIC]: E72194 / MINE, Practice, M88 (VOLCANO) [K042] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND | | 2021 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | Feb 2022 | May 2023 | 521 | 5,562.00 | Y | | |
| COMPLETE ROUND | | 2022 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | Feb 2022 | May 2023 | 693 | 5,562.00 | Y | | |

Remarks:
The delay in M88 Volcano is due to a change in strategy from a consolidated Volcano buy to accommodate for potential FMS. No countries have come in with funding for the M87A1 version, so the M87A1 was removed from the acquisition strategy and procurement is going forward to include only the M88.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types |
| | | Item Number / Title [DODIC]: E72800 / Anti-Pers Obstacle Breachng Sys(APOBS), MK7 w/Mods [MN79] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | | |
|---|--|--|----------------|------------------------|---------------|---------------|-------------|---------------|
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 101.539 | 10.000 | 23.975 | 14.239 | - | 14.239 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 101.539 | 10.000 | 23.975 | 14.239 | - | 14.239 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 101.539 | 10.000 | 23.975 | 14.239 | - | 14.239 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 107,987.22 | 912 | 98.484 | - | - | - | 11,284.24 | 1,735 | 19.578 | 11,663.89 | 939 | 10.952 | - | - | - | 11,663.89 | 939 | 10.952 |
| PBXN-10 TYPE 2 ^(†) | 27.97 | 2,280 | 0.064 | - | - | - | 29.33 | 4,338 | 0.127 | 28.22 | 2,817 | 0.079 | - | - | - | 28.22 | 2,817 | 0.079 |
| PBXN-10 TYPE 1 ^(†) | 20.26 | 45,600 | 0.924 | - | - | - | 21.24 | 86,750 | 1.843 | 27.18 | 51,645 | 1.404 | - | - | - | 27.18 | 51,645 | 1.404 |
| PROPELLANT GRAIN (ROCKET) ^(†) | 553.58 | 1,003 | 0.555 | - | - | - | 537.46 | 1,909 | 1.026 | 548.20 | 1,174 | 0.644 | - | - | - | 548.20 | 1,174 | 0.644 |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>100.027</i> | - | - | - | - | - | <i>22.574</i> | - | - | <i>13.079</i> | - | - | - | - | - | <i>13.079</i> |
| <i>Subtotal: Hardware Cost</i> | - | - | <i>100.027</i> | - | - | - | - | - | <i>22.574</i> | - | - | <i>13.079</i> | - | - | - | - | - | <i>13.079</i> |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.487 | - | - | - | - | - | 1.395 | - | - | 1.154 | - | - | - | - | - | 1.154 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | <i>1.487</i> | - | - | - | - | - | <i>1.395</i> | - | - | <i>1.154</i> | - | - | - | - | - | <i>1.154</i> |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.025 | - | - | 10.000 | - | - | 0.006 | - | - | 0.006 | - | - | - | - | - | 0.006 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | <i>0.025</i> | - | - | <i>10.000</i> | - | - | <i>0.006</i> | - | - | <i>0.006</i> | - | - | - | - | - | <i>0.006</i> |
| Gross/Weapon System Cost | - | - | 101.539 | - | - | 10.000 | - | - | 23.975 | - | - | 14.239 | - | - | - | - | - | 14.239 |

Remarks:

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | Item Number / Title [DODIC]: E72800 / Anti-Pers Obstacle Breachng Sys(APOBS), MK7 w/Mods [MN79] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |
| <p>FY 2020 APOBs was marked and the request zeroed out upon enactment. FY 2020 \$10M will not be executed on APOBS E72800. Due to a technical error, the \$10M is intended for E75102 and would support procurement of approximately 163 MICLICs</p> <p>(t) indicates the presence of a P-5a</p> | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | | | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | | | | Item Number / Title [DODIC]: E72800 / Anti-Pers Obstacle Breachng Sys(APOBS), MK7 w/Mods [MN79] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|-------------------------|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Nov 2022 | 1,735 | 11,284.24 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Sep 2023 | 939 | 11,663.89 | Y | | |
| PBXN-10 TYPE 2 | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Sep 2022 | 4,338 | 29.33 | Y | | |
| PBXN-10 TYPE 2 | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Jul 2023 | 2,817 | 28.22 | Y | | |
| PBXN-10 TYPE 1 | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Sep 2022 | 86,750 | 21.24 | Y | | |
| PBXN-10 TYPE 1 | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Jul 2023 | 51,645 | 27.18 | Y | | |
| PROPELLANT GRAIN (ROCKET) | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Oct 2022 | 1,909 | 537.46 | Y | | |
| PROPELLANT GRAIN (ROCKET) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Aug 2023 | 1,174 | 548.20 | Y | | |

^(†) indicates the presence of a P-21

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | | | | | | | | | | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | | | | | | | | | | Item Number / Title [DODIC]: E72800 / Anti-Pers Obstacle Breachng Sys(APOBS), MK7 w/Mods [MN79] | | | | | | | | | |

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | B A L A N C E | |
|---|------------------|------|--------------|--------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|--|--|--|---------------------------------|--|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2020 | BAL DUE AS OF 1 OCT | Calendar Year 2021 | | | | | | | | | | | | | | Calendar Year 2022 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 912 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2021 | ARMY | 1,735 | 0 | 1,735 | | | | | | | | | | | | | | | | | | | | | | | 1,735 | | | | | | |
| 1 | | 2021 | MC (†) | 493 | 0 | 493 | | | | | | | | | | | | | | | | | | | | | | | 493 | | | | | | |
| 1 | | 2021 | Total | 2,228 | 0 | 2,228 | | | | | | | | | | | | | | | | | | | | | | | 2,228 | | | | | | |
| 1 | | 2022 | ARMY | 939 | 0 | 939 | | | | | | | | | | | | | | | | | | | | | | | 939 | | | | | | |
| 1 | | 2022 | MC (†) | 494 | 0 | 494 | | | | | | | | | | | | | | | | | | | | | | | 494 | | | | | | |
| 1 | | 2022 | Total | 1,433 | 0 | 1,433 | | | | | | | | | | | | | | | | | | | | | | | 1,433 | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | | | | | | | | | | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | | | | | | | | | | Item Number / Title [DODIC]: E72800 / Anti-Pers Obstacle Breachng Sys(APOBS), MK7 w/Mods [MN79] | | | | | | | | | | | | | |

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | Fiscal Year 2024 | | | | | | | | | | | | | | BALANCE | | |
|---|---------|------|--------------|--------------|----------------------------|---------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------------|--------------------|------------|------------|------------|------------|------------|------------|-----------|-----------|-------|---|---|---|----------|----------|---|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2022 | BAL DUE AS OF 1 OCT | Calendar Year 2023 | | | | | | | | | | | | | | Calendar Year 2024 | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 912 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2021 | ARMY | 1,735 | 0 | 1,735 | - | 144 | 144 | 144 | 144 | 144 | 144 | 144 | 144 | 144 | 144 | 151 | | | | | | | | | | | | | | | | | | 0 |
| 1 | | 2021 | MC (†) | 493 | 0 | 493 | - | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 42 | | | | | | | | | | | | | | | | | | 0 |
| 1 | | 2021 | Total | 2,228 | 0 | 2,228 | - | 185 | 185 | 185 | 185 | 185 | 185 | 185 | 185 | 185 | 185 | 193 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | |
| 1 | | 2022 | ARMY | 939 | 0 | 939 | - | - | - | - | - | - | - | - | - | - | 65 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 55 | - | | | | | 0 | |
| 1 | | 2022 | MC (†) | 494 | 0 | 494 | - | - | - | - | - | - | - | - | - | - | 65 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | | | | | 0 | |
| 1 | | 2022 | Total | 1,433 | 0 | 1,433 | - | - | - | - | - | - | - | - | - | - | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 94 | 39 | - | | | | 0 | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types |
| Item Number / Title [DODIC]: E72800 / Anti-Pers Obstacle Breachng Sys(APOBS), MK7 w/Mods [MN79] | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | TO BE SELECTED - TBS01 | 50 | 130 | 400 | 8 | 8 | 24 | 32 | 6 | 6 | 18 | 24 |

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | | | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | | | Item Number / Title [DODIC]: E75101 / Line Charge, M58 Series Mine Clearing f/MICLIC [M913] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 129.275 | - | - | 1.323 | - | 1.323 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 129.275 | - | - | 1.323 | - | 1.323 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 129.275 | - | - | 1.323 | - | 1.323 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | 26,075.75 | 4,950 | 129.075 | - | - | - | - | - | - | 27,870.52 | 16 | 0.446 | - | - | - | 27,870.52 | 16 | 0.446 |
| COMP C-4 CLASS 3 | - | - | - | - | - | - | - | - | - | 17.51 | 29,630 | 0.519 | - | - | - | 17.51 | 29,630 | 0.519 |
| FUZE, DEMOLITION KIT: M1134A4 (FOR MICLIC) | - | - | - | - | - | - | - | - | - | 6,473.78 | 16 | 0.104 | - | - | - | 6,473.78 | 16 | 0.104 |
| <i>Subtotal: Recurring Cost</i> | - | - | 129.075 | - | - | - | - | - | - | - | - | 1.068 | - | - | - | - | - | 1.068 |
| <i>Subtotal: Hardware Cost</i> | - | - | 129.075 | - | - | - | - | - | - | - | - | 1.068 | - | - | - | - | - | 1.068 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 0.200 | - | - | - | - | - | - | - | - | 0.165 | - | - | - | - | - | 0.165 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.200 | - | - | - | - | - | - | - | - | 0.165 | - | - | - | - | - | 0.165 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.087 | - | - | - | - | - | 0.087 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.087 | - | - | - | - | - | 0.087 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | - | - | - | - | - | - | 0.003 | - | - | - | - | - | 0.003 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.003 | - | - | - | - | - | 0.003 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | Item Number / Title [DODIC]: E75101 / Line Charge, M58 Series Mine Clearing f/MICLIC [M913] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--------------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Gross/Weapon System Cost | - | - | 129.275 | - | - | - | - | - | - | - | - | 1.323 | - | - | - | - | - | 1.323 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | Item Number / Title [DODIC]: E75102 / LINE CHARGE INERT M68A2 F/MICLIC [M914] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 35.903 | 9.564 | 7.479 | 5.453 | - | 5.453 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 35.903 | 9.564 | 7.479 | 5.453 | - | 5.453 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 35.903 | 9.564 | 7.479 | 5.453 | - | 5.453 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | - | 60,898.98 | 135 | 8.221 | 61,048.53 | 105 | 6.410 | 61,048.53 | 78 | 4.762 | - | - | - | 61,048.53 | 78 | 4.762 |
| Subtotal: Recurring Cost | - | - | - | - | - | 8.221 | - | - | 6.410 | - | - | 4.762 | - | - | - | - | - | 4.762 |
| Subtotal: Hardware Cost | - | - | - | - | - | 8.221 | - | - | 6.410 | - | - | 4.762 | - | - | - | - | - | 4.762 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | 0.250 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | - | - | - | 0.250 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 35.903 | - | - | 1.086 | - | - | 1.065 | - | - | 0.684 | - | - | - | - | - | 0.684 |
| Subtotal: Support - Production Engineering Cost | - | - | 35.903 | - | - | 1.086 | - | - | 1.065 | - | - | 0.684 | - | - | - | - | - | 0.684 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | 0.007 | - | - | 0.004 | - | - | 0.007 | - | - | - | - | - | 0.007 |
| Subtotal: Support - Quality Assurance Cost | - | - | - | - | - | 0.007 | - | - | 0.004 | - | - | 0.007 | - | - | - | - | - | 0.007 |
| Gross/Weapon System Cost | - | - | 35.903 | - | - | 9.564 | - | - | 7.479 | - | - | 5.453 | - | - | - | - | - | 5.453 |

(†) indicates the presence of a P-5a

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|--|--|--|--|--|--|--|---|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | | | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | | | | Item Number / Title [DODIC]: E75102 / LINE CHARGE INERT M68A2 F/MICLIC [M914] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------|-------------|------|-------------------------|--------------------------------------|-------------------------|------------|------------------------|----------------------|--------------------------|------------------|-------------------------|----------------|
| COMPLETE ROUND | | 2020 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | May 2023 | 135 | 60,898.98 | Y | | |
| COMPLETE ROUND | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | May 2023 | 105 | 61,048.53 | Y | | |
| COMPLETE ROUND | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Sep 2023 | 78 | 61,048.53 | Y | | |

Remarks:
Delay in contract award of FY20 new start program currently driven by unplanned need for certified cost/pricing data and negotiations.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | | | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | | | Item Number / Title [DODIC]: E76900 / ROCKET, Motor 5 in, MK22 MOD 4 f/MICLIC [J143] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 57.290 | 18.290 | 13.544 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 57.290 | 18.290 | 13.544 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 57.290 | 18.290 | 13.544 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | - | - | - | 18,457.12 | 890 | 16.427 | 19,209.37 | 616 | 11.833 | - | - | - | - | - | - | - | - | - |
| PROPELLANT N-5 ^(†) | - | - | - | 15.44 | 62,138 | 0.959 | 16.90 | 43,008 | 0.727 | - | - | - | - | - | - | - | - | - |
| EC INHIBITING TAPE ^(†) | - | - | - | 61.35 | 2,332 | 0.143 | 65.90 | 1,614 | 0.106 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 17.529 | - | - | 12.666 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | 17.529 | - | - | 12.666 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | 0.090 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.090 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 57.290 | - | - | 0.663 | - | - | 0.870 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 57.290 | - | - | 0.663 | - | - | 0.870 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | 0.007 | - | - | 0.008 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | - | - | - | 0.007 | - | - | 0.008 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | Item Number / Title [DODIC]: E76900 / ROCKET, Motor 5 in, MK22 MOD 4 f/MICLIC [J143] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--------------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Gross/Weapon System Cost | - | - | 57.290 | - | - | 18.290 | - | - | 13.544 | - | - | - | - | - | - | - | - | - |

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|--|--|--|--|--|--|--|---|--|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | | | P-1 Line Item Number / Title: 0442EA0800 / Mines & Clearing Charges, All Types | | | | Item Number / Title [DODIC]: E76900 / ROCKET, Motor 5 in, MK22 MOD 4 f/MICLIC [J143] | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------------------|-------------|------|-------------------------|--------------------------------------|----------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2020 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | May 2021 | May 2023 | 890 | 18,457.12 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2021 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | May 2021 | May 2023 | 616 | 19,209.37 | Y | | |
| PROPELLANT N-5 | | 2020 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Nov 2022 | 62,138 | 15.44 | Y | | |
| PROPELLANT N-5 | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Nov 2022 | 43,008 | 16.90 | Y | | |
| EC INHIBITING TAPE | | 2020 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Aug 2022 | 2,332 | 61.35 | Y | | |
| EC INHIBITING TAPE | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Aug 2022 | 1,614 | 65.90 | Y | | |

Remarks:
 The program was a new start in FY20. The Navy at Indian Head is producing these items. Army obligations have been delayed in order for Indian Head to comply with Navy carryover limits dictated by total obligation authorities. FY20 cost reimbursable funds have been accepted for production labor while funds for purchased subcomponents will be provided as direct cite as the new start subcomponent contracts are awarded.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 43: Mines **P-1 Line Item Number / Title:** 0612E76740 / Close Terrain Shaping Obstacle

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|-------------|---------|--------------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | - | 4.995 | 34.761 | - | 34.761 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | - | 4.995 | 34.761 | - | 34.761 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | - | 4.995 | 34.761 | - | 34.761 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Thousands</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes Close Terrain Shaping Obstacle, All Types.

(F76740) The Standoff Activated Volcano Obstacle (SAVO) provides the components necessary to initiate fielded Volcano mine canisters using field initiation systems. The primary item is the SAVO base plate which is placed on the ground and has four ports to connect the Volcano canisters and electrical terminals to connect the initiation wires. The base plate is packaged with ancillary components to aid in emplacement such as initiation wire, stabilizing ground stakes, sand bags, and canister carrying straps. SAVO can be initiated via three fielded systems; the M7 Spider Networked Munition System, the MK152/ M156 Remote Activation Munition Systems (RAMS), or the CD450-4J Blasting Machine. This item is landmine policy compliant in accordance with the U.S. National landmine policy and supports the U.S. Army modernization priorities in support of the National Defense Strategy. This item is code A approved for service use.

SAVO Trainer base plates will reflect the form, fit, function, and weight of the tactical SAVO base plate. Individual Trainer base plates will produce sight and sound effects, upon receipt of a launch signal from a fielded initiation system, which effectively represents the SAVO obstacle's mine launch and armed status functionality. The SAVO Trainers will include the same packaging and ancillary components as the tactical SAVO. The SAVO Trainer base plate will provide training at Home Station and the Combat Training Centers.

(F78310) The XM204 provides an interim Top Attack solution utilizing the Urgent Capability Acquisition Framework in support of the accelerated timeline in meeting the requirements of United States Army Europe (USAREUR) Operational Needs Statement (ONS) 18-22702. This item is landmine policy compliant in accordance with the U.S. National landmine policy. This item supports the U.S. Army modernization priorities in support of the National Defense Strategy.

The XM204 is a hand emplaced, anti-vehicular (AV) munition system. The system will be used as a key component within a Terrain Shaping Obstacle (TSO). The system will influence enemy maneuver or deny access to key terrain. The XM204 consists of a Dispenser Launcher Module (DLM), and (4) top attack sub-munitions. Once manually armed, the XM204 system autonomously detects, tracks and engages target vehicles using seismic & acoustic sensors and radar within the DLM, and multi-array thermal & laser detection sensors within the Top Attack Sub-munition. A top attack sub-munition is launched by a rocket motor and engages a target using a High Melt Explosive (HMX) initiated warhead. This item is code A approved for service use.

UNCLASSIFIED

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|--|---|---|
| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 43: Mines | | P-1 Line Item Number / Title: 0612E76740 / Close Terrain Shaping Obstacle |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>The XM98 provides an interim Top Attack Emplacement Trainer that is a recoverable, reusable, durable, and versatile item. The XM98 emplacement trainer provides inert representative weight, form, fit and features of an XM204 Interim Top Attack system. No energetics, sensors, or signatures are included in the trainer. Buttons/Switches/Lights & Indicators/Batteries shall reflect the function of an XM204 Interim Top Attack system. The primary purpose of the trainer is to establish proficiency in the arming sequence. Additionally, the trainer will establish proficiencies in the planning and emplacement of terrain shaping obstacles in conjunction with other systems in the Soldier portfolio. This item is code A approved for service use.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 43: Mines **P-1 Line Item Number / Title:** 0612E76740 / Close Terrain Shaping Obstacle

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | F76740 / Standoff Activated Volcano Obstacle | | | | - / - | - / - | - / - | - / 4.685 | - / - | - / 4.685 |
| P-5 | F78310 / Close Terrain Shaping Obstacle | P-5a, P-21 | | | - / - | - / - | - / 4.995 | - / 30.076 | - / - | - / 30.076 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / - | - / 4.995 | - / 34.761 | - / - | - / 34.761 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense (DoD) Instruction 3000.04 (Munitions Requirements Process) and Army Regulation (AR) 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

(F76740) FY 2022 base procurement dollars in the amount of \$4.685 million supports the production of 50 complete systems and 15 trainers of the Standoff Activated Volcano Obstacles.

Type Classification Date: TBD

(F76740) is a new start in FY 2022.

(F78310) The FY 2022 base procurement dollars in the amount of \$30.076 million supports the production of 119 complete systems of XM204 Terrain Shaping Obstacle Common Munition Systems and 38 XM98 emplacement trainers.

Type Classification Date: TBD

UNCLASSIFIED

| | | |
|--|---|---|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | P-1 Line Item Number / Title: 0612E76740 / Close Terrain Shaping Obstacle | Item Number / Title [DODIC]: F76740 / Standoff Activated Volcano Obstacle |

| | | | | | | | |
|---|--|--------------------|----------------|------------------------|---------------------|--------------------|----------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | - | - | - | 4.685 | - | 4.685 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | - | - | - | 4.685 | - | 4.685 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | - | - | - | 4.685 | - | 4.685 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Thousands) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND TACTICAL | - | - | - | - | - | - | - | - | - | 43.240 | 50 | 2.162 | - | - | - | 43.240 | 50 | 2.162 |
| COMPLETE ROUND TRAINER | - | - | - | - | - | - | - | - | - | 40.000 | 15 | 0.600 | - | - | - | 40.000 | 15 | 0.600 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 2.762 | - | - | - | - | - | 2.762 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 2.762 | - | - | - | - | - | 2.762 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | - | - | - | 0.532 | - | - | - | - | - | 0.532 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.532 | - | - | - | - | - | 0.532 |
| Support - New Equipment Training (NET) Cost | | | | | | | | | | | | | | | | | | |
| Equipment | - | - | - | - | - | - | - | - | - | - | - | 0.352 | - | - | - | - | - | 0.352 |
| <i>Subtotal: Support - New Equipment Training (NET) Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.352 | - | - | - | - | - | 0.352 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.839 | - | - | - | - | - | 0.839 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.839 | - | - | - | - | - | 0.839 |
| Support - Program Management Cost | | | | | | | | | | | | | | | | | | |
| Contractor Management | - | - | - | - | - | - | - | - | - | - | - | 0.100 | - | - | - | - | - | 0.100 |

UNCLASSIFIED

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | P-1 Line Item Number / Title: 0612E76740 / Close Terrain Shaping Obstacle | Item Number / Title [DODIC]: F76740 / Standoff Activated Volcano Obstacle |
| ID Code (A=Service Ready, B=Not Service Ready) : | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |
| Government Management | - | - | - | - | - | - | - | - | - | - | - | 0.100 | - | - | - | - | - | 0.100 |
| <i>Subtotal: Support - Program Management Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.200 | - | - | - | - | - | 0.200 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 4.685 | - | - | - | - | - | 4.685 |

Remarks:
 (F76740) FY 2022 base procurement dollars in the amount of \$4,685 million supports the production of 50 complete systems and 15 trainers of the Standoff Activated Volcano Obstacles.
 Type Classification Date: TBD
 (F76740) is a new start in FY 2022.

UNCLASSIFIED

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | P-1 Line Item Number / Title: 0612E76740 / Close Terrain Shaping Obstacle | Item Number / Title [DODIC]: F78310 / Close Terrain Shaping Obstacle |

| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
|---|--|-------------|---------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | - | - | 4.995 | 30.076 | - | 30.076 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | - | - | 4.995 | 30.076 | - | 30.076 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | - | - | 4.995 | 30.076 | - | 30.076 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Thousands) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND TACTICAL ^(†) | - | - | - | - | - | - | - | - | - | 210.067 | 119 | 24.998 | - | - | - | 210.067 | 119 | 24.998 |
| COMPLETE ROUND TRAINER ^(†) | - | - | - | - | - | - | - | - | - | 21.237 | 38 | 0.807 | - | - | - | 21.237 | 38 | 0.807 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 25.805 | - | - | - | - | - | 25.805 |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Facilitization | - | - | - | - | - | - | - | - | 4.825 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Non Recurring Cost</i> | - | - | - | - | - | - | - | - | 4.825 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | 4.825 | - | - | 25.805 | - | - | - | - | - | 25.805 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | - | - | - | 1.948 | - | - | - | - | - | 1.948 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 1.948 | - | - | - | - | - | 1.948 |
| Support - New Equipment Training (NET) Cost | | | | | | | | | | | | | | | | | | |
| Equipment | - | - | - | - | - | - | - | - | - | - | - | 0.485 | - | - | - | - | - | 0.485 |
| <i>Subtotal: Support - New Equipment Training (NET) Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.485 | - | - | - | - | - | 0.485 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | 0.170 | - | - | 1.838 | - | - | - | - | - | 1.838 |

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|--|--|---|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | | P-1 Line Item Number / Title: 0612E76740 / Close Terrain Shaping Obstacle |
| | | Item Number / Title [DODIC]: F78310 / Close Terrain Shaping Obstacle |
| ID Code (A=Service Ready, B=Not Service Ready) : | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | 0.170 | - | - | 1.838 | - | - | - | - | - | 1.838 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | 4.995 | - | - | 30.076 | - | - | - | - | - | 30.076 |

Remarks:

(F78310) The FY 2022 base procurement dollars in the amount of \$30.076 million supports the production of 119 complete systems of XM204 Terrain Shaping Obstacle Common Munition Systems and 38 XM98 emplacement trainers. FY 2022 Support - Production engineering costs increase due to supporting hardware production of 119 complete systems and 38 trainers post facilitization efforts in FY 2021. Type Classification Date: TBD

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2022 Army **Date:** May 2021

| | | |
|--|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | P-1 Line Item Number / Title: 0612E76740 / Close Terrain Shaping Obstacle | Item Number / Title [DODIC]: F78310 / Close Terrain Shaping Obstacle |
|--|---|--|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$ K)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|--|-------------|------|-------------------------|--------------------------------------|-----------------------|---------------|------------------------------|----------------------|----------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND TACTICAL ^(†) | | 2022 | TBS01 / TBS01 | TBD | Picatinny Arsenal, NJ | Jan 2022 | Nov 2022 | 119 | 210.067 | N | | |
| COMPLETE ROUND TRAINER | | 2022 | TBS01 / TBS01 | TBD | Picatinny Arsenal, NJ | Jan 2022 | Jul 2023 | 38 | 21.237 | N | | |

^(†) indicates the presence of a P-21

Remarks:
FY 2022 quantities are based on estimated unit costs and will be updated after contract award.

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Exhibit P-21, Production Schedule: PB 2022 Army Date: May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 P-1 Line Item Number / Title: 0612E76740 / Close Terrain Shaping Obstacle Item Number / Title [DODIC]: F78310 / Close Terrain Shaping Obstacle

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | BALANCE | |
|---|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |
| COMPLETE ROUND TACTICAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2022 | ARMY | 119 | 0 | 119 | | | | A | - | - | - | - | - | - | - | - | - | - | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 14 | | 0 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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Exhibit P-21, Production Schedule: PB 2022 Army **Date:** May 2021

| | | |
|--|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 43 | P-1 Line Item Number / Title: 0612E76740 / Close Terrain Shaping Obstacle | Item Number / Title [DODIC]: F78310 / Close Terrain Shaping Obstacle |
|--|---|--|

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | TBS01 - TBS01 | 15 | 25 | 40 | 10 | 4 | 10 | 14 | 9 | 6 | 15 | 21 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets **P-1 Line Item Number / Title:** 2348EA4000 / Shoulder Launched Munitions, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|---------------|---------------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 525.626 | 67.705 | 69.288 | 24.408 | - | 24.408 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 525.626 | 67.705 | 69.288 | 24.408 | - | 24.408 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 525.626 | 67.705 | 69.288 | 24.408 | - | 24.408 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes Shoulder Launched Munitions, All Types.

(E36101) Launcher and Cartridge 84MM M136A1 (AT4CS-RS) - The AT4 is the Army's primary shoulder launched, lightweight, anti-armor weapon in support of the joint, multi-domain, high intensity conflicts and near-peer threats. The AT4-CS is a self-contained weapon consisting of a free-flight, fin-stabilized, rocket packed in an expendable, 1-piece launch tube and delivers the 84mm high explosive Anti-Armor warhead out to 250 meters. The AT4-CS incorporates a safety modification to the propulsion system that reduces the weapon's back blast and launch signature. This allows the user to safely fire the weapon from a protected area or enclosed space during close combat operations. The AT4-CS enables the Army's Soldier Lethality modernization priorities in support of the National Defense Strategy. This item is Code A, approved for service use.

(E36403) CTG, 7.62MM Tracer, F/SUBCAL ADPTR CARL GUSTAF - The 7.62MM Tracer round is a down-loaded special round intended for use with the SCA 553B sub-caliber adapter and is effective when firing at ranges up to 700m. The 7.62MM Tracer enables the Soldier to make it possible to raise the level of proficiency and reduce training costs to a low level both at the firing range and during live firing exercises. The 7.62MM Tracer enables the Army's Soldier Lethality modernization priorities in support of the National Defense Strategy. This item is Code A, approved for service use.

(E36404) CTG, Gun, HEDP 502, 84MM CARL GUSTAF (MAAWS) - The HEDP 502 (High Explosive Dual Purpose), 84MM Multi-Role Anti-Armor Anti-Personnel Weapon System (MAAWS) ammunition is used by rapid response forces that must have the ability to combat many types of threats. The 84MM HEDP 502 is effective against light-armored vehicles, concrete and brick walls, field fortified locations and bunkers. The 84MM HEDP 502 enables the Army's Soldier Lethality modernization priorities in support of the National Defense Strategy. This item is Code A, approved for service use.

(E36405) CTG, Gun, HE 441D, 84MM CARL GUSTAF (MAAWS) - The HE 441D (High Explosive 84MM) Multi-Role Anti-Armor Anti-Personnel Weapon System (MAAWS) system is used for combating troops in the open, behind cover, or in slit trenches as well as soft-skinned vehicles and similar types of targets. The 84MM HE 441D can be set for impact or air burst detonation. The 84MM HE 441D enables the Army's Soldier Lethality modernization priorities in support of the National Defense Strategy. This item is Code A, approved for service use.

(E36406) CTG, Gun, TGT PRAC-TR 141, 84MM CARL GUSTAF (MAAWS) - The 84 MM TPT 141 (Target Practice Tracer) is an inert full caliber training round that is aerodynamically stabilized in flight and fitted with a tracer that is visible throughout the flight up to 400 meters. The 84 MM TPT 141 enables the Army's Soldier Lethality modernization priorities in support of the National Defense Strategy. This item is Code A, approved for service use.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets | | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(E36409) CTG, 84mm Gun, HE programmable, CARLGSTF (MAAWS) - The HE 441E Programmable Airburst Round is an improved version of the HE 441D. The HE441E will be programmed utilizing the wiring harness and the Control System 13 - Rate Estimator (CS13-RE) fire control attached to the new lightweight M3E1 MAAWS. This is expected to result in a significant increase accuracy, airburst timing and lethality against personnel in defilade. The HE 441E enables the Army's Soldier Lethality modernization priorities in support of the National Defense Strategy. Type Classification for the HE 441E is scheduled for 4QFY22 with a Full Materiel Release 2QFY23.</p> <p>(E36901) ROCKET, PRACTICE, 21MM SUBCALIBER - The 21MM Subcaliber for Shoulder Launched Munitions (SLM) simulates the firing of unguided shoulder fired munitions and is an enabler for Shoulder Launch Munition. The 21MM Subcaliber supports the Army's modernization priorities in support of the National Defense Strategy. The 21MM Subcaliber training round simulates the tactical munitions flight trajectory, but with less noise and back blast. It is currently used by Navy and Marine Corps to simulate the M72 Light Anti-tank Weapon System (LAW). It has also been adapted to the M141 Bunker Defeat Munition (BDM) and issued in New Equipment Training (NET)/Mobile Training Teams (MTT). This item is Code A, approved for service use.</p> <p>(E88401) BUNKER DEFEAT MUNITION (BDM) - The Bunker Defeat Munition (BDM) is a single-shot, disposable, shoulder launched rocket propelled munition used to defeat earth and timber field fortifications (bunkers) out to 250 meters utilized in support of the joint, multi-domain, high intensity conflict and near-peer threats. The system is also capable of defeating lightly armored vehicles and breaches masonry walls using its 83 millimeter high explosive, dual-purpose rocket. The item is Code A, approved for service use.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets **P-1 Line Item Number / Title:** 2348EA4000 / Shoulder Launched Munitions, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E36101 / MUNITION, 84mm Shldr Lnchd, AT-4CS(Confined Space) [CA30] | P-5a | A | | - / 156.991 | - / 48.724 | - / 34.192 | - / 3.936 | - / - | - / 3.936 |
| P-5 | E36403 / CTG, 7.62mm w/Tracer f/SUBCAL ADPTR553B CARLGSTF [A254] | | A | | - / 1.000 | - / 0.176 | - / 0.176 | - / 0.002 | - / - | - / 0.002 |
| P-5 | E36404 / CTG, 84mm Gun, HEDP 502, CARLGSTF (MAAWS) [CA21] | P-5a | A | | - / 9.320 | - / 1.497 | - / 7.188 | - / - | - / - | - / - |
| P-5 | E36405 / CTG, 84mm Gun, HE 441D IM, CARLGSTF (MAAWS) [CA27] | | A | | - / 6.392 | - / 3.003 | - / 0.993 | - / 4.031 | - / - | - / 4.031 |
| P-5 | E36406 / CTG, 84mm Gun, TGT PRAC-TR 141, CARLGSTF (MAAWS) [CA10] | | A | | - / 5.204 | - / 0.497 | - / 0.991 | - / - | - / - | - / - |
| P-5 | E36409 / CTG, 84mm Gun, HE programmable, CARLGSTF (MAAWS) | P-5a, P-21 | | | - / - | - / - | - / - | - / 9.415 | - / - | - / 9.415 |
| P-5 | E36901 / ROCKET, 21mm Subcaliber Practice Trainer, f/SLM [HA21] | | A | | - / 7.752 | - / 2.402 | - / 1.960 | - / - | - / - | - / - |
| P-5 | E88401 / MUNITION, 83mm Bunker Defeat(BDM), Rkt&Lnchr, M141 [HA08] | P-5a, P-21 | A | | - / 338.967 | - / 11.406 | - / 23.788 | - / 7.024 | - / - | - / 7.024 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 525.626 | - / 67.705 | - / 69.288 | - / 24.408 | - / - | - / 24.408 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD)-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$24.406 million supports the procurement of five Shoulder Launched Munitions items.

FY 2022 Base dollars in the amount of \$0.002 million support the enduring COCOM requirement to deter potential adversaries and support the European Deterrence Initiative.

(E36101) Launcher and Cartridge 84MM M136A1 (AT4CS-RS) - This is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goal. FY 2022 Base procurement dollars in the amount of \$3.936 million supports the procurement of 1,286 Rounds. In FY 2022, funding in the amount of \$0.225 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments.

Type Classification Date: 2009

(E36403) CTG, 7.62MM TRACER 553 F/SUBCAL ADAPTR CARL GUSTAF - This is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base dollars in the amount of \$0.002 million support the enduring COCOM requirement to deter potential adversaries and support the European Deterrence Initiative.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets | | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| Type Classification Date: 2017 | | |
| (E36404) CTG, Gun, HEDP 502, 84MM CARL GUSTAF (MAAWS) - This is a training standard item used in both training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goal. E36404 has no FY 2022 funding request. Type Classification Date: 2017 | | |
| (E36405) CTG, Gun, HE 441D, 84MM CARL GUSTAF (MAAWS) - This is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goal. FY 2022 Base procurement dollars in the amount of \$4.031 million supports the procurement of 1,394 Rounds. Type Classification Date: 2017 | | |
| (E36406) CTG, Gun, TGT PRAC-TR 141, 84MM CARL GUSTAF (MAAWS) - This is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal. E36406 has no FY 2022 funding request. Type Classification Date: 2017 | | |
| (E36409) CTG, 84mm Gun, HE programmable, CARLGSTF (MAAWS) - This is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goal. FY 2022 Base procurement dollars in the amount of \$9.415 million supports the procurement of 3,980 Rounds. E36409 is a new start in FY 2022. Type Classification Date: 4QFY22 | | |
| (E36901) ROCKET, PRACTICE, 21MM SUBCALIBER for Shoulder Launched Munitions (SLM) - This is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal. E36901 has no FY 2022 funding request. Type Classification Date: 1993 | | |
| (E88401) BUNKER DEFEAT MUNITION, 83mm Rocket & Launcher, M141 - This is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$7.024 million supports the procurement of 290 Rounds. Type Classification Date: 2008 | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | Item Number / Title [DODIC]: E36101 / MUNITION, 84mm Shldr Lnchd, AT-4CS(Confined Space) [CA30] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|---------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 156.991 | 48.724 | 34.192 | 3.936 | - | 3.936 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 156.991 | 48.724 | 34.192 | 3.936 | - | 3.936 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 156.991 | 48.724 | 34.192 | 3.936 | - | 3.936 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 16,100.45 | 9,551 | 153.775 | 2,470.05 | 17,924 | 44.273 | 2,685.24 | 12,014 | 32.260 | 2,806.08 | 1,286 | 3.609 | - | - | - | 2,806.08 | 1,286 | 3.609 |
| Subtotal: Recurring Cost | - | - | 153.775 | - | - | 44.273 | - | - | 32.260 | - | - | 3.609 | - | - | - | - | - | 3.609 |
| Subtotal: Hardware Cost | - | - | 153.775 | - | - | 44.273 | - | - | 32.260 | - | - | 3.609 | - | - | - | - | - | 3.609 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | 0.133 | - | - | - | - | - | - | - | - | - | - | - | - |
| First Article Test | - | - | - | - | - | 0.211 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | - | - | - | 0.344 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Production Qualification Test | - | - | - | - | - | 0.064 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Product Improvement Cost | - | - | - | - | - | 0.064 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 3.216 | - | - | 4.043 | - | - | 1.932 | - | - | 0.327 | - | - | - | - | - | 0.327 |
| Subtotal: Support - Production Engineering Cost | - | - | 3.216 | - | - | 4.043 | - | - | 1.932 | - | - | 0.327 | - | - | - | - | - | 0.327 |
| Gross/Weapon System Cost | - | - | 156.991 | - | - | 48.724 | - | - | 34.192 | - | - | 3.936 | - | - | - | - | - | 3.936 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | Item Number / Title [DODIC]: E36101 / MUNITION, 84mm Shldr Lnchd, AT-4CS(Confined Space) [CA30] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|---|--------------------------------------|--------------------------|---------------|---|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | | | | Item Number / Title [DODIC]: E36101 / MUNITION, 84mm Shldr Lnchd, AT-4CS(Confined Space) [CA30] | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND | | 2020 | SAAB DYNAMICS AB / KARLSKOGA, SWEDEN | Option / FFP | PICATINNY ARSENAL, NJ | Jun 2020 | Dec 2021 | 17,924 | 2,470.05 | Y | | |
| COMPLETE ROUND | | 2021 | SAAB DYNAMICS AB / KARLSKOGA, SWEDEN | Option / FFP | PICATINNY ARSENAL, NJ | Apr 2021 | Oct 2022 | 12,014 | 2,685.24 | Y | | |
| COMPLETE ROUND | | 2022 | SAAB DYNAMICS AB / KARLSKOGA, SWEDEN | Option / FFP | PICATINNY ARSENAL, NJ | Mar 2022 | Sep 2023 | 1,286 | 2,806.08 | Y | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | Item Number / Title [DODIC]: E36403 / CTG, 7.62mm w/Tracer f/ SUBCAL ADPTR553B CARLGSTF [A254] |

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| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 1.000 | 0.176 | 0.176 | 0.002 | - | 0.002 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 1.000 | 0.176 | 0.176 | 0.002 | - | 0.002 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 1.000 | 0.176 | 0.176 | 0.002 | - | 0.002 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | 1.000 | 2.68 | 65,671 | 0.176 | 2.56 | 68,750 | 0.176 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 1.000 | - | - | 0.176 | - | - | 0.176 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 1.000 | - | - | 0.176 | - | - | 0.176 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.002 | - | - | - | - | - | 0.002 |
| Subtotal: Support - Production Engineering Cost | - | - | - | - | - | - | - | - | - | - | - | 0.002 | - | - | - | - | - | 0.002 |
| Gross/Weapon System Cost | - | - | 1.000 | - | - | 0.176 | - | - | 0.176 | - | - | 0.002 | - | - | - | - | - | 0.002 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | Item Number / Title [DODIC]: E36404 / CTG, 84mm Gun, HEDP 502, CARLGSTF (MAAWS) [CA21] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 9.320 | 1.497 | 7.188 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 9.320 | 1.497 | 7.188 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 9.320 | 1.497 | 7.188 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(t) | 6,331.69 | 1,227 | 7.769 | 1,548.14 | 933 | 1.444 | 1,880.33 | 3,509 | 6.598 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 7.769 | - | - | 1.444 | - | - | 6.598 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 7.769 | - | - | 1.444 | - | - | 6.598 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.170 | - | - | - | - | - | 0.060 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | 0.170 | - | - | - | - | - | 0.060 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.381 | - | - | 0.053 | - | - | 0.530 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 1.381 | - | - | 0.053 | - | - | 0.530 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 9.320 | - | - | 1.497 | - | - | 7.188 | - | - | - | - | - | - | - | - | - |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|---|--------------------------------------|--------------------------|---------------|--|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | | | | Item Number / Title [DODIC]: E36404 / CTG, 84mm Gun, HEDP 502, CARLGSTF (MAAWS) [CA21] | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND | | 2020 | SAAB DYNAMICS AKTIEBOLAG / KARLSKOGA, SWEDEN | Option / FFP | PICATINNY ARSENAL, NJ | Jun 2020 | Jun 2021 | 933 | 1,548.14 | Y | | |
| COMPLETE ROUND | | 2021 | SAAB DYNAMICS AKTIEBOLAG / KARLSKOGA, SWEDEN | Option / FFP | PICATINNY ARSENAL, NJ | Apr 2021 | Apr 2022 | 3,509 | 1,880.33 | Y | | |

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|--|---|--|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | Item Number / Title [DODIC]: E36405 / CTG, 84mm Gun, HE 441D IM, CARLGSTF (MAAWS) [CA27] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|--------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 6.392 | 3.003 | 0.993 | 4.031 | - | 4.031 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 6.392 | 3.003 | 0.993 | 4.031 | - | 4.031 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 6.392 | 3.003 | 0.993 | 4.031 | - | 4.031 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 3,425.17 | 1,477 | 5,059 | 1,591.90 | 1,864 | 2,967 | 2,496.83 | 360 | 0.899 | 2,609.19 | 1,394 | 3,637 | - | - | - | 2,609.19 | 1,394 | 3,637 |
| <i>Subtotal: Recurring Cost</i> | - | - | 5,059 | - | - | 2,967 | - | - | 0.899 | - | - | 3,637 | - | - | - | - | - | 3,637 |
| <i>Subtotal: Hardware Cost</i> | - | - | 5,059 | - | - | 2,967 | - | - | 0.899 | - | - | 3,637 | - | - | - | - | - | 3,637 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.183 | - | - | - | - | - | 0.021 | - | - | 0.060 | - | - | - | - | - | 0.060 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.183 | - | - | - | - | - | 0.021 | - | - | 0.060 | - | - | - | - | - | 0.060 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.150 | - | - | 0.035 | - | - | 0.073 | - | - | 0.334 | - | - | - | - | - | 0.334 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 1.150 | - | - | 0.035 | - | - | 0.073 | - | - | 0.334 | - | - | - | - | - | 0.334 |
| Gross/Weapon System Cost | - | - | 6.392 | - | - | 3.003 | - | - | 0.993 | - | - | 4.031 | - | - | - | - | - | 4.031 |

Remarks:

Production Engineering increased due to change in planned procurement and reflects the pro-rated share of SLM BLIN in FY 2022.

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|--|---|---|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | Item Number / Title [DODIC]: E36406 / CTG, 84mm Gun, TGT PRAC-TR 141, CARLGSTF (MAAWS) [CA10] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 5.204 | 0.497 | 0.991 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 5.204 | 0.497 | 0.991 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 5.204 | 0.497 | 0.991 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 504.12 | 8,002 | 4.034 | 461.26 | 949 | 0.438 | 479.71 | 1,903 | 0.913 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 4.034 | - | - | 0.438 | - | - | 0.913 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 4.034 | - | - | 0.438 | - | - | 0.913 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | 0.069 | - | - | 0.003 | - | - | 0.005 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | 0.069 | - | - | 0.003 | - | - | 0.005 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.101 | - | - | 0.056 | - | - | 0.073 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 1.101 | - | - | 0.056 | - | - | 0.073 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 5.204 | - | - | 0.497 | - | - | 0.991 | - | - | - | - | - | - | - | - | - |

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|--|---|--|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | Item Number / Title [DODIC]: E36409 / CTG, 84mm Gun, HE programmable, CARLGSTF (MAAWS) |

| | | | | | | | |
|---|--|--------------------|----------------|------------------------|---------------------|--------------------|----------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (<i>Units in Each</i>) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | | - | - | - | 9.415 | - | 9.415 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | | - | - | - | 9.415 | - | 9.415 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | | - | - | - | 9.415 | - | 9.415 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round ^(†) | - | - | - | - | - | - | - | - | - | 2,328.00 | 3,980 | 9.265 | - | - | - | 2,328.00 | 3,980 | 9.265 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 9.265 | - | - | - | - | - | 9.265 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 9.265 | - | - | - | - | - | 9.265 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | - | - | - | - | - | - | 0.021 | - | - | - | - | - | 0.021 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.021 | - | - | - | - | - | 0.021 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.129 | - | - | - | - | - | 0.129 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.129 | - | - | - | - | - | 0.129 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 9.415 | - | - | - | - | - | 9.415 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|---|--------------------------------------|-----------------------|---------------|--|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | | | | Item Number / Title [DODIC]: E36409 / CTG, 84mm Gun, HE programmable, CARLGSTF (MAAWS) | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| Complete Round ^(†) | | 2022 | SAAB DYNAMICS AB / KARLSKOGA, SWEDEN | Option / FFP | Picatinny Arsenal, NJ | Mar 2022 | Sep 2023 | 3,980 | 2,328.00 | Y | | |

^(†) indicates the presence of a P-21

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|---|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | | | | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | | | | | | Item Number / Title [DODIC]: E36409 / CTG, 84mm Gun, HE programmable, CARLGSTF (MAAWS) | | | | | | | | | | | |

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | BALANCE | |
|---|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------|-------------|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | | J U L |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|------|------|--|-------|---|-------|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|---|
| Complete Round | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | ARMY | | 3,980 | 0 | 3,980 | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3,980 | 0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |
|--|--|--|--|--|--|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types |
| Item Number / Title [DODIC]: E36409 / CTG, 84mm Gun, HE programmable, CARLGSTF (MAAWS) | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|--------------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | SAAB DYNAMICS AB - KARLSKOGA, SWEDEN | 500 | 5,000 | 7,000 | 8 | 8 | 24 | 32 | 6 | 6 | 18 | 24 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | Item Number / Title [DODIC]: E36901 / ROCKET, 21mm Subcaliber Practice Trainer, f/SLM [HA21] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 7.752 | 2.402 | 1.960 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 7.752 | 2.402 | 1.960 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 7.752 | 2.402 | 1.960 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 356.46 | 19,390 | 6.912 | 158.65 | 14,458 | 2.294 | 161.92 | 11,238 | 1.820 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 6.912 | - | - | 2.294 | - | - | 1.820 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 6.912 | - | - | 2.294 | - | - | 1.820 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.840 | - | - | 0.108 | - | - | 0.140 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.840 | - | - | 0.108 | - | - | 0.140 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 7.752 | - | - | 2.402 | - | - | 1.960 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | Item Number / Title [DODIC]: E88401 / MUNITION, 83mm Bunker Defeat(BDM), Rkt&Lnchr, M141 [HA08] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|---------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 338.967 | 11.406 | 23.788 | 7.024 | - | 7.024 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 338.967 | 11.406 | 23.788 | 7.024 | - | 7.024 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 338.967 | 11.406 | 23.788 | 7.024 | - | 7.024 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| BUNKER DEFEAT MUNITION (BDM) ^(†) | 41,962.65 | 8,025 | 336.750 | 19,880.00 | 491 | 9.761 | 16,865.10 | 1,320 | 22.262 | 20,847.79 | 290 | 6.046 | - | - | - | 20,847.79 | 290 | 6.046 |
| <i>Subtotal: Recurring Cost</i> | - | - | 336.750 | - | - | 9.761 | - | - | 22.262 | - | - | 6.046 | - | - | - | - | - | 6.046 |
| <i>Subtotal: Hardware Cost</i> | - | - | 336.750 | - | - | 9.761 | - | - | 22.262 | - | - | 6.046 | - | - | - | - | - | 6.046 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.216 | - | - | 1.644 | - | - | 1.526 | - | - | 0.978 | - | - | - | - | - | 0.978 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 2.216 | - | - | 1.644 | - | - | 1.526 | - | - | 0.978 | - | - | - | - | - | 0.978 |
| Gross/Weapon System Cost | - | - | 338.967 | - | - | 11.406 | - | - | 23.788 | - | - | 7.024 | - | - | - | - | - | 7.024 |

Remarks:

FY 2022 unit cost increase due to lower quantity hardware buy. Quantity puts hardware award in the lowest range of pricing matrix.

(†) indicates the presence of a P-5a

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|--|--|--|---|--|--|--|---|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | | | | Item Number / Title [DODIC]: E88401 / MUNITION, 83mm Bunker Defeat(BDM), Rkt&Lnchr, M141 [HA08] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|--------------------------------------|--------------------------------------|-----------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| BUNKER DEFEAT MUNITION (BDM) ^(†) | | 2020 | NAMMO DEFENSE SYSTEMS INC / MESA, AZ | Option / FFP | PICATINNY ARSENAL, NJ | Mar 2020 | Jun 2021 | 491 | 19,880.00 | Y | | |
| BUNKER DEFEAT MUNITION (BDM) ^(†) | | 2021 | NAMMO DEFENSE SYSTEMS INC / MESA, AZ | Option / FFP | PICATINNY ARSENAL, NJ | Jun 2021 | Sep 2022 | 1,320 | 16,865.10 | Y | | |
| BUNKER DEFEAT MUNITION (BDM) ^(†) | | 2022 | NAMMO DEFENSE SYSTEMS INC / MESA, AZ | Option / FFP | PICATINNY ARSENAL, NJ | Mar 2022 | Jun 2023 | 290 | 20,847.79 | Y | | |

^(†) indicates the presence of a P-21

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|--|--|--|--|--|--|---|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | | | | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | | | | | | Item Number / Title [DODIC]: E88401 / MUNITION, 83mm Bunker Defeat(BDM), Rkt&Lnchr, M141 [HA08] | | | | | | | | | | | |

| Cost Elements (Units in Each) | | | | | | Fiscal Year 2020 | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | B A L A N C E | | | | | | |
|----------------------------------|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|--|--|--|--|-------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | | | | | |
| BUNKER DEFEAT MUNITION (BDM) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 8025 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 491 | 0 | 491 | | | | | | | | | | | | | | | | | | | | | | | | | 491 | | | | | 0 |
| | 1 | 2021 | ARMY | 1,320 | 0 | 1,320 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1,320 |
| | 1 | 2022 | ARMY | 290 | 0 | 290 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 290 |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | | | | | | | | | | | | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types | | | | | | | | | | | | | | Item Number / Title [DODIC]: E88401 / MUNITION, 83mm Bunker Defeat(BDM), Rkt&Lnchr, M141 [HA08] | | | | | | | | | | | | | |

| Cost Elements <i>(Units in Each)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | B A L A N C E | | | |
|---|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|---------------------------------|--|---|---|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |
| BUNKER DEFEAT MUNITION (BDM) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 8025 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | | 491 | 491 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | |
| 1 | 2021 | ARMY | | 1,320 | 0 | 1,320 | - | - | - | - | - | - | - | - | - | - | - | 700 | 620 | | | | | | | | | | | | | | | | | | 0 |
| 1 | 2022 | ARMY | | 290 | 0 | 290 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | P-1 Line Item Number / Title: 2348EA4000 / Shoulder Launched Munitions, All Types |
| Item Number / Title [DODIC]: E88401 / MUNITION, 83mm Bunker Defeat(BDM), Rkt&Lnchr, M141 [HA08] | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|--------------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | NAMMO DEFENSE SYSTEMS INC - MESA, AZ | 100 | 700 | 1,400 | 8 | 8 | 18 | 26 | 6 | 6 | 15 | 21 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets **P-1 Line Item Number / Title:** 3246E37300 / Rocket, Hydra 70, All Types

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|--|----------------|----------------|----------------|----------------|-------------|----------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 853.638 | 250.453 | 159.795 | 109.536 | - | 109.536 | - | - | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 853.638 | 250.453 | 159.795 | 109.536 | - | 109.536 | - | - | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 853.638 | 250.453 | 159.795 | 109.536 | - | 109.536 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (\$ in Dollars) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Aviation Rocket and Small Guided Munition Product Office is the executive procurement agent for all services and Foreign Military customers, for all variants of aviation rockets. This budget line procures all aviation rockets and small guided munition types in support of Army operational, training and war reserve requirements. The systems provide combat overmatch capability and ensures the availability of munitions to support combat operations. Aviation rockets and small guided munitions are used on manned and unmanned platforms by Army, Navy, Air Force, Special Operations and Foreign Military aircraft. The unguided systems perform a number of roles including anti-materiel, anti-personnel, air-to-ground suppression and illumination. The guided systems are used to provide increased accuracy over the unguided munitions in precision strikes against lightly armored and soft point targets enabling better conformance to restricted rules of engagement. This Hydra-70 rocket funding supports the entire aviation rocket system and small guided munitions to include resolution of obsolescence, safety, insensitive munitions, reliability, weapon integration activities, test sets, engineering changes, production issues, lifetime buys of obsolete components and guidance section testing and repair kits.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets **P-1 Line Item Number / Title:** 3246E37300 / Rocket, Hydra 70, All Types

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided | P-5a, P-21 | | | - / 534.873 | - / 81.638 | - / 153.458 | - / 98.971 | - / - | - / 98.971 |
| P-5 | E37413 / Aviation Rocket Procurement, Guided | P-5a, P-21 | | | - / 318.765 | - / 168.815 | - / 6.337 | - / 10.565 | - / - | - / 10.565 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 853.638 | - / 250.453 | - / 159.795 | - / 109.536 | - / - | - / 109.536 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The FY 2022 Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY22 Hydra-70 Base funding of \$78.791M will Procure 31,441 unguided Hydra-70 Rockets and zero (0) guided Hydra-70 Rockets.

FY22 Base dollars in the amount of \$30.745M supports the Direct War requirement of 9,995 unguided Hydra-70 Rockets and 377 guided Hydra-70 Rockets.

The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or Foreign Military Sales (FMS) to increase procurement of 2.75 rockets, and/or address safety, reliability, affordability, and /or obsolescence.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types | | | Item Number / Title [DODIC]: E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided | | |
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | | | MDAP/MAIS Code: | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 534.873 | 81.638 | 153.458 | 98.971 | - | 98.971 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 534.873 | 81.638 | 153.458 | 98.971 | - | 98.971 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 534.873 | 81.638 | 153.458 | 98.971 | - | 98.971 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Flyaway Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round ^(†) | 1,017.30 | 433,937 | 441.444 | 1,016.40 | 57,210 | 58.148 | 818.57 | 125,024 | 102.341 | 1,109.84 | 41,383 | 45.929 | - | - | - | 1,109.84 | 41,383 | 45.929 |
| Radford Army Ammunition Plant (AAP) Industrial Facilities | - | - | - | - | - | - | - | - | 27.708 | - | - | 29.124 | - | - | - | - | - | 29.124 |
| Engineering Services | - | - | 4.056 | - | - | - | - | - | 2.632 | - | - | 2.724 | - | - | - | - | - | 2.724 |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>445.501</i> | - | - | <i>58.148</i> | - | - | <i>132.681</i> | - | - | <i>77.777</i> | - | - | - | - | - | <i>77.777</i> |
| <i>Subtotal: Flyaway Cost</i> | - | - | <i>445.501</i> | - | - | <i>58.148</i> | - | - | <i>132.681</i> | - | - | <i>77.777</i> | - | - | - | - | - | <i>77.777</i> |
| Support - Industrial Facilities Cost | | | | | | | | | | | | | | | | | | |
| Radford Army Ammunition Plant (AAP) | - | - | 44.485 | - | - | 17.882 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Industrial Facilities Cost</i> | - | - | <i>44.485</i> | - | - | <i>17.882</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 31.000 | - | - | 3.662 | - | - | 10.632 | - | - | 10.845 | - | - | - | - | - | 10.845 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | <i>31.000</i> | - | - | <i>3.662</i> | - | - | <i>10.632</i> | - | - | <i>10.845</i> | - | - | - | - | - | <i>10.845</i> |
| Support - Program Management Cost | | | | | | | | | | | | | | | | | | |
| Government Management | - | - | 13.888 | - | - | 1.946 | - | - | 10.146 | - | - | 10.349 | - | - | - | - | - | 10.349 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types | Item Number / Title [DODIC]: E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided |
| ID Code (A=Service Ready, B=Not Service Ready) : | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Program Management Cost</i> | - | - | 13.888 | - | - | 1.946 | - | - | 10.146 | - | - | 10.349 | - | - | - | - | - | 10.349 |
| Gross/Weapon System Cost | - | - | 534.873 | - | - | 81.638 | - | - | 153.458 | - | - | 98.971 | - | - | - | - | - | 98.971 |

Remarks:

The Program Office is under a Section 806 of the National Defense Authorization Act for Fiscal Year 1999 (Public Law 105-261) restriction to procure MK90 Propellant Grain from Radford Army Ammunition Plant to maintain a facility, producer, manufacturer, or supplier for an essential item of ammunition.

FY21 hardware strategy changed to move Support - Industrial Facilities Costs to recurring hardware unit cost. Strategy directed by Joint Program Executive Office Armaments & Ammunition. This cost is shared over all customers in proportion with the produced at Radford Army Ammunition Plant.

The hardware unit cost is based on combined United States Army, other services, and FMS procurement being at minimum sustainment rate versus economic ordering quantity.

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types | | | | Item Number / Title [DODIC]: E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|----------------------------------|--------------------------------------|----------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| Complete Round ^(†) | | 2019 | General Dynamics / Williston, VT | C / FFP | Redstone Arsenal, AL | May 2020 | Mar 2022 | 88,800 | 873.20 | Y | | Aug 2018 |
| Complete Round ^(†) | | 2020 | General Dynamics / Williston, VT | C / FFP | Redstone Arsenal, AL | May 2020 | Mar 2022 | 57,210 | 1,016.40 | Y | | Aug 2018 |
| Complete Round ^(†) | | 2021 | General Dynamics / Williston, VT | C / FFP | Redstone Arsenal, AL | Apr 2021 | Nov 2022 | 125,024 | 818.57 | Y | | Aug 2018 |
| Complete Round ^(†) | | 2022 | General Dynamics / Williston, VT | C / FFP | Redstone Arsenal, AL | Mar 2022 | Sep 2023 | 41,383 | 1,109.84 | Y | | Aug 2018 |

^(†) indicates the presence of a P-21

- Remarks:**
- QTY EA for delivery schedule.
 - Contractor minimum sustainment rate for the total of all variants is 100,000 rockets annually.
 - The Aviation Rocket and Small Guided Munition Product Office is the executive procurement agent for all services and Foreign Military customers, for all variants of aviation rockets.
 - FY20 new contract awarded 29 May 2020. New Contract is base and 4 option years (FY20-FY24).
 - Other services and FMS customers are shown on the P-21 delivery schedule.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | Date: May 2021 | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | | | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types | | | | | | Item Number / Title [DODIC]: E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided | | | | | | | | | |

| Cost Elements (Units in Thousands) | | | | | | | Fiscal Year 2020 | | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | | BALANCE |
|---------------------------------------|-------------|--------------|---------|----------------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|-------|---------------|---------------|--------|----------------|----------------|-------|---------|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |
| Complete Round | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 345137 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2019 | AF (‡) | | 29.640 | .000 | 29.640 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 29.640 | | |
| 1 | 2019 | ARMY | | 88.800 | .000 | 88.800 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 88.800 | | |
| 1 | 2019 | FMS (‡) | | 15.085 | .000 | 15.085 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 15.085 | | |
| 1 | 2019 | NAVY (‡) | | 32.875 | .000 | 32.875 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 20.000 | - | - | - | 12.875 | | |
| 1 | 2019 | Total | | 166.400 | .000 | 166.400 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 20.000 | - | - | - | 146.400 | | |
| 1 | 2020 | AF (‡) | | 167.300 | .000 | 167.300 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19.980 | - | 147.320 | | |
| 1 | 2020 | ARMY | | 57.210 | .000 | 57.210 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 57.210 | | |
| 1 | 2020 | FMS (‡) | | 7.976 | .000 | 7.976 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7.976 | | |
| 1 | 2020 | NAVY (‡) | | 85.845 | .000 | 85.845 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 85.845 | | |
| 1 | 2020 | Total | | 318.331 | .000 | 318.331 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19.980 | - | 298.351 | | | |
| 1 | 2021 | ARMY | | 125.024 | .000 | 125.024 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 125.024 | | |
| 1 | 2021 | NAVY (‡) | | 35.306 | .000 | 35.306 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 35.306 | | |
| 1 | 2021 | Total | | 160.330 | .000 | 160.330 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 160.330 | | |
| 1 | 2022 | ARMY | | 41.383 | .000 | 41.383 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 41.383 | | |
| 1 | 2022 | NAVY (‡) | | 45.123 | .000 | 45.123 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 45.123 | | |
| 1 | 2022 | Total | | 86.506 | .000 | 86.506 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 86.506 | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | | | | | | | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types | | | | | | | | | | Item Number / Title [DODIC]: E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | | B A L A N C E | | | | | | | | | | | | | | | | | | |
|--|------------------|--------------|----------------|---------------|---|--|--------------------|-------------|--------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------------------|---------------|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|-------------|-------------|-------------|---------------------------------|-------------|-------------|--------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEP T P R I O R T O 1 O C T 2 0 2 1 | BAL D U E A S O F 1 O C T | Calendar Year 2022 | | | | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | | | | | | | | | | | | | | | | |
| Complete Round | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 345137 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2019 | AF (†) | 29.640 | .000 | 29.640 | - | - | - | 7.440 | - | - | 2.160 | 3.250 | 6.290 | 3.500 | - | 3.500 | - | 3.500 | - | - | | | | | | | | | | | | | | | | .000 | | | | | | | | | | | | | | | | |
| 1 | 2019 | ARMY | 88.800 | .000 | 88.800 | - | - | - | - | - | 21.900 | - | - | - | 2.304 | - | 7.296 | 40.704 | 5.532 | 5.532 | 5.532 | | | | | | | | | | | | | | | | .000 | | | | | | | | | | | | | | | | |
| 1 | 2019 | FMS (†) | 15.085 | .000 | 15.085 | - | - | - | - | 3.703 | - | - | 7.104 | .090 | 3.648 | - | - | .540 | - | - | - | | | | | | | | | | | | | | | | .000 | | | | | | | | | | | | | | | | |
| 1 | 2019 | NAVY (†) | 32.875 | 20.000 | 12.875 | 12.674 | - | - | - | - | - | - | - | .201 | - | - | - | - | - | - | - | | | | | | | | | | | | | | | | .000 | | | | | | | | | | | | | | | | |
| 1 | 2019 | Total | 166.400 | 20.000 | 146.400 | 12.674 | - | - | 7.440 | 3.703 | 21.900 | 2.160 | 10.354 | 6.581 | 9.452 | - | 10.796 | 41.244 | 9.032 | 5.532 | 5.532 | - | - | - | - | - | - | - | - | - | - | - | .000 | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | AF (†) | 167.300 | 19.980 | 147.320 | - | 19.980 | - | 5.040 | - | 4.000 | 2.880 | 7.470 | .010 | 15.870 | 17.460 | 22.140 | 32.440 | 20.030 | - | - | | | | | | | | | | | | | | | | .000 | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 57.210 | .000 | 57.210 | - | - | - | - | - | .050 | - | - | 13.416 | 3.660 | - | 2.820 | 20.296 | 5.656 | 5.656 | 5.656 | | | | | | | | | | | | | | | | .000 | | | | | | | | | | | | | | | | |
| 1 | 2020 | FMS (†) | 7.976 | .000 | 7.976 | - | - | - | .200 | 3.888 | - | - | 2.064 | - | 1.824 | - | - | - | - | - | - | | | | | | | | | | | | | | | | .000 | | | | | | | | | | | | | | | | |
| 1 | 2020 | NAVY (†) | 85.845 | .000 | 85.845 | 7.326 | 12.096 | - | - | 16.464 | - | - | - | 20.295 | - | - | 15.272 | 6.520 | - | - | 7.872 | | | | | | | | | | | | | | | | .000 | | | | | | | | | | | | | | | | |
| 1 | 2020 | Total | 318.331 | 19.980 | 298.351 | 7.326 | 32.076 | - | 5.240 | 20.352 | 4.050 | 2.880 | 9.534 | 33.721 | 21.354 | 17.460 | 40.232 | 59.256 | 25.686 | 5.656 | 13.528 | - | - | - | - | - | - | - | - | - | - | .000 | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2021 | ARMY | 125.024 | .000 | 125.024 | - | - | - | - | - | - | - | - | - | - | - | - | 6.001 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 59.463 | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2021 | NAVY (†) | 35.306 | .000 | 35.306 | - | - | - | - | - | - | - | - | - | - | - | - | 2.942 | 2.942 | 2.942 | 2.942 | 2.942 | 2.942 | 2.942 | 2.942 | 2.942 | 2.942 | 2.942 | 2.942 | 2.942 | 2.943 | 2.943 | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2021 | Total | 160.330 | .000 | 160.330 | - | - | - | - | - | - | - | - | - | - | - | - | 8.943 | 8.898 | 8.898 | 8.898 | 8.898 | 8.898 | 8.898 | 8.898 | 8.898 | 8.898 | 8.898 | 8.898 | 8.899 | 62.406 | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2022 | ARMY | 41.383 | .000 | 41.383 | | | | | | | | | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.889 | 37.494 | | | | | | | | | | | | | | | | |
| 1 | 2022 | NAVY (†) | 45.123 | .000 | 45.123 | | | | | | | | | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.763 | 41.360 | | | | | | | | | | | | | |
| 1 | 2022 | Total | 86.506 | .000 | 86.506 | | | | | | | | | | | | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7.652 | 78.854 | | | | | | | | | | | | | | |
| <table style="width:100%; border-collapse: collapse; font-size: 8px;"> <tr> <td>O C T</td> <td>N O V</td> <td>D E C</td> <td>J A N</td> <td>F E B</td> <td>M A R</td> <td>A P R</td> <td>M A Y</td> <td>J U N</td> <td>J U L</td> <td>A U G</td> <td>S E P</td> <td>O C T</td> <td>N O V</td> <td>D E C</td> <td>J A N</td> <td>F E B</td> <td>M A R</td> <td>A P R</td> <td>M A Y</td> <td>J U N</td> <td>J U L</td> <td>A U G</td> <td>S E P</td> </tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |
| O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | | | | | | | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types | | | | | | | | | | Item Number / Title [DODIC]: E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided | | | | | | | | | |

| Cost Elements (Units in Thousands) | | | | | | | Fiscal Year 2024 | | | | | | | | | | | | | | | | | Fiscal Year 2025 | | | | | | | | | | | | | BALANCE |
|---------------------------------------|---------|----|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|-------|-------|--|--|--|--|--|--|---------|
| O C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2023 | BAL DUE AS OF 1 OCT | Calendar Year 2024 | | | | | | | | | | | | | | | | | Calendar Year 2025 | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|------|--------------|----------------|----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|---|---|---|---|-------------|-------------|------|------|
| Complete Round | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 345137 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2019 | AF (†) | 29.640 | 29.640 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2019 | ARMY | 88.800 | 88.800 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2019 | FMS (†) | 15.085 | 15.085 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2019 | NAVY (†) | 32.875 | 32.875 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2019 | Total | 166.400 | 166.400 | .000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | |
| 1 | 2020 | AF (†) | 167.300 | 167.300 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2020 | ARMY | 57.210 | 57.210 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2020 | FMS (†) | 7.976 | 7.976 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2020 | NAVY (†) | 85.845 | 85.845 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| 1 | 2020 | Total | 318.331 | 318.331 | .000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | |
| 1 | 2021 | ARMY | 125.024 | 65.561 | 59.463 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.859 | | | | | | | | | | | | | | | | | | | | | .000 | | |
| 1 | 2021 | NAVY (†) | 35.306 | 32.363 | 2.943 | 2.943 | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | .000 | | |
| 1 | 2021 | Total | 160.330 | 97.924 | 62.406 | 8.899 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.956 | 5.859 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | | |
| 1 | 2022 | ARMY | 41.383 | 3.889 | 37.494 | 3.889 | 3.889 | 3.889 | 3.889 | 3.889 | 3.889 | 3.889 | 3.889 | 3.889 | 2.493 | | | | | | | | | | | | | | | | | | | | | .000 | | |
| 1 | 2022 | NAVY (†) | 45.123 | 3.763 | 41.360 | 3.760 | 3.760 | 3.760 | 3.760 | 3.760 | 3.760 | 3.760 | 3.760 | 3.760 | 3.760 | 3.760 | | | | | | | | | | | | | | | | | | | .000 | | | |
| 1 | 2022 | Total | 86.506 | 7.652 | 78.854 | 7.649 | 7.649 | 7.649 | 7.649 | 7.649 | 7.649 | 7.649 | 7.649 | 7.649 | 6.253 | 3.760 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | | |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types |
| | | Item Number / Title [DODIC]: E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Year) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|----------------------------------|--------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | General Dynamics - Williston, VT | 100,000 | 250,000 | 340,000 | 7 | 6 | 18 | 24 | 7 | 6 | 18 | 24 |

Remarks:

Production rates for Minimum Sustainment Rate (MSR), one eight-hour shift, five days a week (1-8-5) and Maximum MSR are actual quantities.

Minimum Sustaining Rate is satisfied by multi-service procurements.

(†) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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|--|--|---|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types | Item Number / Title [DODIC]: E37413 / Aviation Rocket Procurement, Guided |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|----------------|----------------|--------------|---------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 318.765 | 168.815 | 6.337 | 10.565 | - | 10.565 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 318.765 | 168.815 | 6.337 | 10.565 | - | 10.565 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 318.765 | 168.815 | 6.337 | 10.565 | - | 10.565 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Flyaway Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round ^(†) | 22,004.69 | 12,169 | 267.775 | 21,944.01 | 6,573 | 144.238 | 23,800.29 | 237 | 5.641 | 24,267.11 | 377 | 9.149 | - | - | - | 24,267.11 | 377 | 9.149 |
| Complete Round, Unguided section | 924.43 | 9,600 | 8.875 | 1,296.21 | 6,573 | 8.520 | 2,717.37 | 237 | 0.644 | 3,051.75 | 377 | 1.151 | - | - | - | 3,051.75 | 377 | 1.151 |
| Radford Army Ammunition Plant (AAP) - Industrial Facilities | - | - | - | - | - | - | - | - | 0.053 | - | - | 0.265 | - | - | - | - | - | 0.265 |
| Engineering Services | - | - | 0.253 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 276.903 | - | - | 152.758 | - | - | 6.337 | - | - | 10.565 | - | - | - | - | - | 10.565 |
| <i>Subtotal: Flyaway Cost</i> | - | - | 276.903 | - | - | 152.758 | - | - | 6.337 | - | - | 10.565 | - | - | - | - | - | 10.565 |
| Support - Industrial Facilities Cost | | | | | | | | | | | | | | | | | | |
| Radford Army Ammunition Plant (AAP) | - | - | 7.010 | - | - | 7.120 | - | - | - | - | - | - | - | - | - | - | - | - |
| Equipment Acquisition or Modernization | - | - | 3.414 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Industrial Facilities Cost</i> | - | - | 10.424 | - | - | 7.120 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 14.082 | - | - | 4.574 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 14.082 | - | - | 4.574 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types |
| | | Item Number / Title [DODIC]: E37413 / Aviation Rocket Procurement, Guided |
| ID Code (A=Service Ready, B=Not Service Ready) : | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Support - Program Management Cost | | | | | | | | | | | | | | | | | | |
| Government Management | - | - | 17.357 | - | - | 4.364 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Program Management Cost</i> | - | - | 17.357 | - | - | 4.364 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 318.765 | - | - | 168.815 | - | - | 6.337 | - | - | 10.565 | - | - | - | - | - | 10.565 |

Remarks:

The Program Office is under a Section 806 of the National Defense Authorization Act for Fiscal Year 1999 (Public Law 105-261) restriction to procure MK90 Propellant Grain from Radford Army Ammunition Plant to maintain a facility, producer, manufacturer, or supplier for an essential item of ammunition.

FY21 hardware strategy changed to move Support - Industrial Facilities Costs to recurring hardware unit cost. Strategy directed by Joint Program Executive Office Armaments & Ammunition. This cost is shared over all customers in proportion with the produced at Radford Army Ammunition Plant.

The hardware unit cost is based on combined United States Army, other services, and FMS procurement being at minimum sustainment rate versus economic ordering quantity.

(t) indicates the presence of a P-5a

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|--|--|--|--|--|--|--|---|--|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types | | | | Item Number / Title [DODIC]: E37413 / Aviation Rocket Procurement, Guided | | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------|-------------|------|--------------------------|--------------------------------------|-----------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Complete Round ^(†) | | 2019 | BAE Systems / Nashua, NH | SS / FFP | Pax River, MD | Mar 2019 | Jun 2020 | 4,880 | 25,350.87 | Y | | |
| Complete Round ^(†) | | 2020 | BAE Systems / Nashua, NH | SS / FFP | Pax River, MD | Mar 2020 | Apr 2021 | 6,573 | 21,944.01 | Y | | |
| Complete Round ^(†) | ✓ | 2021 | BAE Systems / Nashua, NH | SS / FFP | Pax River, MD | May 2021 | Apr 2022 | 237 | 23,800.29 | Y | | |
| Complete Round ^(†) | | 2022 | BAE Systems / Nashua, NH | SS / FFP | Pax River, MD | May 2022 | Apr 2023 | 377 | 24,267.11 | Y | | |

^(†) indicates the presence of a P-21

- Remarks:**
- QTY EA for delivery schedule.
 - Contract managed by Navy

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|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|----------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | | | | | | | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types | | | | | | | | | | Item Number / Title [DODIC]: E37413 / Aviation Rocket Procurement, Guided | | | | | | | | | |

| O C O # | | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2018 | BAL DUE AS OF 1 OCT | Fiscal Year 2019 | | | | | | | | | | | | Fiscal Year 2020 | | | | | | | | | | | | BALANCE |
|---------|--|---------|----|---------|----------|----------------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| | | | | | | | | Calendar Year 2019 | | | | | | | | | | | | Calendar Year 2020 | | | | | | | | | | | | |
| | | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | |

Complete Round

Prior Years Deliveries: 7289

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|------|------|-------|---|-------|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|-------|-------|-------|
| 1 | 2019 | ARMY | 4,880 | 0 | 4,880 | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 | 1,200 | 1,280 | 2,390 | 0 |
| 1 | 2020 | ARMY | 6,573 | 0 | 6,573 | | | | | | | | | | | | | | | | | A | - | - | - | - | - | - | - | - | - | - | - | - | 6,573 |
| ✓ 1 | 2021 | ARMY | 237 | 0 | 237 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 237 | |
| 1 | 2022 | ARMY | 377 | 0 | 377 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 377 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |
|--|--|--|--|--|--|--|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | | | | | | | | | | | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types | | | | | | | | | | | | | | Item Number / Title [DODIC]: E37413 / Aviation Rocket Procurement, Guided | | | | | | | | | | | | | |

| Cost Elements (Units in Each) | | | | | | Fiscal Year 2021 | | | | | | | | | | | | | | Fiscal Year 2022 | | | | | | | | | | | | | | B A L A N C E | |
|----------------------------------|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----|-----|---|---------------------------------|--|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2020 | BAL DUE AS OF 1 OCT | Calendar Year 2021 | | | | | | | | | | | | | | Calendar Year 2022 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |
| Complete Round | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 7289 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2019 | ARMY | 4,880 | 4,880 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | |
| | 1 | 2020 | ARMY | 6,573 | 0 | 6,573 | - | - | - | - | - | - | 1 | 803 | 1 | 963 | 3 | 671 | 403 | 3 | 1,603 | 3 | 1,362 | 3 | 754 | | | | | | | | 0 | | |
| ✓ | 1 | 2021 | ARMY | 237 | 0 | 237 | | | | | | | | A - | - | - | - | - | - | - | - | - | - | - | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 117 | | | |
| | 1 | 2022 | ARMY | 377 | 0 | 377 | | | | | | | | | | | | | | | | | | | | | | | | | | 377 | | | |

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | | | | | | | | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types | | | | | | | | | | Item Number / Title [DODIC]: E37413 / Aviation Rocket Procurement, Guided | | | | | | | | | |

| Cost Elements <i>(Units in Each)</i> | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | | | Fiscal Year 2024 | | | | | | | | | | | | | | B A L A N C E |
|---|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|--|---------------------------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2022 | BAL DUE AS OF 1 OCT | Calendar Year 2023 | | | | | | | | | | | | | | Calendar Year 2024 | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | |
| Complete Round | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 7289 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2019 | ARMY | 4,880 | 4,880 | 0 | | | | | | | | | | | | | | | | | | | | | | | | 0 | | | | | | |
| 1 | 2020 | ARMY | 6,573 | 6,573 | 0 | | | | | | | | | | | | | | | | | | | | | | | | 0 | | | | | | |
| ✓ 1 | 2021 | ARMY | 237 | 120 | 117 | 20 | 20 | 20 | 20 | 20 | 17 | | | | | | | | | | | | | | | | | | 0 | | | | | | |
| 1 | 2022 | ARMY | 377 | 0 | 377 | - | - | - | - | - | - | 32 | 32 | 32 | 32 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 32 | | | | 0 | | | | | | |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | |

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| | | |
|--|--|---|
| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 45 | | P-1 Line Item Number / Title: 3246E37300 / Rocket, Hydra 70, All Types |
| | | Item Number / Title [DODIC]: E37413 / Aviation Rocket Procurement, Guided |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Year) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|------------------------------|--------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | BAE Systems - Nashua, NH | 2,000 | 12,000 | 25,000 | 0 | 6 | 11 | 17 | 0 | 2 | 11 | 13 |

Remarks:
Guidance systems are procured on a Navy contract.

APKWS production rates increased to accommodate increased warfighter operational usage. Minimum Sustaining Rate is satisfied by multi-service procurements. Maximum production rate is based on two shifts and does not include the potential for surge capability.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | P-1 Line Item Number / Title: 2420E61000 / CAD/PAD, All Types |
|--|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|--------------|--------------|--------------|-------------|---------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 148.618 | 7.595 | 8.891 | 6.549 | - | 6.549 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 148.618 | 7.595 | 8.891 | 6.549 | - | 6.549 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 148.618 | 7.595 | 8.891 | 6.549 | - | 6.549 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line is for safety critical Cartridge Actuated Devices (CAD) and Propellant Actuated Devices (PAD), which are used on rotary winged Army aircraft. CAD/PADs support aircraft escape, fire suppression, and jettison systems. Items are subject to shelf and service life restrictions and, therefore, require replacement at specified intervals.

CAD/PAD devices are procured in accordance with their shelf/service life and are made up of, but no limited to: MS81-87 Shielded Det Cord; MS94-97 Canopy Egress Assembly; MS91-92 Flexible Det Cord; MT06/DWEA Initiator Cartridge; SP02/03 Det Cord Assembly; WB53/MT20/TY60 Fire Bottle Cartridge; MD66/JM92 Stores Release Cartridge; MJ20 Thruster Assembly and Cartridge; MJ20 Inert Thruster without Cartridge; MJ21 Impulse Cartridge; MU02 Hoist Cutter Cartridge; MU34 Hoist Refire Kit; M514 Hoist Cutter Cartridge; DWGS Cable Cutter Assembly; JM96 Chinook Impulse Cartridge; MD65 Initiator Cartridge - Air Volcano stores release.

CAD/PAD Procurements are awarded by the Navy Contracting Center in Mechanicsburg, PA and the Naval Surface Warfare Center (NSWC) in Indian Head.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | P-1 Line Item Number / Title: 2420E61000 / CAD/PAD, All Types |
|--|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|--|--|--|--|--|--|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | EA0003 / CAD/PAD, All Other | P-5a | | | - / 148.618 | - / 7.595 | - / 8.891 | - / 6.549 | - / - | - / 6.549 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 148.618 | - / 7.595 | - / 8.891 | - / 6.549 | - / - | - / 6.549 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
The FY 2022 Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base procurement dollars of \$6.549M will be used for procurement of various CAD/PADs that need replacement due to limited shelf life and/or install life. The FY 2022 program is required to assure availability of replacement items when needed or for mandatory "time-change" procedures for already installed devices to avoid grounding aircraft or rendering aircraft partially mission capable. This funding is required to support fleet requirements that take into account the aircraft inventory, maintenance cycle, shelf/install life, procurement lead-times, and expenditures. Due the variability of these factors, actual CAD/PAD end items and the quantities procured may vary.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 2420E61000 / CAD/PAD, All Types | | | Item Number / Title [DODIC]: EA0003 / CAD/PAD, All Other | | |
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 148.618 | 7.595 | 8.891 | 6.549 | - | 6.549 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 148.618 | 7.595 | 8.891 | 6.549 | - | 6.549 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 148.618 | 7.595 | 8.891 | 6.549 | - | 6.549 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| MS81 Shielded Det Cord ^(†) | - | - | - | 755.02 | 565 | 0.427 | - | - | - | - | - | - | - | - | - | - | - | - |
| MS82 Shielded Det Cord ^(†) | - | - | - | 745.96 | 520 | 0.388 | - | - | - | - | - | - | - | - | - | - | - | - |
| MS83 Shielded Det Cord ^(†) | - | - | - | 755.02 | 565 | 0.427 | - | - | - | - | - | - | - | - | - | - | - | - |
| MS85 Shielded Det Cord ^(†) | - | - | - | 745.96 | 520 | 0.388 | - | - | - | - | - | - | - | - | - | - | - | - |
| MS86 Shielded Det Cord ^(†) | - | - | - | 754.97 | 566 | 0.427 | - | - | - | - | - | - | - | - | - | - | - | - |
| MS87 Shielded Det Cord ^(†) | - | - | - | 754.97 | 566 | 0.427 | - | - | - | - | - | - | - | - | - | - | - | - |
| MS82 UEES1 Shielded Det Cord ^(†) | - | - | - | - | - | - | 876.75 | 210 | 0.184 | - | - | - | - | - | - | - | - | - |
| MS85 UEES1 Shielded Det Cord ^(†) | - | - | - | - | - | - | 876.75 | 210 | 0.184 | - | - | - | - | - | - | - | - | - |
| JN79 Canopy Egress Assembly ^(†) | 9,622.73 | 132 | 1.270 | - | - | - | 11,025.00 | 100 | 1.103 | - | - | - | - | - | - | - | - | - |
| JN80 Canopy Egress Assembly ^(†) | 9,622.73 | 132 | 1.270 | - | - | - | 11,025.00 | 100 | 1.103 | - | - | - | - | - | - | - | - | - |

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|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | | | | P-1 Line Item Number / Title: 2420E61000 / CAD/PAD, All Types | | | | | | Item Number / Title [DODIC]: EA0003 / CAD/PAD, All Other | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| JN81 Canopy Egress Assembly ^(†) | 9,622.73 | 132 | 1.270 | - | - | - | 11,025.00 | 100 | 1.103 | - | - | - | - | - | - | - | - | - |
| JN82 Canopy Egress Assembly ^(†) | 9,622.73 | 132 | 1.270 | - | - | - | 11,025.00 | 100 | 1.103 | - | - | - | - | - | - | - | - | - |
| XW55 Delay Initiator | 1,251.56 | 751 | 0.940 | - | - | - | 1,671.08 | 250 | 0.418 | - | - | - | - | - | - | - | - | - |
| MJ21 Impulse Cartridge | 340.00 | 300 | 0.102 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MS94 Window Cutting Assembly ^(†) | 2,737.64 | 412 | 1.128 | 3,571.46 | 212 | 0.757 | - | - | - | 4,071.65 | 100 | 0.407 | - | - | - | 4,071.65 | 100 | 0.407 |
| MS95 Window Cutting Assembly ^(†) | 2,810.16 | 489 | 1.374 | 3,571.46 | 212 | 0.757 | - | - | - | 4,071.65 | 100 | 0.407 | - | - | - | 4,071.65 | 100 | 0.407 |
| MS96 Window Cutting Assembly ^(†) | 2,827.65 | 469 | 1.326 | 3,571.46 | 212 | 0.757 | - | - | - | 4,071.65 | 100 | 0.407 | - | - | - | 4,071.65 | 100 | 0.407 |
| MS97 Window Cutting Assembly ^(†) | 2,858.51 | 377 | 1.078 | 3,571.46 | 211 | 0.754 | - | - | - | 4,071.65 | 100 | 0.407 | - | - | - | 4,071.65 | 100 | 0.407 |
| DWEA Initiator Cartridge ^(†) | 798.00 | 400 | 0.319 | - | - | - | - | - | - | 1,098.08 | 230 | 0.253 | - | - | - | 1,098.08 | 230 | 0.253 |
| MS92 Canopy Removal FCDC | 1,040.00 | 450 | 0.468 | - | - | - | 1,144.00 | 400 | 0.458 | - | - | - | - | - | - | - | - | - |
| JM96 Chinook Impulse Cartridge ^(†) | 500.00 | 178 | 0.089 | 623.90 | 200 | 0.125 | 594.00 | 300 | 0.178 | 718.95 | 400 | 0.288 | - | - | - | 718.95 | 400 | 0.288 |
| TY60 Chinook Fire Bottle Cartridge | 600.00 | 225 | 0.135 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| SP02/03 UEES Det Cord Assembly | 988.61 | 163 | 0.161 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| SP02 UEES 1 ^(†) | - | - | - | - | - | - | 973.50 | 125 | 0.122 | - | - | - | - | - | - | - | - | - |
| SP02 UEES 2 ^(†) | - | - | - | - | - | - | 973.50 | 125 | 0.122 | - | - | - | - | - | - | - | - | - |
| SP03 UEES 1 ^(†) | - | - | - | - | - | - | 973.50 | 125 | 0.122 | - | - | - | - | - | - | - | - | - |
| SP03 UEES 2 ^(†) | - | - | - | - | - | - | 973.50 | 125 | 0.122 | - | - | - | - | - | - | - | - | - |
| MS91 Canopy Removal FCDC | - | - | - | - | - | - | 1,144.00 | 400 | 0.458 | - | - | - | - | - | - | - | - | - |
| MT06 Initiator JAU-59A ^(†) | - | - | - | - | - | - | 1,086.80 | 480 | 0.522 | 1,331.00 | 125 | 0.166 | - | - | - | 1,331.00 | 125 | 0.166 |
| MT20 Ctg Aircraft Fire Extinguisher ^(†) | - | - | - | - | - | - | 412.61 | 300 | 0.124 | 580.80 | 200 | 0.116 | - | - | - | 580.80 | 200 | 0.116 |
| WB53 ^(†) | - | - | - | - | - | - | - | - | - | 473.84 | 800 | 0.379 | - | - | - | 473.84 | 800 | 0.379 |

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|--|--|--|--|--|--|---|--|--|--|------------------------|--|--|--|--|--|--|--|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | | | | P-1 Line Item Number / Title: 2420E61000 / CAD/PAD, All Types | | | | | | Item Number / Title [DODIC]: EA0003 / CAD/PAD, All Other | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | | | | | | | MDAP/MAIS Code: | | | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| MD65 Release Cartridge ^(†) | - | - | - | 18.55 | 1,000 | 0.019 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 12.201 | - | - | 5.652 | - | - | 7.422 | - | - | 2.830 | - | - | - | - | - | 2.830 |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Prior Years (Multiple DODICs) | - | - | 132.250 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MJ20/MJ21 Decoupling Project | - | - | 0.147 | - | - | - | - | - | 0.158 | - | - | 0.150 | - | - | - | - | - | 0.150 |
| MD66 PIP for JM92 | - | - | - | - | - | - | - | - | 0.070 | - | - | 0.125 | - | - | - | - | - | 0.125 |
| JN79-82 Startup Costs | - | - | 1.142 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| UEES PIP Procurements | - | - | - | - | - | 1.943 | - | - | - | - | - | 2.099 | - | - | - | - | - | 2.099 |
| <i>Subtotal: Non Recurring Cost</i> | - | - | 133.539 | - | - | 1.943 | - | - | 0.228 | - | - | 2.374 | - | - | - | - | - | 2.374 |
| <i>Subtotal: Hardware Cost</i> | - | - | 145.740 | - | - | 7.595 | - | - | 7.650 | - | - | 5.204 | - | - | - | - | - | 5.204 |
| Support - Hardware Analysis Cost | | | | | | | | | | | | | | | | | | |
| Hardware Analysis | - | - | 0.040 | - | - | - | - | - | 0.030 | - | - | 0.030 | - | - | - | - | - | 0.030 |
| <i>Subtotal: Support - Hardware Analysis Cost</i> | - | - | 0.040 | - | - | - | - | - | 0.030 | - | - | 0.030 | - | - | - | - | - | 0.030 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.838 | - | - | - | - | - | 1.211 | - | - | 1.315 | - | - | - | - | - | 1.315 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 2.838 | - | - | - | - | - | 1.211 | - | - | 1.315 | - | - | - | - | - | 1.315 |
| Gross/Weapon System Cost | - | - | 148.618 | - | - | 7.595 | - | - | 8.891 | - | - | 6.549 | - | - | - | - | - | 6.549 |

Remarks:

All CAD/PADs requirements are based are determined by analyzing number of Army aircraft, on-hand inventory, actual expenditures, shelf life, install life, expiration dates, procurement lead times, and projected contract delivery dates. The number of CAD/PADs procured is to ensure adequate assets are available for fleet support and operational readiness.

Footnotes:

- 1) Starting FY 2020, CAD/PAD additionally includes recurring Cost Analysis and Procurement History and Planning details that were not included FY 2019 and prior.
- 2) UEES PIP Procurements - Funding formally for Underwater Emergency Egress System procurements
- 3) FY 2020-2022 Hardware Analysis are assessed on two different CAD/PAD end items.
- 4) Production Engineering funding provided to Naval Surface Warfare Center - Indian Head Explosive Ordinance Disposal Technology Division.

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2022 Army **Date:** May 2021

| | | |
|--|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2420E61000 / CAD/PAD, All Types | Item Number / Title [DODIC]: EA0003 / CAD/PAD, All Other |
|--|---|--|

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|-------------------------------------|-------------|------|---------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| MS81 Shielded Det Cord | | 2020 | UTC Aerospace Systems / Fairfield, CA | C / FFP | NAVSUP | Jul 2020 | Jul 2021 | 565 | 755.02 | Y | | |
| MS82 Shielded Det Cord | | 2020 | UTC Aerospace Systems / Fairfield, CA | C / FFP | NAVSUP | Jul 2020 | Jul 2021 | 520 | 745.96 | Y | | |
| MS83 Shielded Det Cord | | 2020 | UTC Aerospace Systems / Fairfield, CA | C / FFP | NAVSUP | Jul 2020 | Jul 2021 | 565 | 755.02 | Y | | |
| MS85 Shielded Det Cord | | 2020 | UTC Aerospace Systems / Fairfield, CA | C / FFP | NAVSUP | Jul 2020 | Jul 2021 | 520 | 745.96 | Y | | |
| MS86 Shielded Det Cord | | 2020 | UTC Aerospace Systems / Fairfield, CA | C / FFP | NAVSUP | Jul 2020 | Jul 2021 | 566 | 754.97 | Y | | |
| MS87 Shielded Det Cord | | 2020 | UTC Aerospace Systems / Fairfield, CA | C / FFP | NAVSUP | Jul 2020 | Jul 2021 | 566 | 754.97 | Y | | |
| MS82 UEES1 Shielded Det Cord | | 2021 | TBD / TBD | C / FFP | NAVSUP | May 2021 | May 2022 | 210 | 876.75 | Y | | |
| MS85 UEES1 Shielded Det Cord | | 2021 | TBD / TBD | C / FFP | NAVSUP | May 2021 | May 2022 | 210 | 876.75 | Y | | |
| JN79 Canopy Egress Assembly | | 2021 | Pacific Scientific / Hollister, CA | SS / FFP | NAVSUP | May 2021 | May 2022 | 100 | 11,025.00 | Y | | |
| JN80 Canopy Egress Assembly | | 2021 | Pacific Scientific / Hollister, CA | SS / FFP | NAVSUP | May 2021 | May 2022 | 100 | 11,025.00 | Y | | |
| JN81 Canopy Egress Assembly | | 2021 | Pacific Scientific / Hollister, CA | SS / FFP | NAVSUP | May 2021 | May 2022 | 100 | 11,025.00 | Y | | |
| JN82 Canopy Egress Assembly | | 2021 | Pacific Scientific / Hollister, CA | SS / FFP | NAVSUP | May 2021 | May 2022 | 100 | 11,025.00 | Y | | |
| MS94 Window Cutting Assembly | | 2020 | Pacific Scientific / Hollister, CA | C / FFP | NAVSUP | Aug 2020 | Aug 2021 | 212 | 3,571.46 | Y | | |
| MS94 Window Cutting Assembly | | 2022 | TBD / TBD | C / IDIQ | NAVSUP | Mar 2022 | Mar 2023 | 100 | 4,071.65 | Y | | |
| MS95 Window Cutting Assembly | | 2020 | Pacific Scientific / Hollister, CA | C / FFP | NAVSUP | Aug 2020 | Aug 2021 | 212 | 3,571.46 | Y | | |
| MS95 Window Cutting Assembly | | 2022 | TBD / TBD | C / IDIQ | NAVSUP | Mar 2022 | Mar 2023 | 100 | 4,071.65 | Y | | |
| MS96 Window Cutting Assembly | | 2020 | Pacific Scientific / Hollister, CA | C / FFP | NAVSUP | Aug 2020 | Aug 2021 | 212 | 3,571.46 | Y | | |
| MS96 Window Cutting Assembly | | 2022 | TBD / TBD | C / IDIQ | NAVSUP | Mar 2022 | Mar 2023 | 100 | 4,071.65 | Y | | |
| MS97 Window Cutting Assembly | | 2020 | Pacific Scientific / Hollister, CA | C / FFP | NAVSUP | Aug 2020 | Aug 2021 | 211 | 3,571.46 | Y | | |
| MS97 Window Cutting Assembly | | 2022 | TBD / TBD | C / IDIQ | NAVSUP | Mar 2022 | Mar 2023 | 100 | 4,071.65 | Y | | |
| DWEA Initiator Cartridge | | 2022 | TBD / TBD | C / FFP | NAVSUP | Mar 2022 | Mar 2023 | 230 | 1,098.08 | Y | | |
| JM96 Chinook Impulse Cartridge | | 2020 | Stratus / New Orleans, LA | C / FFP | NAVSUP | Jul 2020 | Jul 2021 | 200 | 623.90 | N | | |
| JM96 Chinook Impulse Cartridge | | 2022 | TBD / TBD | C / FFP | NAVSUP | Mar 2022 | Mar 2023 | 400 | 718.95 | Y | | |
| SP02 UEES 1 | | 2021 | TBD / TBD | C / FFP | NAVSUP | May 2021 | May 2022 | 125 | 973.50 | Y | | |
| SP02 UEES 2 | | 2021 | TBD / TBD | C / FFP | NAVSUP | May 2021 | May 2022 | 125 | 973.50 | Y | | |
| SP03 UEES 1 | | 2021 | TBD / TBD | C / FFP | NAVSUP | May 2021 | May 2022 | 125 | 973.50 | Y | | |
| SP03 UEES 2 | | 2021 | TBD / TBD | C / FFP | NAVSUP | May 2021 | May 2022 | 125 | 973.50 | Y | | |
| MT06 Initiator JAU-59A | | 2022 | TBD / TBD | C / IDIQ | NAVSUP | Mar 2022 | Mar 2023 | 125 | 1,331.00 | Y | | |
| MT20 Ctg Aircraft Fire Extinguisher | | 2022 | TBD / TBD | C / FFP | NAVSUP | Mar 2022 | Mar 2023 | 200 | 580.80 | Y | | |
| WB53 | | 2022 | TBD / TBD | C / FFP | NAVSUP | Mar 2022 | Mar 2023 | 800 | 473.84 | Y | | |

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|---|--------------------------------------|-----------------|---------------|------------------------------|--|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 2420E61000 / CAD/PAD, All Types | | | | | Item Number / Title [DODIC]: EA0003 / CAD/PAD, All Other | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| MD65 Release Cartridge | | 2020 | AMETEK AMERON, LLC / Baldwin Park, CA | C / FFP | NAVSUP | Jan 2021 | Jan 2022 | 1,000 | 18.55 | Y | | |

Remarks:
 All procurement contracts are awarded by Naval Surface Warfare Center (NSWC) at Indian Head. This funding is required to support fleet requirements that take into account the aircraft inventory, maintenance cycle, shelf/install life, procurement lead-times, and expenditures. Due the variability of these factors, actual CAD/PAD end items procured may vary.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition

P-1 Line Item Number / Title:
2790E55400 / Demolition Munitions, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|---------------|---------------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 580.032 | 51.651 | 54.043 | 27.904 | - | 27.904 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 580.032 | 51.651 | 54.043 | 27.904 | - | 27.904 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 580.032 | 51.651 | 54.043 | 27.904 | - | 27.904 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes Demolition Munitions, All Types.

(E45404) The M17A1 Receiver, Radio Frequency Remote Activation Munition System (RF-RAMS) is a single use item, which is capable of functioning non electric blasting caps or detonation cord. The M17A1 provides the un-tethered capability to wirelessly function/initiate demolition charges or munitions up to and beyond 5 KM line-of-sight/non line-of-sight, once it receives the correct programmed coded signal from the RF-RAMS transmitter. The Receiver is programmed in the field by an RF-RAMS Transmitter and subsequently responds only to that transmitter. This item is Code A, approved for service use.

(E50601) Charge Demolition Block Comp C-4 1-1/4 LB M112 is the primary demolition explosive used by the U.S. Army. The M112 Demolition Block is used for general demolition and, in particular, for destruction of captured enemy ammunition. The block demolition charge consists of 1-1/4 pounds of composition C-4 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.

(E50703) Bangalore Torpedo 2.5 FT M1A3 is used to clear paths through barbed wire entanglements and minefields. Bangalore torpedoes are also used for clearing heavy undergrowth of bamboo and may also be used as a cratering charge, especially in connection with shaped charges against reinforced concrete targets. This item is Code A, approved for service use.

(E51300) 40LB Cratering Demolition Block Charge is a demolition charge designed to destroy roads, bridge abutments, runways, buildings, fortifications and other concrete structures. It uses a low velocity explosive which destroys by a lifting and heaving motion rather than the cutting action of high velocity charges. This item is Code A, approved for service use.

(E51400) M186 Demolition Charge is a 50 foot roll of flexible explosive. It is 3 inches wide and 1/4 inch thick. It can be easily cut and formed into various shapes and is primarily used as a cutting charge. This item is Code A, approved for service use.

(E52000) The M4A1 Selectable Light Weight Attack Munition (SLAM) is a multipurpose munition designed to be readily portable and hand-emplaced against lightly armored vehicles, parked aircraft, wheeled or tracked support vehicles, and ammunition or fuel storage sites. The SLAM can be used either day or night during all weather conditions. Man-in-the-loop is required in all attack modes. The improved M4A1 SLAM has several producibility and safety enhancements; these include charges to the mode/time selector switch, housing base and cover assembly and passive sensor assembly. A battery bleed resistor was added for improved safety. This item is Code A, approved for service use.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |

(E52500) Cap Blasting Electric M6 is used to initiate high explosives. It is initiated by an electrical charge from a blasting machine or other source of electric power. Blasting cap M6 consists of a base charge of Rapid Detonating Explosive (RDX), an intermediate charge of lead azide and an ignition charge of smokeless powder, potassium chlorate and lead salt of dinitro cresol in an aluminum alloy cup. Two 12-foot lead wires, connected by a bridge wire in the ignition charge, extend through a rubber plug assembly in the open end of the cup. This item is Code A, approved for service use.

(E53200) Charge Demolition Shaped M3 40 pound is used to blast craters in paved and unpaved roads and to bore holes in metals, masonry or concrete. It contains a 15-inch stand-off, 29.5 pound Comp B main charge and a 0.11 pound Comp A3 booster. This item is Code A, approved for service use.

(E54100) Detonating Cord is used to prime and detonate explosive charges. Unlike the time fuze, which burns slowly, detonating cord burns almost instantaneously. It is used to link a series of near simultaneous charges. The Type 1, Class E detonating cord 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. The plastic outer cover is smooth and colored olive drab. This item is Code A, approved for service use.

(E56500) Time Blasting Fuze M700 is used to initiate an M7 non-electric blasting cap, which in turn initiates a main charge. It is ignited with an M60 or M81 firing device. The fuze is olive drab with a single yellow band spaced every 18 inches, and a double yellow band spaced every 90 inches to enable the soldier to cut the desired length of fuze without additional measuring tools. The soldier attaches the fuze to the blasting cap with crimping pliers. This item is Code A, Approved for service use.

(E59100) CTG, .50cal Blnk Elec Initiated, MK209 Series (EOD). This cartridge is electrical impulsed initiated and used in Explosive Ordnance Disposal (EOD) tools and equipment. This is a training standard item used in training and combat. It is an electrically initiated, gas producing device. It is initiated with an MK1-2 squib in place of the percussion primer. This item is Code A, approved for service use.

(E60200) Cutter CTG Actuated 2 Sec Delay M21 is a cartridge actuated device that is used in aerial delivery systems for cargo. It severs a reefing line which allows a parachute to fully deploy. The cutter is installed in a mounting bracket which is attached to the parachute. Major components consist of a case, firing pin assembly, lanyard, knife assembly, delay assembly, and cotter pin. This item is Code A, approved for service use.

(E78201) Charge Demolition M980 Sheet Explosive, PBXW-202 is a 20 pound, 38 foot roll of flexible explosive. It is 10 inches wide and .083 inches thick. It can be easily cut and formed into various shapes and is primarily used as a cutting charge. This item is Code A, approved for service use.

(E81302) Cap Blasting Non-Elec, W/30 ft Shock Tube is part of the family of Modernized Demolition Initiators (MDI). It consists of a blasting cap which is factory sealed to a length of shock tube. The tube is activated using an M81 igniter. A shock wave travels the length of the tube, with a delay measured in milliseconds, and ignites the blasting cap which in turn initiates the main charge. The MDI is not susceptible to electrostatic discharge or Radio Frequency (RF) jamming. The 30 foot length is generally used as a linking charge for a series of demolitions. This item is Code A, approved for service use.

(E81306) 70 FT Non-Elec Shock Tube Blast Cap M15 is part of the Modernized Demolition Initiators (MDI). The M15 is a non-electric 70 foot length of shock tube with slightly different size factory crimped detonators at each end containing different delay elements. The shorter detonator is a low strength, 25 milliseconds delay designed to initiate other pieces of shock tube in the priming system, while the longer detonator is a high strength, 200 millisecond delay designed to initiate explosives. Both detonators are also slightly larger in diameter than a standard blasting cap and do not fit into a standard cap well. The M15 has two flags; a YELLOW flag (2 meters from the high strength cap) and a RED flag (1 meter from the high strength cap). The M15 also has a special plastic holder attached to the shorter detonator to facilitate connection to other shock tubes. This item is Code A, approved for service use.

(E81307) Igniter, Time Fuze and Shock Tube, M81 is part of the family of Modernized Demolition Initiators (MDI). The M81 is a device, hand held by the individual Soldier, with a small primer charge that will activate the M700 Time Fuze as well as a shock tube. It is the primary device for all non-electrical demolition initiation. This item is Code A, approved for service use.

(E99903) Blast Cap, Non-Elec: 500Ft Minitube, M21 is part of the family of Modernized Demolition Initiators (MDI). It consists of an initiating component used to activate standard military explosives and demolition devices. The MDI is not susceptible to electrostatic discharge or Radio Frequency (RF) jamming. This item is Code A, approved for service use.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(E99905) Blast Cap, Non-Elec, 1000Ft Minitube, M23 is part of the family of Modernized Demolition Initiators (MDI). It consists of an initiating component used to activate standard military explosives and demolition devices. The MDI is not susceptible to electrostatic discharge or Radio Frequency (RF) jamming. This item is Code A, approved for service use.</p> | | |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition **P-1 Line Item Number / Title:** 2790E55400 / Demolition Munitions, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E45404 / Receiver, Radio Firing-Remote Actv MunSys(RF-RAMS) [MP47] | P-5a | A | | - / 13.211 | - / 10.061 | - / 3.771 | - / - | - / - | - / - |
| P-5 | E50601 / CHARGE, Demo Blk Comp C-4 1-1/4 lb, M112 [M023] | | A | | - / 236.267 | - / 0.574 | - / 2.109 | - / - | - / - | - / - |
| P-5 | E50703 / DEMO KIT, BANGALORE TORPEDO, M1A3 (2.5 foot) [MP03] | | A | | - / - | - / - | - / 4.683 | - / - | - / - | - / - |
| P-5 | E51300 / CHARGE, Demo Cratering 40 lb [M039] | P-5a | A | | - / 40.560 | - / 0.410 | - / 7.962 | - / 7.757 | - / - | - / 7.757 |
| P-5 | E51400 / CHARGE, Demo, (50ft), Sheet Explosive, M186 [M060] | | A | | - / 12.531 | - / 2.056 | - / 2.466 | - / 3.661 | - / - | - / 3.661 |
| P-5 | E52000 / MUNITION, Selectable Lightweight Attack (SLAM), M4 [MP12] | P-5a | A | | - / 62.529 | - / 14.639 | - / 15.777 | - / - | - / - | - / - |
| P-5 | E52500 / CAP, Blasting Elec, M6 [M130] | | A | | - / 18.319 | - / 3.132 | - / - | - / - | - / - | - / - |
| P-5 | E53200 / CHARGE, Demo Shaped 40 lb, M3 | | A | | - / 28.336 | - / - | - / 0.398 | - / - | - / - | - / - |
| P-5 | E54100 / CORD, Detonating Type 1 [M456] | | A | | - / 33.842 | - / 2.174 | - / 2.524 | - / 2.357 | - / - | - / 2.357 |
| P-5 | E56500 / FUZE, Blasting Time, M700 [M670] | | A | | - / 5.064 | - / 0.600 | - / - | - / - | - / - | - / - |
| P-5 | E59100 / CTG, .50cal Blnk Elec Initiated, MK209 Series(EOD) [SS01] | | A | | - / 9.215 | - / 1.292 | - / - | - / - | - / - | - / - |
| P-5 | E60200 / CUTTER, Cartridge Actuated, M21, 2 Second Delay [M500] | | A | | - / 38.144 | - / 7.225 | - / 4.689 | - / 4.352 | - / - | - / 4.352 |
| P-5 | E78201 / CHARGE, Demo (38FT) Sheet Explosive, PBXW-202 [M980] | P-5a | A | | - / 6.828 | - / - | - / - | - / 5.219 | - / - | - / 5.219 |
| P-5 | E81302 / CAP, Blasting Non-Elec, w/30Ft Shock Tube [ML47] | | A | | - / 8.439 | - / - | - / 1.922 | - / - | - / - | - / - |
| P-5 | E81306 / CAP BLASTING NON-ELEC, DELAY, W/70 FT TUBE, M15 [MN07] | | A | | - / 4.111 | - / 1.178 | - / 1.501 | - / - | - / - | - / - |
| P-5 | E81307 / IGNITER, Time Fuze and Shock Tube, M81 [MN08] | | A | | - / 18.188 | - / - | - / 0.340 | - / 2.362 | - / - | - / 2.362 |
| P-5 | E99903 / CAP, Blasting Non-Elec, w/500Ft Minitube, M21 [MN88] | | A | | - / 20.841 | - / 3.421 | - / 2.035 | - / 2.196 | - / - | - / 2.196 |
| P-5 | E99905 / CAP, Blast, Non-Elec, 1000Ft Minitube, M23 [MN90] | | A | | - / 23.607 | - / 4.889 | - / 3.866 | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 580.032 | - / 51.651 | - / 54.043 | - / 27.904 | - / - | - / 27.904 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The FY 2022 Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

The FY 2022 Total Base dollars in the amount of \$27.904 million supports the procurement of seven variants of Demolitions.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |

(E45404) M17A1 Receiver, Radio Frequency Remote Activation Munition System (RF-RAMS)
This is a training standard item used in training and combat. The request supports annual training and builds a war reserve in accordance with the Army's procurement goals. E45404 has no FY 2022 funding request.
TYPE CLASSIFICATION DATE: 2006

(E50601) Charge Demo BLK Comp C-4 1-1/4 LB M112
This is a training standard item used in training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. E50601 has no FY 2022 funding request.
TYPE CLASSIFICATION DATE: 1964

(E50703) Bangalore Torpedo 2.5 FT M1A3
This is a training standard item used in training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. E50703 has no FY 2022 funding request.
TYPE CLASSIFICATION DATE: 1958

(E51300) 40LB Cratering Demolition Block Charge
This is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$7.757 million supports the production of 5,199 Cratering Demolition Block Charges. In FY 2022, funding in the amount of \$0.113 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments.
TYPE CLASSIFICATION DATE: 1958

(E51400) M186 Demolition Charge
This is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$3.661 million supports the production of 66,190 Demolition Charges.
TYPE CLASSIFICATION DATE: 1968

(E52000) Selectable Light Weight Attack Munition (SLAM)
This is a training standard item used in training and combat. The request supports annual training and builds a war reserve in accordance with the Army's procurement goals. E52000 has no FY 2022 funding request.
TYPE CLASSIFICATION DATE: 2011

(E52500) Cap, Blasting Electric M6
This is a training standard item used in training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. E52500 has no FY 2022 funding request.
TYPE CLASSIFICATION DATE: January 1960

(E53200) Charge Demolition Shaped M3
This is a training standard item used in training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. E53200 has no FY 2022 funding request.
TYPE CLASSIFICATION DATE: 1960

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>(E54100) Detonating Cord, Type 1 This is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$2.357 million supports the production of 4,245,422 Detonating Cords. TYPE CLASSIFICATION DATE: 1958</p> <p>(E56500) Time Blasting Fuze M700 This is a training standard item used in both training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. E56500 has no FY 2022 funding request. TYPE CLASSIFICATION DATE: January 1958</p> <p>(E59100) CTG, .50cal Blnk Elec Initiated, MK209 Series (EOD) This is a training standard item used in both training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. E59100 has no FY 2022 funding request. TYPE CLASSIFICATION DATE: EOD Item Navy Configured</p> <p>(E60200) Cutter CTG Actuated 2 Sec delay M21 This is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$4.352 million supports the production of 6,176 Cutters. In FY 2022 funding in the amount of \$0.113 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments. TYPE CLASSIFICATION DATE: 1980</p> <p>(E78201) M980 Demolition Charge, 38 foot Sheet Explosive This is a training standard item used in training and combat. FY 2022 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$5.219 million supports production of 94,058 feet of Sheet Explosive. This is a new start in FY 2022. TYPE CLASSIFICATION DATE: EOD Item Navy Configured</p> <p>(E81302) Cap Blasting Non-Electric, W/30 ft Shock Tube is part of the family of Modernized Demolition Initiators. This is a training standard item used in training and combat. The request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. E81302 has no FY 2022 funding request. TYPE CLASSIFICATION DATE: April 1996</p> <p>(E81306) 70 FT Non-Elec Shock Tube Blast Cap M15 This is a training standard item used in training and combat. The request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. E81306 has no FY 2022 funding request. TYPE CLASSIFICATION DATE: April 1996</p> <p>(E81307) Igniter, Time Fuze and Shock Tube, M81 This is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$2.362 million supports procurement of 112,573 Igniters. TYPE CLASSIFICATION DATE: April 1996</p> <p>(E99903) Blast Cap, Non-Elec: 500Ft Minitube, M21 is part of the family of Modern Demolition Initiators (MDI).</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>This is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$2.196 million supports production of 24,874 Blasting Caps. TYPE CLASSIFICATION DATE: April 1996</p> <p>(E99905) Blast Cap, Non-Elec, 1000Ft Minitube, M23 is part of the family of Modern Demolition Initiators (MDI). This is a training standard item used in training and combat. The request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. E99905 has no FY 2022 funding request. TYPE CLASSIFICATION DATE: April 1996</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E45404 / Receiver, Radio Firing-Remote Actv MunSys(RF-RAMS) [MP47] |

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|---|--|--------------------|----------------|------------------------|---------------------|--------------------|----------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 13.211 | 10.061 | 3.771 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 13.211 | 10.061 | 3.771 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 13.211 | 10.061 | 3.771 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 5,982K | 2 | 11.963 | 2,364.45 | 3,567 | 8.434 | 2,430.92 | 1,061 | 2.579 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 11.963 | - | - | 8.434 | - | - | 2.579 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 11.963 | - | - | 8.434 | - | - | 2.579 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | 0.327 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | - | - | - | 0.327 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.248 | - | - | 1.300 | - | - | 1.192 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 1.248 | - | - | 1.300 | - | - | 1.192 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 13.211 | - | - | 10.061 | - | - | 3.771 | - | - | - | - | - | - | - | - | - |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|--|--------------------------------------|--------------------------|---------------|------------------------------|---|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | | | | | Item Number / Title [DODIC]: E45404 / Receiver, Radio Firing-Remote Actv MunSys(RF-RAMS) [MP47] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND | | 2020 | MNEMONICS, INC. / MELBOURNE, FL | C / FFP | PICATINNY ARSENAL, NJ | Feb 2021 | Aug 2022 | 3,567 | 2,364.45 | Y | | |
| COMPLETE ROUND | | 2021 | TBS / TBS | C / FFP | PICATINNY ARSENAL, NJ | Apr 2021 | Oct 2022 | 1,061 | 2,430.92 | Y | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E50601 / CHARGE, Demo Blk Comp C-4 1-1/4 lb, M112 [M023] |

| | | | | | | | |
|---|--|--------------------|----------------|------------------------|---------------------|--------------------|----------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 236.267 | 0.574 | 2.109 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 236.267 | 0.574 | 2.109 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 236.267 | 0.574 | 2.109 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | 250.28 | 54,917 | 13.745 | 8.60 | 28 | *.*** | 8.76 | 41,919 | 0.367 | - | - | - | - | - | - | - | - | - |
| COMP C-4 CLASS 3 | 2,964.95 | 72,490 | 214.929 | 15.45 | 37 | 0.001 | 20.64 | 55,332 | 1.142 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>228.674</i> | - | - | <i>0.001</i> | - | - | <i>1.509</i> | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | <i>228.674</i> | - | - | <i>0.001</i> | - | - | <i>1.509</i> | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 7.582 | - | - | 0.571 | - | - | 0.594 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | <i>7.582</i> | - | - | <i>0.571</i> | - | - | <i>0.594</i> | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.011 | - | - | 0.002 | - | - | 0.005 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | <i>0.011</i> | - | - | <i>0.002</i> | - | - | <i>0.005</i> | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 236.267 | - | - | 0.574 | - | - | 2.109 | - | - | - | - | - | - | - | - | - |

*.*** represents funding below \$1,000.00

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E50703 / DEMO KIT, BANGALORE TORPEDO, M1A3 (2.5 foot) [MP03] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|-------------|---------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | - | 4.683 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | - | 4.683 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | - | 4.683 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | - | - | - | - | 1,592.92 | 2,593 | 4.130 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | - | - | - | - | - | - | 4.130 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | - | - | - | - | - | - | 4.130 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | 0.541 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | - | - | - | - | - | - | 0.541 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | - | - | - | 0.012 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Quality Assurance Cost | - | - | - | - | - | - | - | - | 0.012 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | 4.683 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E51300 / CHARGE, Demo Cratering 40 lb [M039] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 40.560 | 0.410 | 7.962 | 7.757 | - | 7.757 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 40.560 | 0.410 | 7.962 | 7.757 | - | 7.757 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 40.560 | 0.410 | 7.962 | 7.757 | - | 7.757 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | - | - | 13.100 | 548.07 | 91 | 0.050 | 564.54 | 5,359 | 3.025 | 575.83 | 5,199 | 2.994 | - | - | - | 575.83 | 5,199 | 2.994 |
| COMP B TYPE I GRADE A ^(†) | - | - | 17.632 | 13.52 | 3,314 | 0.045 | 13.79 | 195,174 | 2.691 | 14.07 | 189,347 | 2.664 | - | - | - | 14.07 | 189,347 | 2.664 |
| ALUMINUM POWDER FLAKED ^(†) | - | - | 1.241 | 3.28 | 962 | 0.003 | 3.57 | 56,644 | 0.202 | 3.57 | 54,953 | 0.196 | - | - | - | 3.57 | 54,953 | 0.196 |
| COMP D-2 ^(†) | - | - | 8.072 | 89.21 | 230 | 0.021 | 91.00 | 13,537 | 1.232 | 92.82 | 13,132 | 1.219 | - | - | - | 92.82 | 13,132 | 1.219 |
| <i>Subtotal: Recurring Cost</i> | - | - | 40.045 | - | - | 0.118 | - | - | 7.151 | - | - | 7.073 | - | - | - | - | - | 7.073 |
| <i>Subtotal: Hardware Cost</i> | - | - | 40.045 | - | - | 0.118 | - | - | 7.151 | - | - | 7.073 | - | - | - | - | - | 7.073 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | 0.182 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | 0.182 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.515 | - | - | 0.292 | - | - | 0.622 | - | - | 0.677 | - | - | - | - | - | 0.677 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.515 | - | - | 0.292 | - | - | 0.622 | - | - | 0.677 | - | - | - | - | - | 0.677 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | - | - | - | 0.007 | - | - | 0.006 | - | - | - | - | - | 0.006 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E51300 / CHARGE, Demo Cratering 40 lb [M039] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | - | - | - | - | - | - | 0.007 | - | - | 0.006 | - | - | - | - | - | 0.006 |
| Gross/Weapon System Cost | - | - | 40.560 | - | - | 0.410 | - | - | 7.962 | - | - | 7.757 | - | - | - | - | - | 7.757 |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | | | | Item Number / Title [DODIC]: E51300 / CHARGE, Demo Cratering 40 lb [M039] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------------------|-------------|------|-------------------------|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2020 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Jun 2021 | Dec 2022 | 91 | 548.07 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Jun 2021 | Dec 2022 | 5,359 | 564.54 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | May 2022 | Nov 2023 | 5,199 | 575.83 | Y | | |
| COMP B TYPE I GRADE A | | 2020 | TO BE SELECTED / TBS01 | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Jun 2021 | Jun 2022 | 3,314 | 13.52 | Y | | |
| COMP B TYPE I GRADE A | | 2021 | TO BE SELECTED / TBS01 | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Jun 2021 | Jun 2022 | 195,174 | 13.79 | Y | | |
| COMP B TYPE I GRADE A | | 2022 | TO BE SELECTED / TBS01 | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 189,347 | 14.07 | Y | | |
| ALUMINUM POWDER FLAKED | | 2020 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Jun 2021 | Jun 2022 | 962 | 3.28 | Y | | |
| ALUMINUM POWDER FLAKED | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Jun 2021 | Jun 2022 | 56,644 | 3.57 | Y | | |
| ALUMINUM POWDER FLAKED | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 54,953 | 3.57 | Y | | |
| COMP D-2 | | 2020 | TO BE SELECTED / TBS01 | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Jun 2021 | Sep 2021 | 230 | 89.21 | Y | | |
| COMP D-2 | | 2021 | TO BE SELECTED / TBS01 | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Jun 2021 | Sep 2021 | 13,537 | 91.00 | Y | | |
| COMP D-2 | | 2022 | TO BE SELECTED / TBS01 | Option / IDIQ | ROCK ISLAND ARSENAL, IL | Mar 2022 | Jun 2022 | 13,132 | 92.82 | Y | | |

Remarks:
 The Demo Cratering 40 lb award date was revised as a result of change in Acquisition Strategy. The original intent was to pursue a sole-source award with American Ordnance at Iowa Army Ammunition Plant. Additional market research was done and it was determined that a Competitive Small Business Set Aside would be the most advantageous method to the Government.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E51400 / CHARGE, Demo, (50ft), Sheet Explosive, M186 [M060] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 12.531 | 2.056 | 2.466 | 3.661 | - | 3.661 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 12.531 | 2.056 | 2.466 | 3.661 | - | 3.661 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 12.531 | 2.056 | 2.466 | 3.661 | - | 3.661 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 105.52 | 105,163 | 11,097 | 27.29 | 61,243 | 1,671 | 43.15 | 48,387 | 2,088 | 46.54 | 66,190 | 3,080 | - | - | - | 46.54 | 66,190 | 3,080 |
| <i>Subtotal: Recurring Cost</i> | - | - | 11,097 | - | - | 1,671 | - | - | 2,088 | - | - | 3,080 | - | - | - | - | - | 3,080 |
| Subtotal: Hardware Cost | - | - | 11,097 | - | - | 1,671 | - | - | 2,088 | - | - | 3,080 | - | - | - | - | - | 3,080 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 0.373 | - | - | - | - | - | - | - | - | 0.075 | - | - | - | - | - | 0.075 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.373 | - | - | - | - | - | - | - | - | 0.075 | - | - | - | - | - | 0.075 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.048 | - | - | 0.382 | - | - | 0.375 | - | - | 0.502 | - | - | - | - | - | 0.502 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 1.048 | - | - | 0.382 | - | - | 0.375 | - | - | 0.502 | - | - | - | - | - | 0.502 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.012 | - | - | 0.003 | - | - | 0.003 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.012 | - | - | 0.003 | - | - | 0.003 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| Gross/Weapon System Cost | - | - | 12.531 | - | - | 2.056 | - | - | 2.466 | - | - | 3.661 | - | - | - | - | - | 3.661 |

Remarks:
FY 2020 and FY 2021 are delivery orders under a current contract with prices based on quantity ranges. FY 2022 will be a new contract with unit price estimated based on current contract highest price range.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E52000 / MUNITION, Selectable Lightweight Attack (SLAM), M4 [MP12] |

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|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|---|---------------|---------------|---------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 62.529 | 14.639 | 15.777 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 62.529 | 14.639 | 15.777 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 62.529 | 14.639 | 15.777 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | |
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round ^(†) | 11,788.88 | 4,813 | 56.740 | 3,222.04 | 3,876 | 12.489 | 4,113.37 | 3,361 | 13.825 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 56.740 | - | - | 12.489 | - | - | 13.825 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 56.740 | - | - | 12.489 | - | - | 13.825 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | 0.319 | - | - | - | - | - | - | - | - | - | - | - | - |
| First Article Test | - | - | 1.576 | - | - | 0.427 | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Acceptance Testing Cost | - | - | 1.576 | - | - | 0.746 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 4.213 | - | - | 1.405 | - | - | 1.952 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 4.213 | - | - | 1.405 | - | - | 1.952 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 62.529 | - | - | 14.639 | - | - | 15.777 | - | - | - | - | - | - | - | - | - |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | | Date: May 2021 | | | | |
|--|-------------|------|--|--------------------------------------|--------------------------|---------------|------------------------------|--|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | | | | | Item Number / Title [DODIC]: E52000 / MUNITION, Selectable Lightweight Attack (SLAM), M4 [MP12] | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| Complete Round | | 2020 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | PICATINNY ARSENAL, NJ | Jun 2020 | Dec 2021 | 3,876 | 3,222.04 | Y | | |
| Complete Round | | 2021 | NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN | Option / FFP | PICATINNY ARSENAL, NJ | Mar 2021 | Jun 2022 | 3,361 | 4,113.37 | Y | | |

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|---|--|--|--|------------------------|----------------|---|--------------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | | | Item Number / Title [DODIC]: E52500 / CAP, Blasting Elec, M6 [M130] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (<i>Units in Each</i>) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | | | 18.319 | 3.132 | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | | | 18.319 | 3.132 | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | | | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | | | 18.319 | 3.132 | - | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 27.66 | 616,048 | 17.040 | 28.27 | 102,402 | 2.895 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 17.040 | - | - | 2.895 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 17.040 | - | - | 2.895 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.271 | - | - | 0.236 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 1.271 | - | - | 0.236 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.009 | - | - | 0.001 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.009 | - | - | 0.001 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 18.319 | - | - | 3.132 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E53200 / CHARGE, Demo Shaped 40 lb, M3 |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|----------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 28.336 | - | 0.398 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 28.336 | - | 0.398 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 28.336 | - | 0.398 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | - | - | 28.336 | - | - | - | 1,064.46 | 191 | 0.203 | - | - | - | - | - | - | - | - | - |
| COMP B TYPE I GRADE A | - | - | - | - | - | - | 13.79 | 6,112 | 0.084 | - | - | - | - | - | - | - | - | - |
| *COMP A-3 | - | - | - | - | - | - | 2.57 | 22 | *** | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 28.336 | - | - | - | - | - | 0.288 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 28.336 | - | - | - | - | - | 0.288 | - | - | - | - | - | - | - | - | - |
| Support - Government Furnished Materials Cost | | | | | | | | | | | | | | | | | | |
| Government Furnished Materials | - | - | - | - | - | - | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Government Furnished Materials Cost</i> | - | - | - | - | - | - | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | 0.110 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | 0.110 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 28.336 | - | - | - | - | - | 0.398 | - | - | - | - | - | - | - | - | - |

*.*** represents funding below \$1,000.00

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types |
| | | Item Number / Title [DODIC]: E54100 / CORD, Detonating Type 1 [M456] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 33.842 | 2.174 | 2.524 | 2.357 | - | 2.357 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 33.842 | 2.174 | 2.524 | 2.357 | - | 2.357 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 33.842 | 2.174 | 2.524 | 2.357 | - | 2.357 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 0.33 | 98,337,383 | 32.451 | 0.36 | 5,060,087 | 1.822 | 0.37 | 5,784,353 | 2.140 | 0.42 | 4,245,422 | 1.783 | - | - | - | 0.42 | 4,245,422 | 1.783 |
| <i>Subtotal: Recurring Cost</i> | - | - | 32.451 | - | - | 1.822 | - | - | 2.140 | - | - | 1.783 | - | - | - | - | - | 1.783 |
| Subtotal: Hardware Cost | - | - | 32.451 | - | - | 1.822 | - | - | 2.140 | - | - | 1.783 | - | - | - | - | - | 1.783 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | - | - | - | 0.130 | - | - | - | - | - | 0.130 |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.130 | - | - | - | - | - | 0.130 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.382 | - | - | 0.350 | - | - | 0.382 | - | - | 0.441 | - | - | - | - | - | 0.441 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 1.382 | - | - | 0.350 | - | - | 0.382 | - | - | 0.441 | - | - | - | - | - | 0.441 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.008 | - | - | 0.002 | - | - | 0.002 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.008 | - | - | 0.002 | - | - | 0.002 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| Gross/Weapon System Cost | - | - | 33.842 | - | - | 2.174 | - | - | 2.524 | - | - | 2.357 | - | - | - | - | - | 2.357 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types |
| | | Item Number / Title [DODIC]: E56500 / FUZE, Blasting Time, M700 [M670] |

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|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|--------------|---------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 5.064 | 0.600 | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 5.064 | 0.600 | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 5.064 | 0.600 | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 17.22 | 269,829 | 4.646 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 4.646 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 4.646 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.411 | - | - | 0.597 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.411 | - | - | 0.597 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.007 | - | - | 0.003 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.007 | - | - | 0.003 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 5.064 | - | - | 0.600 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types |
| | | Item Number / Title [DODIC]: E59100 / CTG, .50cal Blnk Elec Initiated, MK209 Series(EOD) [SS01] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|--------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 9.215 | 1.292 | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 9.215 | 1.292 | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 9.215 | 1.292 | - | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 130.99 | 65,334 | 8.558 | 118.22 | 10,013 | 1.184 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>8.558</i> | - | - | <i>1.184</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 8.558 | - | - | 1.184 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.656 | - | - | 0.108 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.656 | - | - | 0.108 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 9.215 | - | - | 1.292 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | | | Item Number / Title [DODIC]: E60200 / CUTTER, Cartridge Actuated, M21, 2 Second Delay [M500] | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | | 38.144 | 7.225 | 4.689 | 4.352 | - | 4.352 |
| Less PY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | | 38.144 | 7.225 | 4.689 | 4.352 | - | 4.352 |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | | 38.144 | 7.225 | 4.689 | 4.352 | - | 4.352 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | - | - | 38.144 | 638.89 | 10,912 | 6.972 | 656.85 | 6,853 | 4.501 | 669.42 | 6,176 | 4.134 | - | - | - | 669.42 | 6,176 | 4.134 |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>38.144</i> | - | - | <i>6.972</i> | - | - | <i>4.501</i> | - | - | <i>4.134</i> | - | - | - | - | - | <i>4.134</i> |
| <i>Subtotal: Hardware Cost</i> | - | - | 38.144 | - | - | 6.972 | - | - | 4.501 | - | - | 4.134 | - | - | - | - | - | 4.134 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.000 | - | - | 0.253 | - | - | 0.188 | - | - | 0.218 | - | - | - | - | - | 0.218 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | <i>0.000</i> | - | - | <i>0.253</i> | - | - | <i>0.188</i> | - | - | <i>0.218</i> | - | - | - | - | - | <i>0.218</i> |
| Gross/Weapon System Cost | - | - | 38.144 | - | - | 7.225 | - | - | 4.689 | - | - | 4.352 | - | - | - | - | - | 4.352 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E78201 / CHARGE, Demo (38FT) Sheet Explosive, PBXW-202 [M980] |

| | | | | | | | |
|---|--------------------|----------------|----------------|------------------------|--------------------|----------------------|--|
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | |
| Procurement Quantity (Units in Each) | - | - | - | - | - | - | |
| Gross/Weapon System Cost (\$ in Millions) | 6.828 | - | - | 5.219 | - | 5.219 | |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | |
| Net Procurement (P-1) (\$ in Millions) | 6.828 | - | - | 5.219 | - | 5.219 | |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | |
| Total Obligation Authority (\$ in Millions) | 6.828 | - | - | 5.219 | - | 5.219 | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | - | - | - | - | - | - | |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | 377.14 | 17,886 | 6.746 | - | - | - | - | - | - | 52.68 | 94,058 | 4.955 | - | - | - | 52.68 | 94,058 | 4.955 |
| Subtotal: Recurring Cost | - | - | 6.746 | - | - | - | - | - | - | - | - | 4.955 | - | - | - | - | - | 4.955 |
| Subtotal: Hardware Cost | - | - | 6.746 | - | - | - | - | - | - | - | - | 4.955 | - | - | - | - | - | 4.955 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.081 | - | - | - | - | - | - | - | - | 0.262 | - | - | - | - | - | 0.262 |
| Subtotal: Support - Production Engineering Cost | - | - | 0.081 | - | - | - | - | - | - | - | - | 0.262 | - | - | - | - | - | 0.262 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.001 | - | - | - | - | - | - | - | - | 0.002 | - | - | - | - | - | 0.002 |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.001 | - | - | - | - | - | - | - | - | 0.002 | - | - | - | - | - | 0.002 |
| Gross/Weapon System Cost | - | - | 6.828 | - | - | - | - | - | - | - | - | 5.219 | - | - | - | - | - | 5.219 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|--|--------------------------------------|----------------------------|---------------|--|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | | | | Item Number / Title [DODIC]: E78201 / CHARGE, Demo (38FT) Sheet Explosive, PBXW-202 [M980] | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND | | 2022 | TO BE SELECTED / TBS01 | C / IDIQ | ROCK ISLAND ARSENAL, IL | May 2022 | May 2024 | 94,058 | 52.68 | Y | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E81302 / CAP, Blasting Non-Elec, w/30Ft Shock Tube [ML47] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|--------------|----------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 8.439 | - | 1.922 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 8.439 | - | 1.922 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 8.439 | - | 1.922 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 24.21 | 339,522 | 8.219 | - | - | - | 29.38 | 55,701 | 1.636 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 8.219 | - | - | - | - | - | 1.636 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 8.219 | - | - | - | - | - | 1.636 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.220 | - | - | - | - | - | 0.285 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.220 | - | - | - | - | - | 0.285 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 8.439 | - | - | - | - | - | 1.922 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types |
| | | Item Number / Title [DODIC]: E81306 / CAP BLASTING NON-ELEC, DELAY, W/70 FT TUBE, M15 [MN07] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 4.111 | 1.178 | 1.501 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 4.111 | 1.178 | 1.501 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 4.111 | 1.178 | 1.501 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 668.35 | 6,113 | 4.086 | 23.75 | 40,160 | 0.954 | 24.27 | 52,653 | 1.278 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 4.086 | - | - | 0.954 | - | - | 1.278 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 4.086 | - | - | 0.954 | - | - | 1.278 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | 0.050 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.050 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.025 | - | - | 0.174 | - | - | 0.223 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.025 | - | - | 0.174 | - | - | 0.223 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 4.111 | - | - | 1.178 | - | - | 1.501 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E81307 / IGNITER, Time Fuze and Shock Tube, M81 [MN08] |

| | | | | | | | |
|---|--|--------------------|----------------|------------------------|---------------------|--------------------|----------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 18.188 | - | 0.340 | 2.362 | - | 2.362 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 18.188 | - | 0.340 | 2.362 | - | 2.362 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 18.188 | - | 0.340 | 2.362 | - | 2.362 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 284.60 | 60,000 | 17.076 | - | - | - | 15.00 | 13,633 | 0.204 | 15.30 | 112,573 | 1.722 | - | - | - | 15.30 | 112,573 | 1.722 |
| <i>Subtotal: Recurring Cost</i> | - | - | 17.076 | - | - | - | - | - | 0.204 | - | - | 1.722 | - | - | - | - | - | 1.722 |
| <i>Subtotal: Hardware Cost</i> | - | - | 17.076 | - | - | - | - | - | 0.204 | - | - | 1.722 | - | - | - | - | - | 1.722 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | 0.085 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | 0.085 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.112 | - | - | - | - | - | 0.050 | - | - | 0.639 | - | - | - | - | - | 0.639 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 1.112 | - | - | - | - | - | 0.050 | - | - | 0.639 | - | - | - | - | - | 0.639 |
| Gross/Weapon System Cost | - | - | 18.188 | - | - | - | - | - | 0.340 | - | - | 2.362 | - | - | - | - | - | 2.362 |

Remarks:
Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Modern Demolition Initiators (MDI) support.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types |
| | | Item Number / Title [DODIC]: E99903 / CAP, Blasting Non-Elec, w/500Ft Minitube, M21 [MN88] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 20.841 | 3.421 | 2.035 | 2.196 | - | 2.196 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 20.841 | 3.421 | 2.035 | 2.196 | - | 2.196 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 20.841 | 3.421 | 2.035 | 2.196 | - | 2.196 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 259.93 | 68,717 | 17.862 | 61.79 | 45,556 | 2.815 | 63.02 | 27,500 | 1.733 | 64.28 | 24,874 | 1.599 | - | - | - | 64.28 | 24,874 | 1.599 |
| <i>Subtotal: Recurring Cost</i> | - | - | 17.862 | - | - | 2.815 | - | - | 1.733 | - | - | 1.599 | - | - | - | - | - | 1.599 |
| <i>Subtotal: Hardware Cost</i> | - | - | 17.862 | - | - | 2.815 | - | - | 1.733 | - | - | 1.599 | - | - | - | - | - | 1.599 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | 0.100 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.100 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.979 | - | - | 0.506 | - | - | 0.302 | - | - | 0.597 | - | - | - | - | - | 0.597 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 2.979 | - | - | 0.506 | - | - | 0.302 | - | - | 0.597 | - | - | - | - | - | 0.597 |
| Gross/Weapon System Cost | - | - | 20.841 | - | - | 3.421 | - | - | 2.035 | - | - | 2.196 | - | - | - | - | - | 2.196 |

Remarks:
Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Modern Demolition Initiators (MDI) support.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 2790E55400 / Demolition Munitions, All Types | Item Number / Title [DODIC]: E99905 / CAP, Blast, Non-Elec, 1000Ft Minitube, M23 [MN90] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 23.607 | 4.889 | 3.866 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 23.607 | 4.889 | 3.866 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 23.607 | 4.889 | 3.866 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 429.14 | 48,910 | 20.989 | 135.04 | 30,105 | 4.065 | 137.75 | 23,900 | 3.292 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 20.989 | - | - | 4.065 | - | - | 3.292 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 20.989 | - | - | 4.065 | - | - | 3.292 | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | 0.100 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.100 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.618 | - | - | 0.723 | - | - | 0.574 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 2.618 | - | - | 0.723 | - | - | 0.574 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 23.607 | - | - | 4.889 | - | - | 3.866 | - | - | - | - | - | - | - | - | - |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

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| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types |
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| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|------------------|---------------|---------------|---------------|-------------|---------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity <i>(Units in Each)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost <i>(\$ in Millions)</i> | 1,061.014 | 46.282 | 32.931 | 37.437 | - | 37.437 | - | - | - | - | - | - |
| Less PY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) <i>(\$ in Millions)</i> | 1,061.014 | 46.282 | 32.931 | 37.437 | - | 37.437 | - | - | - | - | - | - |
| Plus CY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority <i>(\$ in Millions)</i> | 1,061.014 | 46.282 | 32.931 | 37.437 | - | 37.437 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost <i>(\$ in Dollars)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i> | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes Grenades, All Types.

(E00500) GRENADE 66MM VEH LNCHD WHITE SMK SCREENING TNG M82

M82 Simulant Smoke Grenade is a 66mm grenade fielded to train in the handling, usage and deployment of the M76 infra-red, M81 graphite and brass flake and L8 Red Phosphorus grenades. The M82 contains the same internal and external components of the tactical M76 grenade except for a new fill material (titanium dioxide in place of the brass flake powder) along with a reduction in the amount of black powder in the propellant. The grenade is electrically initiated and propellant-launched to disseminate a visual screen cloud at a distance of about 30m meters away from combat equipped vehicle. This item is code A, approved for service use.

(E31900) FUZE GRENADE HAND PRAC M228

Fuze Grenade Hand Practice M228 is a pyrotechnic delay-igniting fuze (delay time of 4 to 5.5 seconds) for use with the M69 practice grenade body. The assembled grenade is identical in size, shape and weight to the M67 fragmentation hand grenade, and is used to learn and practice grenade throwing skills. The fuze contains a primer, a pyrotechnic delay column, and a black powder output charge (to generate an audible report). A striker, striker spring, safety lever, safety pin with pull ring, safety clip, and igniter assembly are assembled to the body. This item is Code A, approved for service use.

(E32000) GRENADE HAND FRAG DELAY M67

Grenade Hand Fragmentation Delay M67 consists of a 2.5-inch diameter steel sphere that is designed to burst into numerous fragments when detonated. The grenade body is filled with approximately 5.4 ounces of high explosive, Composition B. Each grenade is fitted with an M213 fuze that initiates the explosive charge 4 to 5.5 seconds after release of the safety lever. The M67 Hand Grenade provides the Warfighter with the capability to conduct pre-mobilization training, and close combat operations. The M67 is an enabler for Soldier Lethality as it provides Soldiers with a highly effective capability that is easy to throw and can produce casualties to enemy combatants via a 15 meter fragmentation radius. This capability allows for increased lethality of dismounted Soldiers making the unit more efficient and lethal. This item is Code A, approved for service use.

(E32200) GRENADE HAND INCENDIARY M14

Grenade Hand Incendiary M14 provides the Warfighter with the capability to destroy weapon caches, artillery pieces, and vehicles by means of a chemical reaction that produces intense heat, called a thermite reaction. In this reaction, powdered aluminum metal and iron oxide react to produce a stream of molten iron and aluminum oxide. This reaction produces a tremendous amount of heat, burning at 2,200 degrees Celsius (3,992 degrees Fahrenheit). Other advantages include its ability to function without an external oxygen source, allowing it to burn underwater. The M14 uses the M201 fuze, which is a pyrotechnic delay

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>fuze. The M14 is an enabler to soldier lethality as it provides dismounted Soldiers with a capability to quickly and efficiently destroy weapon caches, artillery pieces, and vehicles without the need for special equipment making the unit more efficient and lethal. This item is Code A, approved for service use.</p> <p>(E33010) GRENADE HAND OFFENSIVE M111 M111 Offensive Hand Grenade consists of a plastic hexagonal body that is designed to provide blast overpressure effective against enemy troops in indoor and close combat environments where fragments are not desired to reduce collateral damage. The body is filled with PAX-3 explosive. Each grenade is fitted with a M213 fuze that initiates the explosive charge. The M111 provides the warfighter with the capability to conduct pre-mobilization training and the capability to conduct close combat operations. The M111 is an enabler for soldier lethality as it provides Soldiers a capability to produce blast overpressure effects against enemy troops in indoor areas, bunkers, trench lines and tunnels. This capability allows for increased lethality of dismounted Soldiers making the unit more efficient and lethal. The M111 is a more environmentally friendly replacement for the MK3A2 which contains asbestos. This item will be Code A, approved for service use upon achieving Full Materiel Release, which is anticipated for 4Q FY 2022.</p> <p>(E34001) GRENADE HAND SMOKE GREEN M18 The M18 is an enabler to Soldier Lethality as it provides the Warfighter with a multi-functional capability that provides both effective marking and screening allowing the Unit to be more efficient and effective in combat operations. Grenade Hand Smoke Green M18 is used by the Warfighter for ground-to-air or ground-to-ground signaling while conducting training and combat operations. Each grenade will emit smoke for 50 to 90 seconds. The grenade body is made of thin sheet metal, filled with starter patches and a green smoke composition. The Hand Grenade Fuze M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first-fire mix, pyrotechnic delay column, and ignition mixture. Assembled to the body are a striker, striker spring, safety lever, and safety pin with pull ring. This item is Code A, approved for service use.</p> <p>(E34002) GRENADE HAND SMOKE YELLOW M18 The M18 is an enabler to soldier lethality as it provides the Warfighter with a multi-functional capability that provides both effective marking and screening allowing the Unit to be more efficient and effective in combat operations. Grenade Hand Smoke Yellow M18 is used by the Warfighter for ground-to-air or ground-to-ground signaling while conducting training and combat operations. Each grenade will emit smoke for 50 to 90 seconds. The grenade body is made of thin sheet metal, filled with starter patches and a yellow smoke composition. The Hand Grenade Fuze M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first-fire mix, pyrotechnic delay column, and ignition mixture. Assembled to the body are a striker, striker spring, safety lever, and safety pin with pull ring. This item is Code A, approved for service use.</p> <p>(E34003) GRENADE HAND SMOKE RED M18 The M18 is an enabler to Soldier Lethality as it provides the Warfighter with a multi-functional capability that provides both effective marking and screening allowing the Unit to be more efficient and effective in combat operations. Grenade Hand Smoke Red M18 is used by the Warfighter for ground-to-air or ground-to-ground signaling while conducting training and combat operations. Each grenade will emit smoke for 50 to 90 seconds. The grenade body is made of thin sheet metal, filled with starter patches and a red smoke composition. The Hand Grenade Fuze M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first-fire mix, pyrotechnic delay column, and ignition mixture. Assembled to the body are a striker, striker spring, safety lever, and safety pin with pull ring. This item is Code A, approved for service use.</p> <p>(E34004) GRENADE HAND SMOKE VIOLET M18 The M18 is an enabler to Soldier Lethality as it provides the Warfighter with a multi-functional capability that provides both effective marking and screening allowing the Unit to be more efficient and effective in combat operations. Grenade Hand Smoke Violet M18 is used by the Warfighter for ground-to-air or ground-to-ground signaling while conducting training and combat operations. Each grenade will emit smoke for 50 to 90 seconds. The grenade body is made of thin sheet metal, filled with starter patches and a violet smoke composition. The Hand Grenade Fuze M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first-fire mix, pyrotechnic delay column and ignition mixture. Assembled to the body are a striker, striker spring, safety lever, and safety pin with pull ring. This item is Code A, approved for service use.</p> <p>(E34005) HAND SMOKE VISUAL RESTRICTED TERRAIN M106 The M106 is an enabler to Soldier Lethality as it provides the Warfighter with an instant screening capability which will increase self-protection and maneuver during crucial times allowing the</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>Warfighter to be more efficient and effective in combat operations. Grenade Hand Smoke Visual Restricted M106 rapidly produces a short duration obscurant cloud that provides the Warfighter the capability to obscure the light visible spectrum within restrictive terrain, such as caves and urban structures. It is non-toxic and designed to be safer than current smoke grenades. The fill is non-combustible Titanium Dioxide. This item is code A, approved for service use.</p> <p>(E35800) BODY GRENADE HAND PRAC M69 Body, Grenade Hand Practice M69 is a reusable metal grenade body used with the M228 practice hand grenade fuze, which provides a pyrotechnic delay smoke and bang effect to simulate the M67 fragmentation grenade. The assembled grenade (body and fuze) is identical in size, shape and weight to the M67 fragmentation hand grenade and is used to learn and practice grenade throwing skills. This item is Code A, approved for service use.</p> <p>(E35801) BODY GRENADE HAND PRAC M112 Body, Grenade Hand Practice M112 is a reusable metal body used with the M228 practice hand grenade fuze, which provides a pyrotechnic delay, smoke and bang effect to simulate the M111 Offensive Hand Grenade. The assembled grenade (body and fuze) is identical in size, shape and weight to the M111 Offensive Hand Grenade and is used to learn and practice grenade throwing skills. This item will be Code A, approved for service use upon achieving Full Materiel Release, which is anticipated for 4Q FY 2022.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types |

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|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E00500 / GRENADE 66MM VEH LNCHD WHITE SMK SCREENING TNG M82 [G978] | P-5a | A | | - / 21.077 | - / 8.084 | - / 4.081 | - / 4.720 | - / - | - / 4.720 |
| P-5 | E31900 / FUZE, Grenade, Hand, Practice, M228 [G878] | | A | | - / 270.716 | - / 4.900 | - / 4.895 | - / 5.708 | - / - | - / 5.708 |
| P-5 | E32000 / GRENADE, Hand, Frag, Delay, M67 [G881] | | A | | - / 340.203 | - / 5.058 | - / 3.536 | - / 3.358 | - / - | - / 3.358 |
| P-5 | E32200 / GRENADE HAND INCENDIARY M14 [G900] | P-5a, P-21 | A | | - / 13.207 | - / 5.329 | - / 8.593 | - / 7.734 | - / - | - / 7.734 |
| P-5 | E33010 / GRENADE, HAND OFFENSIVE, M111 | P-5a, P-21 | A | | - / 12.707 | - / - | - / 5.694 | - / 11.218 | - / - | - / 11.218 |
| P-5 | E34001 / GRENADE, Hand, Smoke, Green, M18 [G940] | | A | | - / 173.379 | - / 2.480 | - / - | - / 2.559 | - / - | - / 2.559 |
| P-5 | E34002 / GRENADE, Hand, Smoke, Yellow, M18 [G945] | | A | | - / 101.622 | - / 2.145 | - / - | - / 2.140 | - / - | - / 2.140 |
| P-5 | E34003 / GRENADE, Hand, Smoke, Red, M18 | | A | | - / 51.949 | - / - | - / 2.000 | - / - | - / - | - / - |
| P-5 | E34004 / GRENADE, Hand, Smoke, Violet, M18 [G955] | | A | | - / 57.619 | - / 0.973 | - / 0.988 | - / - | - / - | - / - |
| P-5 | E34005 / GRENADE, Hand Smoke Visual Restricted Terrain M106 [GG25] | | A | | - / 13.822 | - / 11.289 | - / - | - / - | - / - | - / - |
| P-5 | E35800 / BODY GRENADE HAND PRAC M69 [G811] | | A | | - / 4.713 | - / 3.290 | - / 1.826 | - / - | - / - | - / - |
| P-5 | E35801 / BODY, PRACTICE HAND GRENADE, OFFENSIVE, M112 [GG38] | | A | | - / - | - / 2.734 | - / 1.318 | - / - | - / - | - / - |
| P-40 | Total Gross/Weapon System Cost | | | | - / 1,061.014 | - / 46.282 | - / 32.931 | - / 37.437 | - / - | - / 37.437 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense (DoD) Instruction 3000.04 (Munitions Requirements Process) and Army Regulation (AR) 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$37.437 million supports procurement of seven variants of Grenades.

(E00500) GRENADE 66M VEH LNCHD WHITE SMK SCREENING TNG M82
 This is a training unique item not used in combat. FY 2022 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$4.720 million supports the procurement of 7,705 grenades. Effort is performed at Pine Buff Arsenal (Pine Bluff, Arkansas).
 TYPE CLASSIFICATION DATE: Jul 1992.

(E31900) FUZE GRENADE HAND PRAC M228

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>This is a training unique item not used in combat. FY 2022 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$5.708 million supports recapitalization of 833,712 fuzes at Blue Grass Army Depot (Richmond, Kentucky) and the procurement of 230,287 new fuzes. TYPE CLASSIFICATION DATE: March 1971</p> <p>(E32000) GRENADE HAND FRAG DELAY M67 This is a training standard item used in both training and combat. FY 2022 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$3.358 million supports the procurement of 40,958 grenades. TYPE CLASSIFICATION DATE: March 1970</p> <p>(E32200) GRENADE HAND INCENDIARY M14 This is a training standard item used in both training and combat. FY 2022 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$7.734 million supports the procurement of 41,792 grenades. Effort is performed at Pine Buff Arsenal (Pine Bluff, Arkansas). In FY 2022, funding in the amount of \$0.113 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments. TYPE CLASSIFICATION DATE: 1942</p> <p>(E33010) GRENADE HAND OFFENSIVE M111 This is a training standard item used in both training and combat. FY 2022 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$11.218 million supports the procurement of 31,611grenades. TYPE CLASSIFICATION DATE: March 2020</p> <p>(E34001) GRENADE HAND SMOKE GREEN M18 This is a training standard item used in both training and combat. FY 2022 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$2.559 million supports the procurement of 23,142 grenades. Effort is performed at Pine Buff Arsenal (Pine Bluff, Arkansas). TYPE CLASSIFICATION DATE: September 1943</p> <p>(E34002) GRENADE HAND SMOKE YELLOW M18 This is a training standard item used in both training and combat. FY 2022 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$2.140 million supports the procurement of 18,139 grenades. Effort is performed at Pine Buff Arsenal (Pine Bluff, Arkansas). TYPE CLASSIFICATION DATE: September 1943</p> <p>(E34003) GRENADE HAND SMOKE RED M18 This is a training standard item used in both training and combat. E34003 has no FY 2022 funding request. TYPE CLASSIFICATION DATE: September 1943</p> <p>(E34004) GRENADE HAND SMOKE VIOLET M18 This is a training standard item used in both training and in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal. E34004 has no FY 2022 funding request.. TYPE CLASSIFICATION DATE: September 1943</p> <p>(E34005) HAND SMOKE VISUAL RESTRICTED TERRAIN M106 This is a training standard item used in both training and combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal. E34005 has no FY 2022 funding request.</p> | | |

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| TYPE CLASSIFICATION DATE: April 2008 | | |
| (E35800) BODY GRENADE HAND PRAC M69 This is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal, E35800 has no FY 2022 funding request. TYPE CLASSIFICATION DATE: March 1971 | | |
| (E35801) GRENADE HAND BODY PRACTICE OFFENSIVE M112 This is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal. E35801 has no FY 2022 funding request. TYPE CLASSIFICATION DATE: March 2020 | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E00500 / GRENADE 66MM VEH LNCHD WHITE SMK SCREENING TNG M82 [G978] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 21.077 | 8.084 | 4.081 | 4.720 | - | 4.720 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 21.077 | 8.084 | 4.081 | 4.720 | - | 4.720 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 21.077 | 8.084 | 4.081 | 4.720 | - | 4.720 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | - | 248.12 | 30,345 | 7.529 | 253.08 | 10,775 | 2.727 | 480.53 | 7,705 | 3.702 | - | - | - | 480.53 | 7,705 | 3.702 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | 7.529 | - | - | 2.727 | - | - | 3.702 | - | - | - | - | - | 3.702 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | 7.529 | - | - | 2.727 | - | - | 3.702 | - | - | - | - | - | 3.702 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | 0.195 | - | - | 0.201 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.195 | - | - | 0.201 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 21.077 | - | - | 0.352 | - | - | 1.149 | - | - | 1.014 | - | - | - | - | - | 1.014 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 21.077 | - | - | 0.352 | - | - | 1.149 | - | - | 1.014 | - | - | - | - | - | 1.014 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | 0.007 | - | - | 0.004 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | - | - | - | 0.007 | - | - | 0.004 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| Gross/Weapon System Cost | - | - | 21.077 | - | - | 8.084 | - | - | 4.081 | - | - | 4.720 | - | - | - | - | - | 4.720 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E00500 / GRENADE 66MM VEH LNCHD WHITE SMK SCREENING TNG M82 [G978] |

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|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

Remarks:
 FY 2022 hardware increased due to the inclusion of material costs. Material costs were not included in FY 2021 hardware estimate as there was sufficient material to cover this production.

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | | | | Item Number / Title [DODIC]: E00500 / GRENADE 66MM VEH LNCHD WHITE SMK SCREENING TNG M82 [G978] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|----------------|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| COMPLETE ROUND | | 2020 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | ROCK ISLAND ARSENAL, IL | Jun 2020 | Sep 2021 | 30,345 | 248.12 | Y | | |
| COMPLETE ROUND | | 2021 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | ROCK ISLAND ARSENAL, IL | Apr 2021 | Jun 2022 | 10,775 | 253.08 | Y | | |
| COMPLETE ROUND | | 2022 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | ROCK ISLAND ARSENAL, IL | Mar 2022 | Jun 2023 | 7,705 | 480.53 | Y | | |

Remarks:
Planned acquisition of this item involves long lead time procurement with Pine Bluff Arsenal.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E31900 / FUZE, Grenade, Hand, Practice, M228 [G878] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 270.716 | 4.900 | 4.895 | 5.708 | - | 5.708 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 270.716 | 4.900 | 4.895 | 5.708 | - | 5.708 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 270.716 | 4.900 | 4.895 | 5.708 | - | 5.708 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 7.21 | 36,835,142 | 265.618 | 10.73 | 190,150 | 2.040 | 10.94 | 176,884 | 1.935 | 11.16 | 230,287 | 2.570 | - | - | - | 11.16 | 230,287 | 2.570 |
| <i>Subtotal: Recurring Cost</i> | - | - | 265.618 | - | - | 2.040 | - | - | 1.935 | - | - | 2.570 | - | - | - | - | - | 2.570 |
| Subtotal: Hardware Cost | - | - | 265.618 | - | - | 2.040 | - | - | 1.935 | - | - | 2.570 | - | - | - | - | - | 2.570 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| Acceptance Test | - | - | - | - | - | 0.014 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.014 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.715 | - | - | 0.629 | - | - | 0.798 | - | - | 0.913 | - | - | - | - | - | 0.913 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 2.715 | - | - | 0.629 | - | - | 0.798 | - | - | 0.913 | - | - | - | - | - | 0.913 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.038 | - | - | 0.004 | - | - | 0.004 | - | - | 0.004 | - | - | - | - | - | 0.004 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.038 | - | - | 0.004 | - | - | 0.004 | - | - | 0.004 | - | - | - | - | - | 0.004 |
| Support - Recapitalization Cost | | | | | | | | | | | | | | | | | | |
| Recapitalization | - | - | 2.246 | - | - | 2.119 | - | - | 2.158 | - | - | 2.221 | - | - | - | - | - | 2.221 |
| <i>Subtotal: Support - Recapitalization Cost</i> | - | - | 2.246 | - | - | 2.119 | - | - | 2.158 | - | - | 2.221 | - | - | - | - | - | 2.221 |
| Support - Staging and Transportation Cost | | | | | | | | | | | | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E31900 / FUZE, Grenade, Hand, Practice, M228 [G878] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Staging and Transportation | - | - | 0.099 | - | - | 0.092 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Staging and Transportation Cost</i> | - | - | 0.099 | - | - | 0.092 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 270.716 | - | - | 4.900 | - | - | 4.895 | - | - | 5.708 | - | - | - | - | - | 5.708 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E32000 / GRENADE, Hand, Frag, Delay, M67 [G881] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 340.203 | 5.058 | 3.536 | 3.358 | - | 3.358 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 340.203 | 5.058 | 3.536 | 3.358 | - | 3.358 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 340.203 | 5.058 | 3.536 | 3.358 | - | 3.358 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE GRENADE | 31.89 | 10,357,105 | 330.309 | 42.51 | 97,941 | 4.163 | 44.90 | 55,221 | 2.479 | 45.80 | 40,958 | 1.876 | - | - | - | 45.80 | 40,958 | 1.876 |
| <i>Subtotal: Recurring Cost</i> | - | - | 330.309 | - | - | 4.163 | - | - | 2.479 | - | - | 1.876 | - | - | - | - | - | 1.876 |
| <i>Subtotal: Hardware Cost</i> | - | - | 330.309 | - | - | 4.163 | - | - | 2.479 | - | - | 1.876 | - | - | - | - | - | 1.876 |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Production Verification Test | - | - | - | - | - | 0.709 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | - | - | - | 0.709 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 9.817 | - | - | 0.177 | - | - | 1.051 | - | - | 1.476 | - | - | - | - | - | 1.476 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 9.817 | - | - | 0.177 | - | - | 1.051 | - | - | 1.476 | - | - | - | - | - | 1.476 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.077 | - | - | 0.008 | - | - | 0.005 | - | - | 0.006 | - | - | - | - | - | 0.006 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.077 | - | - | 0.008 | - | - | 0.005 | - | - | 0.006 | - | - | - | - | - | 0.006 |
| Gross/Weapon System Cost | - | - | 340.203 | - | - | 5.058 | - | - | 3.536 | - | - | 3.358 | - | - | - | - | - | 3.358 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E32200 / GRENADE HAND INCENDIARY M14 [G900] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 13.207 | 5.329 | 8.593 | 7.734 | - | 7.734 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 13.207 | 5.329 | 8.593 | 7.734 | - | 7.734 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 13.207 | 5.329 | 8.593 | 7.734 | - | 7.734 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Load, Assemble, Pack (Lap) ^(†) | 0.08 | 56,000 | 0.004 | 132.60 | 34,281 | 4.546 | 135.26 | 47,120 | 6.373 | 135.91 | 41,792 | 5.680 | - | - | - | 135.91 | 41,792 | 5.680 |
| FUZE,HAND GRENADE M201 ^(†) | - | - | - | 9.64 | 35,652 | 0.344 | 10.04 | 50,547 | 0.507 | 10.24 | 43,463 | 0.445 | - | - | - | 10.24 | 43,463 | 0.445 |
| TOP, GREN ^(†) | - | - | - | - | - | - | 1.22 | 52,491 | 0.064 | 1.18 | 45,135 | 0.053 | - | - | - | 1.18 | 45,135 | 0.053 |
| Grenade, Metal Parts Set ^(†) | 0.01 | 65,000 | 0.001 | 2.36 | 37,023 | 0.087 | - | - | - | - | - | - | - | - | - | - | - | - |
| BODY, GREN ^(†) | - | - | - | - | - | - | 1.22 | 52,491 | 0.064 | 1.18 | 45,135 | 0.053 | - | - | - | 1.18 | 45,135 | 0.053 |
| <i>Subtotal: Recurring Cost</i> | - | - | <i>0.005</i> | - | - | <i>4.977</i> | - | - | <i>7.009</i> | - | - | <i>6.232</i> | - | - | - | - | - | <i>6.232</i> |
| <i>Subtotal: Hardware Cost</i> | - | - | <i>0.005</i> | - | - | <i>4.977</i> | - | - | <i>7.009</i> | - | - | <i>6.232</i> | - | - | - | - | - | <i>6.232</i> |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | 0.201 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | <i>0.201</i> | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 13.202 | - | - | 0.348 | - | - | 1.383 | - | - | 1.502 | - | - | - | - | - | 1.502 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | <i>13.202</i> | - | - | <i>0.348</i> | - | - | <i>1.383</i> | - | - | <i>1.502</i> | - | - | - | - | - | <i>1.502</i> |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E32200 / GRENADE HAND INCENDIARY M14 [G900] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Quality Assurance | - | - | - | - | - | 0.004 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | - | - | - | 0.004 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 13.207 | - | - | 5.329 | - | - | 8.593 | - | - | 7.734 | - | - | - | - | - | 7.734 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | | | | Item Number / Title [DODIC]: E32200 / GRENADE HAND INCENDIARY M14 [G900] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---|-------------|------|--|--------------------------------------|----------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| Load, Assemble, Pack (Lap) ^(†) | | 2020 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | ROCK ISLAND ARSENAL, IL | Jun 2020 | Jun 2021 | 34,281 | 132.60 | Y | | |
| Load, Assemble, Pack (Lap) ^(†) | | 2021 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | ROCK ISLAND ARSENAL, IL | Apr 2021 | Mar 2022 | 47,120 | 135.26 | Y | | |
| Load, Assemble, Pack (Lap) ^(†) | | 2022 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 41,792 | 135.91 | Y | | |
| FUZE,HAND GRENADE M201 | | 2020 | Chemring Ordnance, Inc. / Perry, FL | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2020 | Mar 2021 | 35,652 | 9.64 | Y | | |
| FUZE,HAND GRENADE M201 | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Jan 2021 | Jan 2022 | 50,547 | 10.04 | Y | | |
| FUZE,HAND GRENADE M201 | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Dec 2021 | Dec 2022 | 43,463 | 10.24 | Y | | |
| TOP, GREN | | 2021 | TOOL MASTERS INC. / TUSCUMBIA, AL | Option / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Jan 2022 | 52,491 | 1.22 | Y | | |
| TOP, GREN | | 2022 | TOOL MASTERS INC. / TUSCUMBIA, AL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Nov 2022 | 45,135 | 1.18 | Y | | |
| Grenade, Metal Parts Set | | 2020 | TOOL MASTERS INC. / TUSCUMBIA, AL | Option / FFP | ROCK ISLAND ARSENAL, IL | May 2020 | May 2021 | 37,023 | 2.36 | Y | | |
| BODY, GREN | | 2021 | TOOL MASTERS INC. / TUSCUMBIA, AL | Option / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Jan 2022 | 52,491 | 1.22 | Y | | |
| BODY, GREN | | 2022 | TOOL MASTERS INC. / TUSCUMBIA, AL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Nov 2022 | 45,135 | 1.18 | Y | | |

^(†) indicates the presence of a P-21

Remarks:
Planned acquisition of this item involves long lead time procurement with Pine Bluff Arsenal.

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| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | | | Item Number / Title [DODIC]: E32200 / GRENADE HAND INCENDIARY M14 [G900] |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2020 | | | | | | | | | | | Fiscal Year 2021 | | | | | | | | | | | B A L A N C E | |
|--|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2019 | BAL DUE AS OF 1 OCT | Calendar Year 2020 | | | | | | | | | | | Calendar Year 2021 | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | | J U L |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|------|------|--------|------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|--------|
| Load, Assemble, Pack (Lap) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 56000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2020 | ARMY | 34.281 | .000 | 34.281 | | | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| 1 | 2021 | ARMY | 47.120 | .000 | 47.120 | | | | | | | | | | | | | | | | | | | | | | | A | - | - | 47.120 |
| 1 | 2022 | ARMY | 41.792 | .000 | 41.792 | | | | | | | | | | | | | | | | | | | | | | | | | | 41.792 |

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | | | | | | | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | | | | | | | | | | Item Number / Title [DODIC]: E32200 / GRENADE HAND INCENDIARY M14 [G900] | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2022 | | | | | | | | | | | | Fiscal Year 2023 | | | | | | | | | | | | B A L A N C E | | | | | | | |
|--|------------------|------|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|---|---|---|------|------|------|
| O C C O | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2021 | BAL DUE AS OF 1 OCT | Calendar Year 2022 | | | | | | | | | | | | Calendar Year 2023 | | | | | | | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P | | | | | | |
| Load, Assemble, Pack (Lap) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prior Years Deliveries: 56000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2020 | ARMY | 34.281 | 34.281 | .000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | .000 | |
| | 1 | 2021 | ARMY | 47.120 | .000 | 47.120 | - | - | - | - | - | 40.000 | 7.120 | | | | | | | | | | | | | | | | | | | | | | | | .000 |
| | 1 | 2022 | ARMY | 41.792 | .000 | 41.792 | | | | | | A - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | .000 | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | | | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types |
| Item Number / Title [DODIC]: E32200 / GRENADE HAND INCENDIARY M14 [G900] | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|-------------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | PINE BLUFF ARSENAL - PINE BLUFF, AR | 10,000 | 40,000 | 100,000 | 8 | 8 | 18 | 26 | 6 | 6 | 12 | 18 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E33010 / GRENADE, HAND OFFENSIVE, M111 |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|----------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 12.707 | - | 5.694 | 11.218 | - | 11.218 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 12.707 | - | 5.694 | 11.218 | - | 11.218 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 12.707 | - | 5.694 | 11.218 | - | 11.218 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round - M111(†) | 544.65 | 7,441 | 4.053 | - | - | - | 299.40 | 14,396 | 4.310 | 305.38 | 31,611 | 9.653 | - | - | - | 305.38 | 31,611 | 9.653 |
| Subtotal: Recurring Cost | - | - | 4.053 | - | - | - | - | - | 4.310 | - | - | 9.653 | - | - | - | - | - | 9.653 |
| Subtotal: Hardware Cost | - | - | 4.053 | - | - | - | - | - | 4.310 | - | - | 9.653 | - | - | - | - | - | 9.653 |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Reliability | - | - | 7.214 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Product Improvement Cost | - | - | 7.214 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.441 | - | - | - | - | - | 1.384 | - | - | 1.561 | - | - | - | - | - | 1.561 |
| Subtotal: Support - Production Engineering Cost | - | - | 1.441 | - | - | - | - | - | 1.384 | - | - | 1.561 | - | - | - | - | - | 1.561 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | - | - | - | - | - | - | 0.003 | - | - | - | - | - | 0.003 |
| Subtotal: Support - Quality Assurance Cost | - | - | - | - | - | - | - | - | - | - | - | 0.003 | - | - | - | - | - | 0.003 |
| Gross/Weapon System Cost | - | - | 12.707 | - | - | - | - | - | 5.694 | - | - | 11.218 | - | - | - | - | - | 11.218 |

Remarks:
Hardware costs have increased due to the inclusion of energetic composition of the grenade.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E33010 / GRENADE, HAND OFFENSIVE, M111 |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

(t) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | | | | Item Number / Title [DODIC]: E33010 / GRENADE, HAND OFFENSIVE, M111 | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|--------------------------------------|-------------|------|-------------------------|--------------------------------------|-----------------|---------------|------------------------------|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Complete Round - M111 ^(†) | | 2021 | TO BE SELECTED / TBS01 | C / FFP | Rock Island, IL | Jul 2021 | Oct 2022 | 14,396 | 299.40 | N | | |
| Complete Round - M111 ^(†) | | 2022 | TO BE SELECTED / TBS01 | C / FFP | Rock Island, IL | Mar 2022 | Mar 2023 | 31,611 | 305.38 | N | | |

^(†) indicates the presence of a P-21

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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Exhibit P-21, Production Schedule: PB 2022 Army | | | | | | | | | | | | | | | Date: May 2021 | | | | | | | | | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | | | | | | | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | | | | | | | | | | Item Number / Title [DODIC]: E33010 / GRENADE, HAND OFFENSIVE, M111 | | | | | | | | | |

| Cost Elements <i>(Units in Thousands)</i> | | | | | | Fiscal Year 2023 | | | | | | | | | | | | Fiscal Year 2024 | | | | | | | | | | | | BALANCE | |
|--|------------------|----|---------|-------------|--|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------|-------------|
| O C C # | M F R # | FY | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2022 | BAL DUE AS OF 1 OCT | Calendar Year 2023 | | | | | | | | | | | | Calendar Year 2024 | | | | | | | | | | | | |
| | | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | | S E P |

Complete Round - M111

Prior Years Deliveries: 7441

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|------|------|--------|------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|------|
| 1 | 2021 | ARMY | 14.396 | .000 | 14.396 | 1.000 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.396 | | | | | | | | | | | .000 | | | | |
| 1 | 2022 | ARMY | 31.611 | .000 | 31.611 | - | - | - | - | - | 3.200 | 3.200 | 3.200 | 3.200 | 3.200 | 2.312 | 2.200 | 2.200 | 2.299 | 2.200 | 2.200 | | | | | | | | | | | .000 |
| | | | | | | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | | | |

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| Exhibit P-21, Production Schedule: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types |
| Item Number / Title [DODIC]: E33010 / GRENADE, HAND OFFENSIVE, M111 | | |

| MFR Ref # | Manufacturer Name - Location | Production Rates (Each / Month) | | | Procurement Leadtime (Months) | | | | | | | |
|-----------|------------------------------|---------------------------------|----------------|--------------|-------------------------------|-----------------|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | | MSR For 2022 | 1-8-5 For 2022 | MAX For 2022 | Initial | | | | Reorder | | | |
| | | | | | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 | ALT Prior to Oct 1 | ALT After Oct 1 | Manufacturing PLT | Total After Oct 1 |
| 1 | TO BE SELECTED - TBS01 | 400 | 1,000 | 3,200 | 8 | 8 | 15 | 23 | 6 | 6 | 12 | 18 |

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E34001 / GRENADE, Hand, Smoke, Green, M18 [G940] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 173.379 | 2.480 | - | 2.559 | - | 2.559 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 173.379 | 2.480 | - | 2.559 | - | 2.559 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 173.379 | 2.480 | - | 2.559 | - | 2.559 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Load, Assemble, Pack (Lap) | 42.07 | 4,025,031 | 169.329 | 57.43 | 20,659 | 1.186 | - | - | - | 62.63 | 23,142 | 1.449 | - | - | - | 62.63 | 23,142 | 1.449 |
| FUZE,HAND GRENADE M201 | 8.42 | 212,325 | 1.788 | 9.20 | 21,485 | 0.198 | - | - | - | 10.24 | 24,067 | 0.246 | - | - | - | 10.24 | 24,067 | 0.246 |
| TOP, GREN | - | - | - | - | - | - | - | - | - | 1.18 | 24,993 | 0.029 | - | - | - | 1.18 | 24,993 | 0.029 |
| Grenade, Metal Parts Set | 1.91 | 217,491 | 0.415 | 1.95 | 22,312 | 0.044 | - | - | - | - | - | - | - | - | - | - | - | - |
| BODY, GREN | - | - | - | - | - | - | - | - | - | 1.18 | 24,993 | 0.029 | - | - | - | 1.18 | 24,993 | 0.029 |
| <i>Subtotal: Recurring Cost</i> | - | - | 171.531 | - | - | 1.428 | - | - | - | - | - | 1.755 | - | - | - | - | - | 1.755 |
| <i>Subtotal: Hardware Cost</i> | - | - | 171.531 | - | - | 1.428 | - | - | - | - | - | 1.755 | - | - | - | - | - | 1.755 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.830 | - | - | 0.833 | - | - | - | - | - | 0.802 | - | - | - | - | - | 0.802 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 1.830 | - | - | 0.833 | - | - | - | - | - | 0.802 | - | - | - | - | - | 0.802 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.018 | - | - | 0.009 | - | - | - | - | - | 0.002 | - | - | - | - | - | 0.002 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.018 | - | - | 0.009 | - | - | - | - | - | 0.002 | - | - | - | - | - | 0.002 |
| Support - Study & Analysis Cost | | | | | | | | | | | | | | | | | | |
| Study & Analysis | - | - | - | - | - | 0.211 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E34001 / GRENADE, Hand, Smoke, Green, M18 [G940] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| <i>Subtotal: Support - Study & Analysis Cost</i> | - | - | - | - | - | 0.211 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 173.379 | - | - | 2.480 | - | - | - | - | - | 2.559 | - | - | - | - | - | 2.559 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E34002 / GRENADE, Hand, Smoke, Yellow, M18 [G945] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 101.622 | 2.145 | - | 2.140 | - | 2.140 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 101.622 | 2.145 | - | 2.140 | - | 2.140 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 101.622 | 2.145 | - | 2.140 | - | 2.140 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Load, Assemble, Pack (Lap) | 43.36 | 2,233,434 | 96.837 | 58.82 | 13,216 | 0.777 | - | - | - | 69.23 | 18,139 | 1.256 | - | - | - | 69.23 | 18,139 | 1.256 |
| FUZE,HAND GRENADE M201 | 8.49 | 262,907 | 2.231 | 9.20 | 13,745 | 0.126 | - | - | - | 10.24 | 18,864 | 0.193 | - | - | - | 10.24 | 18,864 | 0.193 |
| TOP, GREN | - | - | - | - | - | - | - | - | - | 1.18 | 19,589 | 0.023 | - | - | - | 1.18 | 19,589 | 0.023 |
| Grenade, Metal Parts Set | 1.91 | 271,018 | 0.517 | 1.95 | 14,273 | 0.028 | - | - | - | - | - | - | - | - | - | - | - | - |
| BODY, GREN | - | - | - | - | - | - | - | - | - | 1.18 | 19,589 | 0.023 | - | - | - | 1.18 | 19,589 | 0.023 |
| <i>Subtotal: Recurring Cost</i> | - | - | 99.585 | - | - | 0.932 | - | - | - | - | - | 1.495 | - | - | - | - | - | 1.495 |
| <i>Subtotal: Hardware Cost</i> | - | - | 99.585 | - | - | 0.932 | - | - | - | - | - | 1.495 | - | - | - | - | - | 1.495 |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Reliability | - | - | - | - | - | 0.517 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | - | - | - | 0.517 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.015 | - | - | 0.692 | - | - | - | - | - | 0.641 | - | - | - | - | - | 0.641 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 2.015 | - | - | 0.692 | - | - | - | - | - | 0.641 | - | - | - | - | - | 0.641 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.022 | - | - | 0.004 | - | - | - | - | - | 0.004 | - | - | - | - | - | 0.004 |

UNCLASSIFIED

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E34002 / GRENADE, Hand, Smoke, Yellow, M18 [G945] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.022 | - | - | 0.004 | - | - | - | - | - | 0.004 | - | - | - | - | - | 0.004 |
| Gross/Weapon System Cost | - | - | 101.622 | - | - | 2.145 | - | - | - | - | - | 2.140 | - | - | - | - | - | 2.140 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E34003 / GRENADE, Hand, Smoke, Red, M18 |

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| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|----------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 51.949 | - | 2.000 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 51.949 | - | 2.000 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 51.949 | - | 2.000 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) | 516.00 | 96,930 | 50.016 | - | - | - | 82.01 | 21,033 | 1.725 | - | - | - | - | - | - | - | - | - |
| FUZE,HAND GRENADE M201 | 8.57 | 100,807 | 0.864 | - | - | - | 10.04 | 21,874 | 0.220 | - | - | - | - | - | - | - | - | - |
| TOP, GREN | - | - | - | - | - | - | 1.22 | 22,716 | 0.028 | - | - | - | - | - | - | - | - | - |
| GRENADE, METAL PARTS SET | 1.90 | 104,684 | 0.199 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BODY, GREN | - | - | - | - | - | - | 1.22 | 22,716 | 0.028 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 51.079 | - | - | - | - | - | 2.000 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 51.079 | - | - | - | - | - | 2.000 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.868 | - | - | - | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.868 | - | - | - | - | - | 0.000 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.003 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.003 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 51.949 | - | - | - | - | - | 2.000 | - | - | - | - | - | - | - | - | - |

UNCLASSIFIED

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E34004 / GRENADE, Hand, Smoke, Violet, M18 [G955] |

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|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 57.619 | 0.973 | 0.988 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 57.619 | 0.973 | 0.988 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 57.619 | 0.973 | 0.988 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|-----------------------|-------------------|--------------------------|-----------------------|-------------------|--------------------------|-----------------------|-------------------|--------------------------|-----------------------|-------------------|--------------------------|-----------------------|-------------------|--------------------------|-----------------------|-------------------|--------------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Load, Assemble, Pack (Lap) | 45.03 | 1,236,455 | 55.674 | 79.88 | 8,432 | 0.674 | 81.48 | 5,913 | 0.482 | - | - | - | - | - | - | - | - | - |
| FUZE,HAND GRENADE M201 | 8.40 | 88,701 | 0.745 | 9.20 | 8,355 | 0.077 | 10.04 | 6,150 | 0.062 | - | - | - | - | - | - | - | - | - |
| TOP, GREN | - | - | - | - | - | - | 1.21 | 6,387 | 0.008 | - | - | - | - | - | - | - | - | - |
| Grenade, Metal Parts Set | 1.90 | 92,111 | 0.175 | 1.95 | 8,434 | 0.016 | - | - | - | - | - | - | - | - | - | - | - | - |
| BODY, GREN | - | - | - | - | - | - | 1.22 | 6,387 | 0.008 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 56.595 | - | - | 0.767 | - | - | 0.559 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 56.595 | - | - | 0.767 | - | - | 0.559 | - | - | - | - | - | - | - | - | - |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Production Verification Test | - | - | - | - | - | 0.017 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | - | - | - | 0.017 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.006 | - | - | 0.190 | - | - | 0.426 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 1.006 | - | - | 0.190 | - | - | 0.426 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.018 | - | - | - | - | - | 0.003 | - | - | - | - | - | - | - | - | - |

UNCLASSIFIED

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E34004 / GRENADE, Hand, Smoke, Violet, M18 [G955] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.018 | - | - | - | - | - | 0.003 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 57.619 | - | - | 0.973 | - | - | 0.988 | - | - | - | - | - | - | - | - | - |

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|--|--|--|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E34005 / GRENADE, Hand Smoke Visual Restricted Terrain M106 [GG25] |

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| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|---------------|---------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 13.822 | 11.289 | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 13.822 | 11.289 | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 13.822 | 11.289 | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | - | - | 9.696 | 157.15 | 50,985 | 8.012 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 9.696 | - | - | 8.012 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 9.696 | - | - | 8.012 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | 0.104 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | 0.104 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Safety | - | - | - | - | - | 0.914 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | - | - | - | 0.914 | - | - | - | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 4.126 | - | - | 2.259 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 4.126 | - | - | 2.259 | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 13.822 | - | - | 11.289 | - | - | - | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E35800 / BODY GRENADE HAND PRAC M69 [G811] |

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|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 4.713 | 3.290 | 1.826 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 4.713 | 3.290 | 1.826 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 4.713 | 3.290 | 1.826 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 21.89 | 183,550 | 4.017 | 12.34 | 226,371 | 2.793 | 12.43 | 117,779 | 1.464 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 4.017 | - | - | 2.793 | - | - | 1.464 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 4.017 | - | - | 2.793 | - | - | 1.464 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.682 | - | - | 0.489 | - | - | 0.358 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 0.682 | - | - | 0.489 | - | - | 0.358 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.014 | - | - | 0.007 | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.014 | - | - | 0.007 | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 4.713 | - | - | 3.290 | - | - | 1.826 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 4582E34000 / Grenades, All Types | Item Number / Title [DODIC]: E35801 / BODY, PRACTICE HAND GRENADE, OFFENSIVE, M112 [GG38] |

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|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|-------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | - | 2.734 | 1.318 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | - | 2.734 | 1.318 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | - | 2.734 | 1.318 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | - | 16.18 | 148,929 | 2.410 | 16.50 | 62,534 | 1.032 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | - | - | - | 2.410 | - | - | 1.032 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | - | - | - | 2.410 | - | - | 1.032 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | 0.325 | - | - | 0.286 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | - | - | - | 0.325 | - | - | 0.286 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | - | - | - | 2.734 | - | - | 1.318 | - | - | - | - | - | - | - | - | - |

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types |
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| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|---------------|---------------|--------------|-------------|---------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 299.579 | 18.609 | 27.036 | 7.530 | - | 7.530 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 299.579 | 18.609 | 27.036 | 7.530 | - | 7.530 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 299.579 | 18.609 | 27.036 | 7.530 | - | 7.530 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes Signals, All Types.

(E62900) SMOKE POT PRACTICE M8

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 and 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 battalion units. This item is Code A, approved for service use.

(E44600) Signal Kit Personnel Distress Red FP AP/25S-5 Series

The Personnel Distress Signal Kit (Red) is primarily used by downed airmen or others exposed to emergency escape and evasion situations. There are seven (7) red signals in a Kit, one (1) hand fired launcher, and one (1) bandoleer assembly. The signals are propelled by a rocket motor with a time delay and are capable of penetrating foliage. This item is Code A, approved for service use.

(E46700) Signal, Hand Held Red Parachute Flare M126A1

The Family of Hand Held Signals are individually launched pyrotechnics used for signaling and illumination. The payload is launched by a small, fin stabilized rocket and reaches a height of 725 feet. The M126A1 is a red parachute flare used for night time battle field illumination, surface-to-air & surface-to-ground signaling. The flare burns for approximately 50 seconds. This item is Code A, approved for service use.

(E46800) Signal, Hand Held White Parachute Flare M127A1

The Family of Hand Held Signals are individually launched pyrotechnics used for signaling and illumination. The payload is launched by a small, fin stabilized rocket and reaches a height of 725 feet. The M127A1 is a white parachute flare used primarily for night time battle field illumination, surface-to-air & surface-to-ground signaling. The flare burns for approximately 50 seconds. This item is Code A, approved for service use.

(E47000) Signal, Hand Held Green Star Cluster M125A1

The Family of Hand Held Signals which are individually launched pyrotechnics used for signaling and illumination. The payload is launched by a small, fin stabilized rocket and reaches a height of 725 feet. M125A1 is a green star cluster signal used for signaling and illuminating missions. The payload is a cluster of five flares that burn for approximately 10 seconds. This item is Code A, approved for service use.

UNCLASSIFIED

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |

(E49105) CTG, Impulse, Countermeasure, BBU-35/B
 The BBU-35/B Impulse Cartridge is used to ignite and/or eject aircraft countermeasure flares, decoys and chaff (M206, M212, M211 and M1/M839/RR170 Series) designed to protect Army helicopters and fixed wing aircraft against Man-portable Air Defense Systems (MANPADS). The BBU-35/B replaces the M796 impulse cartridge used by the Army. The impulse cartridge functions after receiving an electrical signal from the Common Missile Warning System (CMWS). The impulse cartridge produces hot gases that ignites/pushes the flare/decoy payload out of the host aircraft. This item is Code A, approved for service use.

UNCLASSIFIED

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types |

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|---|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E44600 / SIGNAL KIT, Personnel Distress, A/P25S-5 Series [L119] | | A | | - / 21.275 | - / - | - / 7.734 | - / - | - / - | - / - |
| P-5 | E46700 / Signal, Hand Held Red Parachute Flare M126A1 [LA80] | | A | | - / 22.880 | - / - | - / 4.235 | - / - | - / - | - / - |
| P-5 | E46800 / Signal, Hand Held White Parachute Flare M127A1 [L312] | | A | | - / 141.932 | - / 7.549 | - / 0.300 | - / - | - / - | - / - |
| P-5 | E47000 / Signal, Hand Held Green Star Cluster M125A1 [L314] | | A | | - / 52.787 | - / 5.894 | - / 5.051 | - / - | - / - | - / - |
| P-5 | E49105 / CTG, Impulse, Countermeasure, BBU-35/B | | A | | - / 6.043 | - / - | - / 1.257 | - / - | - / - | - / - |
| P-5 | E62900 / SMOKE POT, Practice, M8 [K511] | P-5a | A | | - / 54.662 | - / 5.166 | - / 8.459 | - / 7.530 | - / - | - / 7.530 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 299.579 | - / 18.609 | - / 27.036 | - / 7.530 | - / - | - / 7.530 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$7.530 million supports the procurement of one variant of signals.

(E62900) Smoke Pot Practice M8
 This is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$7.530 million supports the procurement of 5,442 smoke pots. In FY 2022, funding in the amount of \$0.113 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments.
 TYPE CLASSIFICATION DATE: 1994

(E44600) Signal Kit Personnel Distress A/P25S-5 Series
 This is a training standard item used in both training and combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal
 TYPE CLASSIFICATION DATE: 1972. E44600 has no FY2022 funding request.

(E46700) Signal, Hand Held Red Parachute Flare M126A1
 This is a training standard item used in both training and combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal
 TYPE CLASSIFICATION DATE: 1983. E46700 has no FY2022 funding request.

(E46800) Signal, Hand Held White Parachute Flare M127A1

UNCLASSIFIED

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| <p>This is a training standard item used both training and combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal TYPE CLASSIFICATION DATE: 1983. E46800 has no FY2022 funding request.</p> <p>(E47000) Signal, Hand Held Green Star Cluster M125A1 This is a training standard item used in both training and combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal. TYPE CLASSIFICATION DATE: 1983. E47000 has no FY2022 funding request.</p> <p>(E49105) Cartridge, Impulse, BBU-35/B This is a training standard item used in both training and combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal. TYPE CLASSIFICATION DATE: May 2008. E49105 has no FY2022 funding request.</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types | Item Number / Title [DODIC]: E44600 / SIGNAL KIT, Personnel Distress, A/P25S-5 Series [L119] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|----------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 21.275 | - | 7.734 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 21.275 | - | 7.734 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 21.275 | - | 7.734 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 1,697.69 | 12,362 | 20.987 | - | - | - | 166.71 | 44,509 | 7.420 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 20.987 | - | - | - | - | - | 7.420 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 20.987 | - | - | - | - | - | 7.420 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.278 | - | - | - | - | - | 0.309 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | 0.278 | - | - | - | - | - | 0.309 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.010 | - | - | - | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.010 | - | - | - | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 21.275 | - | - | - | - | - | 7.734 | - | - | - | - | - | - | - | - | - |

UNCLASSIFIED

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types | Item Number / Title [DODIC]: E46700 / Signal, Hand Held Red Parachute Flare M126A1 [LA80] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|----------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 22.880 | - | 4.235 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 22.880 | - | 4.235 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 22.880 | - | 4.235 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Load, Assemble, Pack (Lap) | - | - | 22.251 | - | - | - | 65.27 | 55,924 | 3.650 | - | - | - | - | - | - | - | - | - |
| Box Metal M548 | - | - | 0.227 | - | - | - | 66.61 | 2,354 | 0.157 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 22.478 | - | - | - | - | - | 3.807 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 22.478 | - | - | - | - | - | 3.807 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.402 | - | - | - | - | - | 0.428 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.402 | - | - | - | - | - | 0.428 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 22.880 | - | - | - | - | - | 4.235 | - | - | - | - | - | - | - | - | - |

UNCLASSIFIED

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|--|---|---|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types | Item Number / Title [DODIC]: E46800 / Signal, Hand Held White Parachute Flare M127A1 [L312] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|----------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 141.932 | 7.549 | 0.300 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 141.932 | 7.549 | 0.300 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 141.932 | 7.549 | 0.300 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Load, Assemble, Pack (Lap) | - | - | 140.948 | 56.36 | 119,957 | 6.761 | 78.24 | 3,318 | 0.260 | - | - | - | - | - | - | - | - | - |
| Box Metal M548 | - | - | 0.196 | 43.45 | 5,051 | 0.219 | 66.61 | 139 | 0.009 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 141.144 | - | - | 6.980 | - | - | 0.269 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 141.144 | - | - | 6.980 | - | - | 0.269 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.776 | - | - | 0.565 | - | - | 0.027 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.776 | - | - | 0.565 | - | - | 0.027 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.012 | - | - | 0.004 | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.012 | - | - | 0.004 | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 141.932 | - | - | 7.549 | - | - | 0.300 | - | - | - | - | - | - | - | - | - |

UNCLASSIFIED

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|--|---|--|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types | Item Number / Title [DODIC]: E47000 / Signal, Hand Held Green Star Cluster M125A1 [L314] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 52.787 | 5.894 | 5.051 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 52.787 | 5.894 | 5.051 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 52.787 | 5.894 | 5.051 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Load, Assemble, Pack (Lap) | 4,279.70 | 12,060 | 51.613 | 52.71 | 102,102 | 5.382 | 58.96 | 72,983 | 4.303 | - | - | - | - | - | - | - | - | - |
| Box Metal M548 | 130.71 | 508 | 0.066 | 43.45 | 3,650 | 0.159 | 66.61 | 3,072 | 0.205 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 51.680 | - | - | 5.540 | - | - | 4.508 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 51.680 | - | - | 5.540 | - | - | 4.508 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.089 | - | - | 0.350 | - | - | 0.539 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 1.089 | - | - | 0.350 | - | - | 0.539 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.019 | - | - | 0.004 | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.019 | - | - | 0.004 | - | - | 0.004 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 52.787 | - | - | 5.894 | - | - | 5.051 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types | Item Number / Title [DODIC]: E49105 / CTG, Impulse, Countermeasure, BBU-35/B |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|--------------|----------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 6.043 | - | 1.257 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 6.043 | - | 1.257 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 6.043 | - | 1.257 | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | 6.043 | - | - | - | 3.31 | 366,466 | 1.213 | - | - | - | - | - | - | - | - | - |
| Subtotal: Recurring Cost | - | - | 6.043 | - | - | - | - | - | 1.213 | - | - | - | - | - | - | - | - | - |
| Subtotal: Hardware Cost | - | - | 6.043 | - | - | - | - | - | 1.213 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | 0.044 | - | - | - | - | - | - | - | - | - |
| Subtotal: Support - Production Engineering Cost | - | - | - | - | - | - | - | - | 0.044 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 6.043 | - | - | - | - | - | 1.257 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types | Item Number / Title [DODIC]: E62900 / SMOKE POT, Practice, M8 [K511] |

| | |
|---|------------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : A | MDAP/MAIS Code: |
|---|------------------------|

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|--|---------------|--------------|--------------|--------------|-------------|---------------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 54.662 | 5.166 | 8.459 | 7.530 | - | 7.530 |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 54.662 | 5.166 | 8.459 | 7.530 | - | 7.530 |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 54.662 | 5.166 | 8.459 | 7.530 | - | 7.530 |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| LOAD, ASSEMBLE, PACK (LAP) ^(†) | 41,270.36 | 1,099 | 45.356 | 696.52 | 3,561 | 2.480 | 643.96 | 6,523 | 4.201 | 656.84 | 5,442 | 3.575 | - | - | - | 656.84 | 5,442 | 3.575 |
| FUZE, SMOKE POT, FLOATING M208 ^(†) | 413.93 | 1,144 | 0.474 | 72.88 | 3,703 | 0.270 | 106.56 | 6,783 | 0.723 | 108.70 | 5,659 | 0.615 | - | - | - | 108.70 | 5,659 | 0.615 |
| INNER COVER ASSEMBLY ^(†) | 202.35 | 1,264 | 0.256 | 99.60 | 4,095 | 0.408 | 95.53 | 7,501 | 0.717 | 102.48 | 6,258 | 0.641 | - | - | - | 102.48 | 6,258 | 0.641 |
| OUTER COVER ASSEMBLY ^(†) | 254.34 | 1,264 | 0.321 | 85.16 | 4,095 | 0.349 | 81.67 | 7,501 | 0.613 | 87.63 | 6,258 | 0.548 | - | - | - | 87.63 | 6,258 | 0.548 |
| CONTAINER, USED ON SMOKE POT M8 ^(†) | 236.00 | 1,264 | 0.298 | 94.52 | 4,095 | 0.387 | 90.63 | 7,501 | 0.680 | 97.25 | 6,258 | 0.609 | - | - | - | 97.25 | 6,258 | 0.609 |
| <i>Subtotal: Recurring Cost</i> | - | - | 46.705 | - | - | 3.894 | - | - | 6.932 | - | - | 5.988 | - | - | - | - | - | 5.988 |
| <i>Subtotal: Hardware Cost</i> | - | - | 46.705 | - | - | 3.894 | - | - | 6.932 | - | - | 5.988 | - | - | - | - | - | 5.988 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 7.915 | - | - | 1.268 | - | - | 1.522 | - | - | 1.538 | - | - | - | - | - | 1.538 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 7.915 | - | - | 1.268 | - | - | 1.522 | - | - | 1.538 | - | - | - | - | - | 1.538 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.042 | - | - | 0.004 | - | - | 0.004 | - | - | 0.004 | - | - | - | - | - | 0.004 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types | Item Number / Title [DODIC]: E62900 / SMOKE POT, Practice, M8 [K511] |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Subtotal: Support - Quality Assurance Cost | - | - | 0.042 | - | - | 0.004 | - | - | 0.004 | - | - | 0.004 | - | - | - | - | - | 0.004 |
| Gross/Weapon System Cost | - | - | 54.662 | - | - | 5.166 | - | - | 8.459 | - | - | 7.530 | - | - | - | - | - | 7.530 |

(t) indicates the presence of a P-5a

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|--|--|--|---|--|--|--|--|--|--|--|--|
| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 6038E46900 / Signals, All Types | | | | Item Number / Title [DODIC]: E62900 / SMOKE POT, Practice, M8 [K511] | | | | |

| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty (Each) | Unit Cost (\$) | Specs Avail Now? | Date Revision Available | RFP Issue Date |
|---------------------------------|-------------|------|-------------------------------------|--------------------------------------|-------------------------|------------|------------------------|---------------|-------------------|------------------|-------------------------|----------------|
| LOAD, ASSEMBLE, PACK (LAP) | | 2020 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | ROCK ISLAND ARSENAL, IL | Jan 2020 | Jun 2021 | 3,561 | 696.52 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2021 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | ROCK ISLAND ARSENAL, IL | Apr 2021 | Aug 2022 | 6,523 | 643.96 | Y | | |
| LOAD, ASSEMBLE, PACK (LAP) | | 2022 | PINE BLUFF ARSENAL / PINE BLUFF, AR | PO | ROCK ISLAND ARSENAL, IL | Mar 2022 | Aug 2023 | 5,442 | 656.84 | Y | | |
| FUZE,SMOKE POT, FLOATING M208 | | 2020 | CHEMRING ORDNANCE, INC. / PERRY, FL | C / FFP | ROCK ISLAND ARSENAL, IL | Dec 2019 | Oct 2020 | 3,703 | 72.88 | Y | | |
| FUZE,SMOKE POT, FLOATING M208 | | 2021 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Jul 2021 | Jul 2022 | 6,783 | 106.56 | Y | | |
| FUZE,SMOKE POT, FLOATING M208 | | 2022 | TO BE SELECTED / TBS01 | C / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Mar 2023 | 5,659 | 108.70 | Y | | |
| INNER COVER ASSEMBLY | | 2020 | TOOL MASTERS INC. / TUSCUMBIA, AL | C / FFP | ROCK ISLAND ARSENAL, IL | Dec 2019 | Sep 2020 | 4,095 | 99.60 | Y | | |
| INNER COVER ASSEMBLY | | 2021 | TOOL MASTERS INC. / TUSCUMBIA, AL | Option / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Feb 2022 | 7,501 | 95.53 | Y | | |
| INNER COVER ASSEMBLY | | 2022 | TOOL MASTERS INC. / TUSCUMBIA, AL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Dec 2022 | 6,258 | 102.48 | Y | | |
| OUTER COVER ASSEMBLY | | 2020 | TOOL MASTERS INC. / TUSCUMBIA, AL | C / FFP | ROCK ISLAND ARSENAL, IL | Dec 2019 | Sep 2020 | 4,095 | 85.16 | Y | | |
| OUTER COVER ASSEMBLY | | 2021 | TOOL MASTERS INC. / TUSCUMBIA, AL | Option / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Feb 2022 | 7,501 | 81.67 | Y | | |
| OUTER COVER ASSEMBLY | | 2022 | TOOL MASTERS INC. / TUSCUMBIA, AL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Dec 2022 | 6,258 | 87.63 | Y | | |
| CONTAINER, USED ON SMOKE POT M8 | | 2020 | TOOL MASTERS INC. / TUSCUMBIA, AL | C / FFP | ROCK ISLAND ARSENAL, IL | Dec 2019 | Sep 2020 | 4,095 | 94.52 | Y | | |
| CONTAINER, USED ON SMOKE POT M8 | | 2021 | TOOL MASTERS INC. / TUSCUMBIA, AL | Option / FFP | ROCK ISLAND ARSENAL, IL | May 2021 | Feb 2022 | 7,501 | 90.63 | Y | | |
| CONTAINER, USED ON SMOKE POT M8 | | 2022 | TOOL MASTERS INC. / TUSCUMBIA, AL | Option / FFP | ROCK ISLAND ARSENAL, IL | Mar 2022 | Dec 2022 | 6,258 | 97.25 | Y | | |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

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| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | P-1 Line Item Number / Title: 8278E51200 / Simulators, All Types |
|--|--|

| | | |
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| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|---------------|---------------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 287.445 | 16.054 | 10.253 | 8.350 | - | 8.350 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 287.445 | 16.054 | 10.253 | 8.350 | - | 8.350 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 287.445 | 16.054 | 10.253 | 8.350 | - | 8.350 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes Simulators, All Types.

(E49700) M115A2 Artillery Ground Burst Simulator is a hand thrown device that is used in training to simulate battlefield noise and effects (shell in flight and ground explosion) during troop maneuvers. The simulator has a 6-10 second delay followed by a 2-4 second whistle ending with a flash and loud report; the surface danger zone is 35 meters. This item is Code A, approved for service use.

(E50200) M116A1 Hand Grenade Simulator is a hand-thrown device and is used in training to simulate battlefield noise and effects during troop maneuvers. It has a 5 to 10 second delay and a 15 meter surface danger zone. This item is Code A, approved for service use.

(E70600) M22 Anti-Tank Weapon Effect Signature Simulator (ATWESS) Guided Missile (GM) Rocket Simulator is used to simulate the TOW, DRAGON or VIPER, including report, flash and smoke through use of an adapter. It is compatible with the Multiple Integrated Laser Engagement System (MILES). This item is Code A, approved for service use.

(E88404) Simulators, Non-standard, Special Effects for CTCs Black smoke cartridge to simulate target kill. This item is launched with Omega 60 Force on target. This item is in development which is part of the Special Use Ammo Family. This item is Code B, not approved for service use.

(E88119) M34 Hostile Fire Simulator has replaced the M21 and is used for Force on Target training to simulate large caliber gunfire. The simulator emits an orange flash and white smoke visible at 1800 meters. The simulator is fired from the Omega 60B2 and the Omega 36. This item is Code A, approved for service use.

(E88125) XM35 Target Hit (White Star) Simulator has replaced the M25 and is used for Force on Target training to simulate a strike or target hit signal. The Simulator emits 8-12 white burning stars visible at 1800 meters. The simulator is fired from the Omega 60B2 and the Omega 36. This item is Code A, approved for service use.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition

P-1 Line Item Number / Title:
8278E51200 / Simulators, All Types

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E49700 / SIMULATOR, Projectile Ground Burst, M115A2 [L594] | | A | | - / 126.453 | - / 7.995 | - / 2.968 | - / 2.697 | - / - | - / 2.697 |
| P-5 | E50200 / SIMULATOR, Hand Grenade, M116A1 [L601] | | A | | - / 100.031 | - / 3.325 | - / 2.950 | - / 2.820 | - / - | - / 2.820 |
| P-5 | E70600 / SIMULATOR, Rocket, Antitank GM Lnchd, M22 (ATWESS) [LA77] | | A | | - / 52.619 | - / 4.734 | - / 0.799 | - / - | - / - | - / - |
| P-5 | E88119 / SIMULATOR, Hostile Fire, M34 | | A | | - / 3.895 | - / - | - / 0.894 | - / 1.362 | - / - | - / 1.362 |
| P-5 | E88125 / SIMULATOR, Target Hit, M35 (White Star) | | A | | - / 4.447 | - / - | - / 0.894 | - / 1.363 | - / - | - / 1.363 |
| P-5 | E88404 / SIMULATORS, Non-Standard, Special Effects, f/CTCs [LZ04] | | B | | - / - | - / - | - / 1.748 | - / 0.108 | - / - | - / 0.108 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 287.445 | - / 16.054 | - / 10.253 | - / 8.350 | - / - | - / 8.350 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
The FY 2022 Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$8.350 million supports the procurement of five variants of simulators

E49700 - SIMULATOR PROJ GND BURST M115A2
This is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$2.697 million supports the production of 83,263 Ground Burst Simulators. In FY 2022, funding in the amount of \$0.113 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments. TYPE CLASSIFICATION DATE: 1962

E50200 - SIMULATOR HAND GRENADE M116A1
This is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$2.820 million supports production of 90,077 M116A1 Grenades. TYPE CLASSIFICATION DATE: 1960

E70600 - SIMULATOR ANTITANK GM RKT M22 (ATWESS)
This is a training unique item not used in combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goal. E70600 has no FY2022 Funding Request.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 8278E51200 / Simulators, All Types |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| TYPE CLASSIFICATION DATE: 1984 | | |
| <p>E88119 - M34 HOSTILE FIRE SIMULATOR M34 This is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$1.362 million supports production of 116,516 simulators. TYPE CLASSIFICATION DATE: October 2006</p> | | |
| <p>E88125 - TARGET HIT (White Star) SIMULATOR M35 This is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$1.363 million supports production of 179,840 simulators. TYPE CLASSIFICATION DATE: October 2006</p> | | |
| <p>E88404 - SIMULATORS, NON STANDARD, SPECIAL EFFECTS FOR CTCS This is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$0.108 million supports production of 6,385 simulators. TYPE CLASSIFICATION DATE: TBD</p> | | |

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|---|--|--|--|--------------------|--|--|--|----------------|--|---------------------|---|--------------------|--|----------------------|--|---|--|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | Date: May 2021 | | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | | | | P-1 Line Item Number / Title: 8278E51200 / Simulators, All Types | | | | | Item Number / Title [DODIC]: E49700 / SIMULATOR, Projectile Ground Burst, M115A2 [L594] | | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | | | | | | MDAP/MAIS Code: | | | | | | |
| Resource Summary | | | | Prior Years | | FY 2020 | | FY 2021 | | FY 2022 Base | | FY 2022 OCO | | FY 2022 Total | | | |
| Procurement Quantity (Units in Each) | | | | - | | - | | - | | - | | - | | - | | | |
| Gross/Weapon System Cost (\$ in Millions) | | | | 126.453 | | 7.995 | | 2.968 | | 2.697 | | - | | 2.697 | | | |
| Less PY Advance Procurement (\$ in Millions) | | | | - | | - | | - | | - | | - | | - | | | |
| Net Procurement (P-1) (\$ in Millions) | | | | 126.453 | | 7.995 | | 2.968 | | 2.697 | | - | | 2.697 | | | |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | | - | | - | | - | | - | | - | | | |
| Total Obligation Authority (\$ in Millions) | | | | 126.453 | | 7.995 | | 2.968 | | 2.697 | | - | | 2.697 | | | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | | - | | - | | - | | - | | - | | - | |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | | - | | - | | - | | - | | - | | - | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | 124.237 | 18.66 | 386,509 | 7.212 | 26.04 | 90,303 | 2.351 | 26.57 | 83,263 | 2.212 | - | - | - | 26.57 | 83,263 | 2.212 |
| <i>Subtotal: Recurring Cost</i> | - | - | 124.237 | - | - | 7.212 | - | - | 2.351 | - | - | 2.212 | - | - | - | - | - | 2.212 |
| Subtotal: Hardware Cost | - | - | 124.237 | - | - | 7.212 | - | - | 2.351 | - | - | 2.212 | - | - | - | - | - | 2.212 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | - | - | - | - | - | - | 0.151 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | - | - | - | - | - | - | 0.151 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 2.204 | - | - | 0.780 | - | - | 0.462 | - | - | 0.479 | - | - | - | - | - | 0.479 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 2.204 | - | - | 0.780 | - | - | 0.462 | - | - | 0.479 | - | - | - | - | - | 0.479 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.012 | - | - | 0.003 | - | - | 0.003 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.012 | - | - | 0.003 | - | - | 0.003 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| Gross/Weapon System Cost | - | - | 126.453 | - | - | 7.995 | - | - | 2.968 | - | - | 2.697 | - | - | - | - | - | 2.697 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 8278E51200 / Simulators, All Types | Item Number / Title [DODIC]: E50200 / SIMULATOR, Hand Grenade, M116A1 [L601] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|----------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 100.031 | 3.325 | 2.950 | 2.820 | - | 2.820 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 100.031 | 3.325 | 2.950 | 2.820 | - | 2.820 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 100.031 | 3.325 | 2.950 | 2.820 | - | 2.820 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 634.65 | 151,126 | 95.912 | 23.88 | 128,396 | 3.066 | 25.09 | 93,206 | 2.339 | 25.58 | 90,077 | 2.304 | - | - | - | 25.58 | 90,077 | 2.304 |
| <i>Subtotal: Recurring Cost</i> | - | - | 95.912 | - | - | 3.066 | - | - | 2.339 | - | - | 2.304 | - | - | - | - | - | 2.304 |
| <i>Subtotal: Hardware Cost</i> | - | - | 95.912 | - | - | 3.066 | - | - | 2.339 | - | - | 2.304 | - | - | - | - | - | 2.304 |
| Support - Acceptance Testing Cost | | | | | | | | | | | | | | | | | | |
| First Article Test | - | - | 0.246 | - | - | - | - | - | 0.136 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Acceptance Testing Cost</i> | - | - | 0.246 | - | - | - | - | - | 0.136 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 3.858 | - | - | 0.256 | - | - | 0.473 | - | - | 0.513 | - | - | - | - | - | 0.513 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 3.858 | - | - | 0.256 | - | - | 0.473 | - | - | 0.513 | - | - | - | - | - | 0.513 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.014 | - | - | 0.003 | - | - | 0.003 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.014 | - | - | 0.003 | - | - | 0.003 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| Gross/Weapon System Cost | - | - | 100.031 | - | - | 3.325 | - | - | 2.950 | - | - | 2.820 | - | - | - | - | - | 2.820 |

Remarks:
Production Engineering increased due to change in planned procurement of simulators and reflects the pro-rated share for the family of Simulator support.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 8278E51200 / Simulators, All Types | Item Number / Title [DODIC]: E70600 / SIMULATOR, Rocket, Antitank GM Lnchd, M22 (ATWESS) [LA77] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 52.619 | 4.734 | 0.799 | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 52.619 | 4.734 | 0.799 | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 52.619 | 4.734 | 0.799 | - | - | - |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| Complete Round | 123.16 | 396,724 | 48.860 | 13.64 | 262,037 | 3.574 | 16.88 | 45,031 | 0.760 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Recurring Cost</i> | - | - | 48.861 | - | - | 3.574 | - | - | 0.760 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Hardware Cost</i> | - | - | 48.861 | - | - | 3.574 | - | - | 0.760 | - | - | - | - | - | - | - | - | - |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 3.743 | - | - | 1.157 | - | - | 0.032 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 3.743 | - | - | 1.157 | - | - | 0.032 | - | - | - | - | - | - | - | - | - |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.015 | - | - | 0.003 | - | - | 0.007 | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.015 | - | - | 0.003 | - | - | 0.007 | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost | - | - | 52.619 | - | - | 4.734 | - | - | 0.799 | - | - | - | - | - | - | - | - | - |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 8278E51200 / Simulators, All Types | | | Item Number / Title [DODIC]: E88119 / SIMULATOR, Hostile Fire, M34 | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (<i>Units in Each</i>) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | | | 3.895 | - | 0.894 | 1.362 | - | 1.362 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | | | 3.895 | - | 0.894 | 1.362 | - | 1.362 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | | | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | | | 3.895 | - | 0.894 | 1.362 | - | 1.362 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | 3.895 | - | - | - | 5.00 | 171,648 | 0.858 | 6.69 | 116,516 | 0.779 | - | - | - | 6.69 | 116,516 | 0.779 |
| <i>Subtotal: Recurring Cost</i> | - | - | 3.895 | - | - | - | - | - | 0.858 | - | - | 0.779 | - | - | - | - | - | 0.779 |
| <i>Subtotal: Hardware Cost</i> | - | - | 3.895 | - | - | - | - | - | 0.858 | - | - | 0.779 | - | - | - | - | - | 0.779 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | 0.036 | - | - | 0.582 | - | - | - | - | - | 0.582 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | 0.036 | - | - | 0.582 | - | - | - | - | - | 0.582 |
| Gross/Weapon System Cost | - | - | 3.895 | - | - | - | - | - | 0.894 | - | - | 1.362 | - | - | - | - | - | 1.362 |

Remarks:

The FY 2022 Unit Cost increased based on escalation factors and a lower quantity range than FY 2021.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 8278E51200 / Simulators, All Types | Item Number / Title [DODIC]: E88125 / SIMULATOR, Target Hit, M35 (White Star) |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|--------------|----------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 4.447 | - | 0.894 | 1.363 | - | 1.363 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 4.447 | - | 0.894 | 1.363 | - | 1.363 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 4.447 | - | 0.894 | 1.363 | - | 1.363 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | 4.447 | - | - | - | 6.50 | 132,000 | 0.858 | 6.69 | 179,840 | 1.203 | - | - | - | 6.69 | 179,840 | 1.203 |
| <i>Subtotal: Recurring Cost</i> | - | - | 4.447 | - | - | - | - | - | 0.858 | - | - | 1.203 | - | - | - | - | - | 1.203 |
| <i>Subtotal: Hardware Cost</i> | - | - | 4.447 | - | - | - | - | - | 0.858 | - | - | 1.203 | - | - | - | - | - | 1.203 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | 0.036 | - | - | 0.159 | - | - | - | - | - | 0.159 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | 0.036 | - | - | 0.159 | - | - | - | - | - | 0.159 |
| Gross/Weapon System Cost | - | - | 4.447 | - | - | - | - | - | 0.894 | - | - | 1.363 | - | - | - | - | - | 1.363 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | P-1 Line Item Number / Title: 8278E51200 / Simulators, All Types | Item Number / Title [DODIC]: E88404 / SIMULATORS, Non-Standard, Special Effects, f/CTCs [LZ04] |

| ID Code (A=Service Ready, B=Not Service Ready) : B | | | | MDAP/MAIS Code: | | | |
|---|--|-------------|---------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (<i>Units in Each</i>) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | | - | - | 1.748 | 0.108 | - | 0.108 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | | - | - | 1.748 | 0.108 | - | 0.108 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | | - | - | 1.748 | 0.108 | - | 0.108 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | - | - | - | - | 15.44 | 108,650 | 1.678 | 16.06 | 6,385 | 0.103 | - | - | - | 16.06 | 6,385 | 0.103 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | 1.678 | - | - | 0.103 | - | - | - | - | - | 0.103 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | 1.678 | - | - | 0.103 | - | - | - | - | - | 0.103 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | 0.070 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | 0.070 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | 1.748 | - | - | 0.108 | - | - | - | - | - | 0.108 |

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | P-1 Line Item Number / Title: 9847E97900 / REACTIVE ARMOR TILES |
|--|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|-------------|---------|---------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | - | - | - | 17.755 | - | 17.755 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | - | - | - | 17.755 | - | 17.755 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | - | - | - | 17.755 | - | 17.755 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Thousands</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Reactive armor is an add-on armor to the base vehicle configuration. This armor reacts based on the impact of a threat, reducing or eliminating the damage to the protected vehicle, thus increasing its survivability. Reactive armor tiles vary based on the platform installation design, vehicle threat requirements, and weight margins of the supported platform. It is most effective in protecting against residuals, shaped charges and some kinetic energy threats.

(ES97911) - PROJ, Combat Vehicle Reactive Armor Tile

The RAT Program was designated as a Program of Record in August 2018 in support of US Government developed tile configurations. Initial production of the US government developed tiles will support achieving the Directed Requirement (DR) for Reactive Armor Tiles and Installation Kits for five (5) armored brigade combat teams consisting of multiple combat platform types. Additionally, these tiles will be painted with the new signature management paint. Newly procured tiles will be painted at the production site, and legacy tiles will be painted as part of the refurbishment process and on site if tiles have already been placed in Army Pre-Positioned Stock. Production beyond the Directed Requirement will take place to meet the Total Munitions Requirements established by G-3/5/7 and to replace consumed tiles. The Vehicle Protection System office is the centralized manager of RAT for the ground combat systems responsible for the accountability and acquisition of tiles.

| Secondary Distribution | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|-------------------------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|
| Army | | | | | | | | | |
| Quantity | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority | - | - | 17.755 | - | 17.755 | - | - | - | - |
| Total: | | | | | | | | | |
| Secondary Distribution | | | | | | | | | |
| Quantity | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority | - | - | 17.755 | - | 17.755 | - | - | - | - |

UNCLASSIFIED

| | | |
|--|--|---|
| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition | | P-1 Line Item Number / Title: 9847E97900 / REACTIVE ARMOR TILES |

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|---------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E97911 / COMBAT VEHICLE RAT | | | | - / - | - / - | - / - | - / 17.755 | - / - | - / 17.755 |
| P-40 | Total Gross/Weapon System Cost | | | | - / - | - / - | - / - | - / 17.755 | - / - | - / 17.755 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The FY 2022 Budget supports the reactive armor tile purchase of tiles for the Armored Multi-Purpose Vehicle (AMPV).
 In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.
 FY 2022 Total Base dollars in the amount of \$17.755 million supports procurement of Reactive Armor Tiles for AMPV vehicles.

UNCLASSIFIED

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|---|--|--|---|------------------------|----------------|--|--------------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47 | | | P-1 Line Item Number / Title: 9847E97900 / REACTIVE ARMOR TILES | | | Item Number / Title [DODIC]: E97911 / COMBAT VEHICLE RAT | | |
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | - | - | - | 17.755 | - | 17.755 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | - | - | - | 17.755 | - | 17.755 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | - | - | - | 17.755 | - | 17.755 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Thousands) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|-------------------------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| XM19 Hardware | - | - | - | - | - | - | - | - | - | 2.500 | 3,552 | 8.880 | - | - | - | 2.500 | 3,552 | 8.880 |
| XM44 Hardware | - | - | - | - | - | - | - | - | - | 2.800 | 1,344 | 3.763 | - | - | - | 2.800 | 1,344 | 3.763 |
| M3 Hardware | - | - | - | - | - | - | - | - | - | 1.700 | 1,728 | 2.938 | - | - | - | 1.700 | 1,728 | 2.938 |
| M4 Hardware | - | - | - | - | - | - | - | - | - | 0.600 | 432 | 0.259 | - | - | - | 0.600 | 432 | 0.259 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 15.840 | - | - | - | - | - | 15.840 |
| Non Recurring Cost | | | | | | | | | | | | | | | | | | |
| Initial Spares | - | - | - | - | - | - | - | - | - | 2.379 | 805 | 1.915 | - | - | - | 2.379 | 805 | 1.915 |
| <i>Subtotal: Non Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 1.915 | - | - | - | - | - | 1.915 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 17.755 | - | - | - | - | - | 17.755 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 17.755 | - | - | - | - | - | 17.755 |

| Secondary Distribution | | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------------------|----------------------------|---------|---------|--------------|-------------|---------------|
| Army | Quantity | - | - | - | - | - |
| | Total Obligation Authority | - | - | 17.755 | - | 17.755 |
| Total: | Quantity | - | - | - | - | - |
| Secondary Distribution | Total Obligation Authority | - | - | 17.755 | - | 17.755 |

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2022 Army Date: May 2021

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous | P-1 Line Item Number / Title: 0684EB0016 / Ammo Components, All Types |
|--|---|

| | | |
|---|--|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|---|--|-------------------------------------|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|--------------|--------------|--------------|-------------|---------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity <i>(Units in Each)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost <i>(\$ in Millions)</i> | 729.332 | 2.661 | 3.476 | 2.784 | - | 2.784 | - | - | - | - | - | - |
| Less PY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) <i>(\$ in Millions)</i> | 729.332 | 2.661 | 3.476 | 2.784 | - | 2.784 | - | - | - | - | - | - |
| Plus CY Advance Procurement <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority <i>(\$ in Millions)</i> | 729.332 | 2.661 | 3.476 | 2.784 | - | 2.784 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares <i>(\$ in Millions)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost <i>(\$ in Dollars)</i> | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i> | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes Ammunition Components All Types - Component and Renovation of Field Stock and Weapon Component in support of Proof Acceptance Testing efforts:

Component and Renovation (C&R) of Field Stock funds support the renovation of unserviceable training and combat ammunition to bring them back to a serviceable condition at a cost that is less than new procurement. Additionally, funds support Army Test and Evaluation Command (ATEC) Special Tests, First Article Tests, Renovation of Field Stocks and Proof of Acceptance Tests used in both training and combat ammunition.

Justification:

FY 2022 Base procurement dollars in the amount of \$1.456 million support the Components and Renovation of Field Stock (C&R) effort. C&R supports the renovation of unserviceable training and combat ammunition, returning unserviceable items to issuable, serviceable condition at a substantial cost savings to the Army when compared to costs to demilitarize and procure new, replacement stock. Proposed C&R efforts undergo cost analysis to compare proposed renovation costs or rework efforts to the cost associated with demilitarization and new procurement to ensure efforts conducted under C&R result in a cost savings to the Army. The efforts are primarily focused on condition codes E and F within Army inventory.

FY 2022 Base procurement dollars in the amount of \$1.328 million supports several initiatives at Aberdeen Test Center (ATC) and Yuma Test Center (YTC).

At ATC, continue a replacement and procurement program for weapons and weapon components that are worn during testing of production ammunition items. Typical purchases include: rifle/carbine/machine gun barrels, receivers, and parts; large caliber barrels; small and medium caliber Mann-type test barrels, mortar barrels and bipod/baseplates.

At YTC, continue to acquire and replace weapon components required for continued support of the Production Acceptance Test (PAT) as part of the indirect fire test mission. Purchases include components such as breeches and tubes for medium to large caliber mortars and cannons.

At YTC, continue to procure replacement parts for both large and small caliber direct fire weapon systems for production based support. The primary items to be purchased are recoils, breeches, cradles, and gun tubes for both 120mm M256 and 105mm M68 cannons. In addition, spares will be obtained for 25mm and small arms weapon systems, along with other supporting equipment such as solenoids and bore-sighting equipment.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous | P-1 Line Item Number / Title: 2624EA0055 / Items Less Than \$5 Million (AMMO) |
|---|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|--------------|---------------|---------------|-------------|---------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 203.232 | 9.224 | 10.580 | 17.797 | - | 17.797 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 203.232 | 9.224 | 10.580 | 17.797 | - | 17.797 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 203.232 | 9.224 | 10.580 | 17.797 | - | 17.797 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line includes Miscellaneous Ammunition Items Under \$5 million.

(E00300) CTG 12 GAUGE SHOTGUN 7 1/2 CHILLED SHOT is a 12 gauge 2 3/4 inch round with #7 1/2 pellets (approximately 2.39mm (0.094") diameter and weighs about 1.25 grains each) and can be fired out of the M26, M1014, Mossberg Model 500/590, and Remington 870/MCS shotguns. This item is Code A, approved for service use.

(E03001) CTG, CAL .30 BLANK is used for salute ceremonies by Veteran Organizations in the M1 Garand rifles without being equipped with a firing adapter. It can be identified by the absence of a bullet and a rosette crimped casemouth. This item is Code A, approved for service use.

(E03701) CTG, .300 Winchester Magnum (WinMag) MK248 procurement supports the M2010 Enhanced Sniper Rifle (ESR). It consists of an Open Tip Match (OTM) bullet, brass case cartridge, large rifle leadstypnate primer, and smokeless small arms propellant. This item is Code A, approved for service use.

(E03710) CTG, .338cal Norma Magnum, AP, XM1162 f/Rifle procurement supports the Mk22 Precision Sniper Rifle (PSR). It is composed of a standard brass cartridge case, propellant, percussion primer and armor piercing projectile. This item is Code A, approved for service use.

(E03715) CTG, .30cal Norma Magnum, XM1163 f/Rifle procurement supports the Mk22 Precision Sniper Rifle (PSR). It is composed of a standard brass cartridge case, propellant, percussion primer and copper jacketed projectile. This item is Code A, approved for service use.

(E92100) CTG 12 GAUGE BREACHING ROUND, M1030 provides the capability to Soldiers to effectively and safely breach doors with the Mossberg 500/590 and Remington 870/MCS shotguns. The 12-gauge door-breaching cartridge is intended to destroy locks and fixtures on doors and automobiles with little or no collateral damage to the interior. This item is Code A, approved for service use.

(E99101) SPECIAL TRAINING AMMO includes procurement of nonstandard and commercially-available specialty munitions and energetic materiel in support of United States Army troop training requirements defined by the Standards in Training Commission (STRAC) and set forth in Unit Programs of Instruction (POIs). Requirements and authorizations issued by Army G-3 are in accordance with Army Regulation (AR) 350-38 and are vetted through the Army Munitions Requirements Working Group and Council of Colonels. Unit requirements funded by this program include the US Army Military District of Washington, National Guard Bureau and Army Reserve, National and Joint Readiness Training Centers, and US Army Parachute Team.

UNCLASSIFIED

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous | | P-1 Line Item Number / Title: 2624EA0055 / Items Less Than \$5 Million (AMMO) |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |

(E99222) Foreign Weapons Training Ammunition. Foreign weapons ammunition procures munitions that have not been Type Classified, Materiel Released or Fielded for standard use by United States Army or other DoD services. It is not stocked/procured in standard DoD supply system. Funds will be used to purchase foreign (Non NATO) standard munitions, training devices and materials, conduct safety and quality assessments, and ship the munitions to their required destination.

(EA0600) AMMUNITION PROGRAM SUPPORT enhances the management and distribution of ammunition. This funding is used to enhance all aspects of the ammunition life cycle through analysis, applied improvements, and demand requirements in support of warfighter requirements. Support funded by this line ensures critical efficient and effective ammunition management.

(EA0960) USAMTU FT BENNING (United States Army Marksmanship Training Unit). This budget line funds procurement of nonstandard and commercially-available specialty munitions and energetic materiel in support of US Army Marksmanship Unit training requirements defined by the Standards in Training Commission (STRAC) and set forth in Unit Programs of Instruction (POIs). Requirements and authorizations issued by Army G-3 are in accordance with Army Regulation (AR) 350-38 and are vetted through the Army Munitions Requirements Working Group and Council of Colonels.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous **P-1 Line Item Number / Title:** 2624EA0055 / Items Less Than \$5 Million (AMMO)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | E00300 / CARTRIDGE 12 GAUGE SHOTGUN 7 1/2 CHILLED SHOT [A014] | | A | | - / 0.218 | - / 0.011 | - / 0.011 | - / 0.011 | - / - | - / 0.011 |
| P-5 | E03001 / CTG, .30cal Blank, M1909, Single [A222] | | A | | - / 30.168 | - / - | - / 1.478 | - / 1.621 | - / - | - / 1.621 |
| P-5 | E03701 / CTG, .300cal Win Mag, MK248 w/Mods (7.62x67mm) [A191] | | A | | - / 15.283 | - / 1.000 | - / 0.969 | - / 0.170 | - / - | - / 0.170 |
| P-5 | E03710 / CTG, .338cal Norma Magnum, AP, XM1162 f/Rifle | | | | - / - | - / - | - / - | - / 3.818 | - / - | - / 3.818 |
| P-5 | E03715 / CTG, .30cal Norma Magnum, XM1163 f/Rifle | P-5a | | | - / - | - / - | - / - | - / 4.854 | - / - | - / 4.854 |
| P-5 | E92100 / CTG, 12 Gauge Breaching Round, M1030 [AA54] | | A | | - / 10.242 | - / - | - / 0.822 | - / 0.602 | - / - | - / 0.602 |
| P-40a | E99101 / Special Training Ammo: | | | | - / 34.362 | - / 1.091 | - / 0.619 | - / 0.474 | - / - | - / 0.474 |
| P-40a | E99222 / Foreign Weapons Training Ammunition | | | | - / 1.631 | - / 0.497 | - / 0.499 | - / 0.324 | - / - | - / 0.324 |
| P-40a | EA0600 / AMMUNITION PROGRAM SUPPORT | | | | - / 71.123 | - / 4.869 | - / 4.895 | - / 4.703 | - / - | - / 4.703 |
| P-40a | EA0960 / USAMTU FT BENNING | | | | - / 40.205 | - / 1.756 | - / 1.287 | - / 1.220 | - / - | - / 1.220 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 203.232 | - / 9.224 | - / 10.580 | - / 17.797 | - / - | - / 17.797 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements in accordance with Department of Defense Instruction 3000.04 (Munitions Requirements Process) and Army Regulation 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support Office of the Secretary of Defense (OSD) approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), these items are necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2022 Total Base dollars in the amount of \$17.786 million supports the procurement of 4.318 million cartridges.

FY 2022 Base dollars in the amount of \$0.011 million support the enduring COCOM requirement for procurement of 0.027 million 12 Gauge Shotgun 7 1/2 Chilled Shot cartridges to deter potential adversaries and support the European Deterrence Initiative.

(E00300) CTG 12 GAUGE SHOTGUN 7.5 CHILLED SHOT is a war reserve item used in combat. The request builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base dollars in the amount of \$0.011 million support the enduring COCOM requirement for procurement of 0.027 million 12 Gauge Shotgun 7.5 Chilled cartridges to deter potential adversaries and support the European Deterrence Initiative.
 Type Classification date: November 1975.

(E03001) CTG, CAL .30 BLANK, M1909 is a training unique item not used in combat. The FY 2022 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$1.621 million supports the procurement of 2.419 million .30 Caliber Blank M11909 cartridges.

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| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous | | P-1 Line Item Number / Title: 2624EA0055 / Items Less Than \$5 Million (AMMO) |
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
| Line Item MDAP/MAIS Code: N/A | | |
| Type classification date: 1917 | | |
| <p>(E03701) CTG .300 Winchester Magnum (WinMag) MK248 is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2022 Base procurement dollars in the amount of \$0.170 million supports the procurement of 0.146 million MK248 cartridges. Type classification date: October 2012</p> <p>(E03710) CTG, .338cal Norma Magnum, AP, XM1162 f/Rifle is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2022 Base procurement dollars in the amount of \$3.818 million supports the procurement of 0.311 million, XM1162 f/Rifle cartridges. E03710 is a new start in FY 2022. Type classification date: Pending</p> <p>(E03715) CTG, .30cal Norma Magnum, XM1163 f/Rifle is a training standard item used in both training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2022 Base procurement dollars in the amount of \$4.854 million supports the procurement of 1.242 million, XM1163 f/Rifle cartridges. E03715 is a new start in FY 2022. Type classification date: Pending</p> <p>(E92100) CTG 12 GAUGE BREACHING ROUND M1030 is a training standard item used in training and combat. The FY 2022 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2022 Base procurement dollars in the amount of \$0.602 million supports the procurement of 0.201 million M1030 12 Gauge Breaching Rounds. Type classification date: October 2007</p> <p>(E99101) Special Training Ammunition. The FY 2022 funds will procure nonstandard and commercially-available specialty munitions and energetic materiel in support of FY 2022 US Army troop training requirements in accordance with DA G3 authorizations. The FY 2022 Base Requirement procurement dollars in the amount of \$0.474 million support Unit training requirements across various Army Units. Authorizations issued under this program vary annually and are reviewed/updated during semi-annual Army Munitions Requirements Working Groups and Councils of Colonels.</p> <p>(E99222) Foreign Weapons Training Ammunition. FY 2022 funds will be used to procure Non DOD Standard Ammunition (NSA), related Non DOD Standard Weapons Systems (NSWS), as well as related training aids for Army units supporting the Regionally Aligned Forces (RAF) mission. Army units will conduct preparation training with Non-standard weapons and munitions before deployment in order to be trained to support requirements, including operational missions, bilateral and multilateral military exercises and security cooperation activities. The FY 2022 Base procurement dollars in the amount of \$0.324 million supports Non Standard Ammunition initiatives.</p> <p>(EA0600) Ammunition Program Support. The FY 2022 Requirements request in the amount of \$4.703 million provides critical support to efficiently and effectively manage ammunition.</p> <p>(EA0960) USAMTU Ft. BENNING. The FY 2022 funds will procure nonstandard and commercially-available specialty munitions and energetic materiel in support of FY 2022 US Army Marksmanship Unit training requirements in accordance with DA G3 authorizations. The FY 2022 Base Requirement procurement dollars in the amount of \$1.220 million support Army Marksmanship Unit FY 2021 training requirements. Authorizations issued under this program vary annually and are reviewed/updated during semi-annual Army Munitions Requirements Working Groups and Councils of Colonels.</p> | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 50 | P-1 Line Item Number / Title: 2624EA0055 / Items Less Than \$5 Million (AMMO) | Item Number / Title [DODIC]: E00300 / CARTRIDGE 12 GAUGE SHOTGUN 7 1/2 CHILLED SHOT [A014] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|--------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 0.218 | 0.011 | 0.011 | 0.011 | - | 0.011 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 0.218 | 0.011 | 0.011 | 0.011 | - | 0.011 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 0.218 | 0.011 | 0.011 | 0.011 | - | 0.011 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 0.32 | 566,586 | 0.181 | 0.29 | 30,000 | 0.009 | 0.29 | 37,931 | 0.011 | 0.29 | 27,407 | 0.008 | - | - | - | 0.29 | 27,407 | 0.008 |
| <i>Subtotal: Recurring Cost</i> | - | - | 0.181 | - | - | 0.009 | - | - | 0.011 | - | - | 0.008 | - | - | - | - | - | 0.008 |
| <i>Subtotal: Hardware Cost</i> | - | - | 0.181 | - | - | 0.009 | - | - | 0.011 | - | - | 0.008 | - | - | - | - | - | 0.008 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.037 | - | - | 0.002 | - | - | 0.000 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.037 | - | - | 0.002 | - | - | 0.000 | - | - | 0.003 | - | - | - | - | - | 0.003 |
| Gross/Weapon System Cost | - | - | 0.218 | - | - | 0.011 | - | - | 0.011 | - | - | 0.011 | - | - | - | - | - | 0.011 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 50 | | | | P-1 Line Item Number / Title: 2624EA0055 / Items Less Than \$5 Million (AMMO) | | | | Item Number / Title [DODIC]: E03001 / CTG, .30cal Blank, M1909, Single [A222] | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | | | MDAP/MAIS Code: | | | | | |
| Resource Summary | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | | |
| Procurement Quantity (Units in Each) | | | | - | - | - | - | - | - | | |
| Gross/Weapon System Cost (\$ in Millions) | | | | 30.168 | - | 1.478 | 1.621 | - | 1.621 | | |
| Less PY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - | | |
| Net Procurement (P-1) (\$ in Millions) | | | | 30.168 | - | 1.478 | 1.621 | - | 1.621 | | |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - | | |
| Total Obligation Authority (\$ in Millions) | | | | 30.168 | - | 1.478 | 1.621 | - | 1.621 | | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | - | - | - | - | - | | |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | - | - | - | - | - | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 49.66 | 578,748 | 28.742 | - | - | - | 0.53 | 2,256,222 | 1.196 | 0.53 | 2,418,693 | 1.282 | - | - | - | 0.53 | 2,418,693 | 1.282 |
| <i>Subtotal: Recurring Cost</i> | - | - | 28.742 | - | - | - | - | - | 1.196 | - | - | 1.282 | - | - | - | - | - | 1.282 |
| <i>Subtotal: Hardware Cost</i> | - | - | 28.742 | - | - | - | - | - | 1.196 | - | - | 1.282 | - | - | - | - | - | 1.282 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 1.172 | - | - | - | - | - | 0.282 | - | - | 0.334 | - | - | - | - | - | 0.334 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 1.172 | - | - | - | - | - | 0.282 | - | - | 0.334 | - | - | - | - | - | 0.334 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.255 | - | - | - | - | - | - | - | - | 0.005 | - | - | - | - | - | 0.005 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.255 | - | - | - | - | - | - | - | - | 0.005 | - | - | - | - | - | 0.005 |
| Gross/Weapon System Cost | - | - | 30.168 | - | - | - | - | - | 1.478 | - | - | 1.621 | - | - | - | - | - | 1.621 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 50 | | P-1 Line Item Number / Title: 2624EA0055 / Items Less Than \$5 Million (AMMO) |
| | | Item Number / Title [DODIC]: E03701 / CTG, .300cal Win Mag, MK248 w/Mods (7.62x67mm) [A191] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 15.283 | 1.000 | 0.969 | 0.170 | - | 0.170 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 15.283 | 1.000 | 0.969 | 0.170 | - | 0.170 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 15.283 | 1.000 | 0.969 | 0.170 | - | 0.170 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 1.14 | 10,664,071 | 12.118 | 0.91 | 1,066,483 | 0.970 | 1.00 | 930,585 | 0.931 | 1.04 | 146,415 | 0.152 | - | - | - | 1.04 | 146,415 | 0.152 |
| <i>Subtotal: Recurring Cost</i> | - | - | 12.114 | - | - | 0.970 | - | - | 0.931 | - | - | 0.152 | - | - | - | - | - | 0.152 |
| <i>Subtotal: Hardware Cost</i> | - | - | 12.114 | - | - | 0.970 | - | - | 0.931 | - | - | 0.152 | - | - | - | - | - | 0.152 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 3.156 | - | - | 0.025 | - | - | 0.034 | - | - | 0.013 | - | - | - | - | - | 0.013 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 3.156 | - | - | 0.025 | - | - | 0.034 | - | - | 0.013 | - | - | - | - | - | 0.013 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | 0.007 | - | - | 0.005 | - | - | 0.005 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | 0.007 | - | - | 0.005 | - | - | 0.005 | - | - | 0.005 | - | - | - | - | - | 0.005 |
| Gross/Weapon System Cost | - | - | 15.283 | - | - | 1.000 | - | - | 0.969 | - | - | 0.170 | - | - | - | - | - | 0.170 |

Remarks:

Unit price increase from FY 2021 to FY 2022 due to the significant reduction in the number of rounds being ordered.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 50 | | | | | | P-1 Line Item Number / Title: 2624EA0055 / Items Less Than \$5 Million (AMMO) | | | | | | Item Number / Title [DODIC]: E03710 / CTG, .338cal Norma Magnum, AP, XM1162 f/Rifle | | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | | | | | | | MDAP/MAIS Code: | | | | | | | | |
| Resource Summary | | | | Prior Years | | FY 2020 | | FY 2021 | | FY 2022 Base | | FY 2022 OCO | | FY 2022 Total | | | | |
| Procurement Quantity (<i>Units in Each</i>) | | | | - | | - | | - | | - | | - | | - | | | | |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | | | | - | | - | | - | | 3.818 | | - | | 3.818 | | | | |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | | | | - | | - | | - | | - | | - | | - | | | | |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | | | | - | | - | | - | | 3.818 | | - | | 3.818 | | | | |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | | | | - | | - | | - | | - | | - | | - | | | | |
| Total Obligation Authority (<i>\$ in Millions</i>) | | | | - | | - | | - | | 3.818 | | - | | 3.818 | | | | |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | | | | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | | | | - | | - | | - | | - | | - | | - | | - | | |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | | | | - | | - | | - | | - | | - | | - | | - | | |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. | | | | | | | | | | | | | | | | | | |
| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | - | - | - | - | - | - | - | - | - | 11.94 | 311,111 | 3.715 | - | - | - | 11.94 | 311,111 | 3.715 |
| <i>Subtotal: Recurring Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 3.715 | - | - | - | - | - | 3.715 |
| <i>Subtotal: Hardware Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 3.715 | - | - | - | - | - | 3.715 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.097 | - | - | - | - | - | 0.097 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.097 | - | - | - | - | - | 0.097 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | - | - | - | - | - | - | 0.006 | - | - | - | - | - | 0.006 |
| <i>Subtotal: Support - Quality Assurance Cost</i> | - | - | - | - | - | - | - | - | - | - | - | 0.006 | - | - | - | - | - | 0.006 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 3.818 | - | - | - | - | - | 3.818 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 50 | P-1 Line Item Number / Title: 2624EA0055 / Items Less Than \$5 Million (AMMO) | Item Number / Title [DODIC]: E03715 / CTG, .30cal Norma Magnum, XM1163 f/Rifle |

| | | | | | | | |
|---|--|--------------------|----------------|------------------------|---------------------|--------------------|----------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | - | - | - | 4.854 | - | 4.854 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | - | - | - | 4.854 | - | 4.854 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | - | - | - | 4.854 | - | 4.854 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND ^(†) | - | - | - | - | - | - | - | - | - | 3.80 | 1,241,754 | 4.719 | - | - | - | 3.80 | 1,241,754 | 4.719 |
| Subtotal: Recurring Cost | - | - | - | - | - | - | - | - | - | - | - | 4.719 | - | - | - | - | - | 4.719 |
| Subtotal: Hardware Cost | - | - | - | - | - | - | - | - | - | - | - | 4.719 | - | - | - | - | - | 4.719 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | - | - | - | - | - | - | - | - | - | 0.129 | - | - | - | - | - | 0.129 |
| Subtotal: Support - Production Engineering Cost | - | - | - | - | - | - | - | - | - | - | - | 0.129 | - | - | - | - | - | 0.129 |
| Support - Quality Assurance Cost | | | | | | | | | | | | | | | | | | |
| Quality Assurance | - | - | - | - | - | - | - | - | - | - | - | 0.006 | - | - | - | - | - | 0.006 |
| Subtotal: Support - Quality Assurance Cost | - | - | - | - | - | - | - | - | - | - | - | 0.006 | - | - | - | - | - | 0.006 |
| Gross/Weapon System Cost | - | - | - | - | - | - | - | - | - | - | - | 4.854 | - | - | - | - | - | 4.854 |

(†) indicates the presence of a P-5a

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| Exhibit P-5a, Procurement History and Planning: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
|--|-------------|------|---|--------------------------------------|--------------------------|---------------|---|----------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 50 | | | P-1 Line Item Number / Title: 2624EA0055 / Items Less Than \$5 Million (AMMO) | | | | Item Number / Title [DODIC]: E03715 / CTG, .30cal Norma Magnum, XM1163 f/Rifle | | | | | |
| Cost Elements | O C O | FY | Contractor and Location | Method/Type or Funding Vehicle | Location of PCO | Award Date | Date of First Delivery | Qty <i>(Each)</i> | Unit Cost <i>(\$)</i> | Specs Avail Now? | Date Revision Available | RFP Issue Date |
| COMPLETE ROUND | | 2022 | TO BE SELECTED / TBS01 | C / FFP | PICATINNY ARSENAL, NJ | Mar 2022 | Oct 2022 | 1,241,754 | 3.80 | Y | | |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 50 | P-1 Line Item Number / Title: 2624EA0055 / Items Less Than \$5 Million (AMMO) | Item Number / Title [DODIC]: E92100 / CTG, 12 Gauge Breaching Round, M1030 [AA54] |

| ID Code (A=Service Ready, B=Not Service Ready) : A | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|----------|------------------------|--------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (<i>Units in Each</i>) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | | 10.242 | - | 0.822 | 0.602 | - | 0.602 |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | | 10.242 | - | 0.822 | 0.602 | - | 0.602 |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | | 10.242 | - | 0.822 | 0.602 | - | 0.602 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (<i>\$ in Millions</i>) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost | | | | | | | | | | | | | | | | | | |
| Recurring Cost | | | | | | | | | | | | | | | | | | |
| COMPLETE ROUND | 12.67 | 795,355 | 10.078 | - | - | - | 2.75 | 278,065 | 0.765 | 2.78 | 200,840 | 0.558 | - | - | - | 2.78 | 200,840 | 0.558 |
| <i>Subtotal: Recurring Cost</i> | - | - | 10.079 | - | - | - | - | - | 0.765 | - | - | 0.558 | - | - | - | - | - | 0.558 |
| <i>Subtotal: Hardware Cost</i> | - | - | 10.079 | - | - | - | - | - | 0.765 | - | - | 0.558 | - | - | - | - | - | 0.558 |
| Support - Production Engineering Cost | | | | | | | | | | | | | | | | | | |
| Production Engineering | - | - | 0.163 | - | - | - | - | - | 0.057 | - | - | 0.044 | - | - | - | - | - | 0.044 |
| <i>Subtotal: Support - Production Engineering Cost</i> | - | - | 0.163 | - | - | - | - | - | 0.057 | - | - | 0.044 | - | - | - | - | - | 0.044 |
| Gross/Weapon System Cost | - | - | 10.242 | - | - | - | - | - | 0.822 | - | - | 0.602 | - | - | - | - | - | 0.602 |

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 50 **P-1 Line Item Number / Title:** 2624EA0055 / Items Less Than \$5 Million (AMMO) **Aggregated Items Title:** Various

| Item Number / Title [DODIC] | ID CD | MDAP/MAIS Code | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | | | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Various Items | | | | | | | | | | | | | | | | | | | | |
| E99101 / Special Training Ammo: | | | - | - | 34.362 | - | - | 1.091 | - | - | 0.619 | - | - | 0.474 | - | - | - | - | - | 0.474 |
| E99222 / Foreign Weapons Training Ammunition | | | - | - | 1.631 | - | - | 0.497 | - | - | 0.499 | - | - | 0.324 | - | - | - | - | - | 0.324 |
| EA0600 / AMMUNITION PROGRAM SUPPORT | | | - | - | 71.123 | - | - | 4.869 | - | - | 4.895 | - | - | 4.703 | - | - | - | - | - | 4.703 |
| EA0960 / USAMTU FT BENNING | | | - | - | 40.205 | - | - | 1.756 | - | - | 1.287 | - | - | 1.220 | - | - | - | - | - | 1.220 |
| Subtotal: Various Items | | | - | - | 147.321 | - | - | 8.213 | - | - | 7.300 | - | - | 6.721 | - | - | - | - | - | 6.721 |
| Total | | | - | - | 147.321 | - | - | 8.213 | - | - | 7.300 | - | - | 6.721 | - | - | - | - | - | 6.721 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous **P-1 Line Item Number / Title:** 4370EA0575 / Ammunition Peculiar Equipment

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|---------------|---------------|---------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 367.575 | 10.044 | 12.338 | 12.290 | - | 12.290 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 367.575 | 10.044 | 12.338 | 12.290 | - | 12.290 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 367.575 | 10.044 | 12.338 | 12.290 | - | 12.290 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Ammunition Peculiar Equipment (APE) program provides support for ammunition operations including surveillance, demilitarization (demil), maintenance, renovation, modification, packaging, and preservation per Army Regulation 700-20, Ammunition Peculiar Equipment. APE is developed, acquired, and supervised through the Single Manager for Conventional Ammunition per Department of Defense Instruction 5160.68. APE provides equipment items specifically designed, fabricated, procured, tested, and adopted for use in worldwide United States (US) military ammunition depot operations on conventional ammunition. APE maintains a central source of standard, modern, safe, efficient, reliable, and environmentally acceptable equipment for ammunition operations. This equipment is different from production line plant equipment as it disassembles ammunition items into components, sorts and removes hazardous materials to reduce human interaction and improves personnel safety. Maintenance APE is also designed to perform cleaning and renovation functions on ammunition subjected to deterioration effects (rust, corrosion, weathering, etc) during its storage life. APE supporting surveillance is key to stockpile sampling and functional testing of the items to assure readiness for combat or training. Demilitarization APE is similar to maintenance APE, but must go further in disassembly to destroy hazardous components, sort and reclaim salvageable parts or metals.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous **P-1 Line Item Number / Title:**
 4370EA0575 / Ammunition Peculiar Equipment

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | EA0575 / Ammunition Peculiar Equipment | | | | - / 367.575 | - / 10.044 | - / 12.338 | - / 12.290 | - / - | - / 12.290 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 367.575 | - / 10.044 | - / 12.338 | - / 12.290 | - / - | - / 12.290 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Base procurement dollars in the amount of \$12.290 million will be used to procure and repair Ammunition Peculiar Equipment to assist in the maintenance, surveillance and demilitarization missions at depots around the world. APE is required to support the Ammunition Stockpile Reliability Program, Surveillance Program, equipment for worldwide maintenance and demilitarization, prepositioned ships, and Government-Owned, Contractor-Operated plants as Government Furnished Equipment. The APE assets maintain and verify the quality of the ammunition stockpile; thereby saving the cost of purchasing new replacement ammunition. APE proficiently executes the ammunition demilitarization mission to safely perform disassembly, destruction, or removal processes with an emphasis on recycling, re-utilization and preserving demilitarization assets in a manner that supports ammunition sustainment, safety and environmental compliance.

The program provides global support to the US Military Services for ammunition sustainment and demilitarization operations, including deployment, operations and support of the Ammunition Supply Point (ASP) suites. The ASP suites include APE, which will increase the efficiency of the receipt, inspection and issuance of ammunition to the warfighter. Deployment of APE to support ASP suites will increase efficiencies for ammunition sustainment operations by reducing logistics burdens and related risks. This allows for better primary mission readiness, enhanced hazardous operations safety and more efficient operating conditions requiring less ammunition retrograde/demilitarization by providing capability to preserve ammunition assets.

The APE program supports multiple demilitarization processes across the Army's organic base; one of the most widely utilized capabilities is the APE 1236 incinerator and support equipment. The program performed a downtime and efficiency study of this equipment and began implementing initial equipment upgrades and modifications in accordance with a priority roadmap. These modifications will continue throughout and beyond FY 2022. FY 2022 dollars will be used to procure, install, integrate and test upgrades at tier 1 and 2 organic facilities. The program will also provide updated specific facility documentations including: technical drawing packages, standard operating procedures, hazard analyses and equipment maintenance responsibilities and procedures.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 50 | | P-1 Line Item Number / Title: 4370EA0575 / Ammunition Peculiar Equipment |
| | | Item Number / Title [DODIC]: EA0575 / Ammunition Peculiar Equipment |

| | | | | | | | | | |
|---|--|--|--|------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | | | |
| Resource Summary | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | | 367.575 | 10.044 | 12.338 | 12.290 | - | 12.290 |
| Less PY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | | 367.575 | 10.044 | 12.338 | 12.290 | - | 12.290 |
| Plus CY Advance Procurement (\$ in Millions) | | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | | 367.575 | 10.044 | 12.338 | 12.290 | - | 12.290 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | | |
| Initial Spares (\$ in Millions) | | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Support - Contractor Logistics Support (CLS) Cost | | | | | | | | | | | | | | | | | | |
| Oversight | - | - | 6.479 | - | - | 0.500 | - | - | 0.500 | - | - | 0.500 | - | - | - | - | - | 0.500 |
| <i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i> | - | - | 6.479 | - | - | 0.500 | - | - | 0.500 | - | - | 0.500 | - | - | - | - | - | 0.500 |
| Support - Fielding Cost | | | | | | | | | | | | | | | | | | |
| Fielding | - | - | 18.532 | - | - | 0.200 | - | - | 0.276 | - | - | 0.276 | - | - | - | - | - | 0.276 |
| <i>Subtotal: Support - Fielding Cost</i> | - | - | 18.532 | - | - | 0.200 | - | - | 0.276 | - | - | 0.276 | - | - | - | - | - | 0.276 |
| Support - Initial Spares and Repair Parts Cost | | | | | | | | | | | | | | | | | | |
| Initial Spares and Repair Parts | - | - | 48.830 | - | - | 3.000 | - | - | 1.750 | - | - | 1.750 | - | - | - | - | - | 1.750 |
| <i>Subtotal: Support - Initial Spares and Repair Parts Cost</i> | - | - | 48.830 | - | - | 3.000 | - | - | 1.750 | - | - | 1.750 | - | - | - | - | - | 1.750 |
| Support - Peculiar Support Equipment Cost | | | | | | | | | | | | | | | | | | |
| Test and Measurement Equipment | - | - | 40.166 | - | - | 3.500 | - | - | 4.737 | - | - | 4.389 | - | - | - | - | - | 4.389 |
| <i>Subtotal: Support - Peculiar Support Equipment Cost</i> | - | - | 40.166 | - | - | 3.500 | - | - | 4.737 | - | - | 4.389 | - | - | - | - | - | 4.389 |
| Support - Product Improvement Cost | | | | | | | | | | | | | | | | | | |
| Safety | - | - | 3.051 | - | - | 0.644 | - | - | 2.550 | - | - | 2.550 | - | - | - | - | - | 2.550 |
| <i>Subtotal: Support - Product Improvement Cost</i> | - | - | 3.051 | - | - | 0.644 | - | - | 2.550 | - | - | 2.550 | - | - | - | - | - | 2.550 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 50 | P-1 Line Item Number / Title: 4370EA0575 / Ammunition Peculiar Equipment | Item Number / Title [DODIC]: EA0575 / Ammunition Peculiar Equipment |
| ID Code (A=Service Ready, B=Not Service Ready) : | | MDAP/MAIS Code: |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Support - Recapitalization Cost | | | | | | | | | | | | | | | | | | |
| Recapitalization | - | - | 225.889 | - | - | 2.000 | - | - | 2.250 | - | - | 2.550 | - | - | - | - | - | 2.550 |
| <i>Subtotal: Support - Recapitalization Cost</i> | - | - | 225.889 | - | - | 2.000 | - | - | 2.250 | - | - | 2.550 | - | - | - | - | - | 2.550 |
| Support - Staging and Transportation Cost | | | | | | | | | | | | | | | | | | |
| Staging and Transportation | - | - | 24.628 | - | - | 0.200 | - | - | 0.275 | - | - | 0.275 | - | - | - | - | - | 0.275 |
| <i>Subtotal: Support - Staging and Transportation Cost</i> | - | - | 24.628 | - | - | 0.200 | - | - | 0.275 | - | - | 0.275 | - | - | - | - | - | 0.275 |
| Gross/Weapon System Cost | - | - | 367.575 | - | - | 10.044 | - | - | 12.338 | - | - | 12.290 | - | - | - | - | - | 12.290 |

Remarks:

In FY 2022, funding in the amount of \$0.225 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|---|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous | P-1 Line Item Number / Title: 4758EA0550 / First Destination Transportation (AMMO) |
|---|--|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|----------------|---------------|---------------|--------------|-------------|---------------|----------|----------|----------|----------|-------------|----------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 992.373 | 18.492 | 15.908 | 4.331 | - | 4.331 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 992.373 | 18.492 | 15.908 | 4.331 | - | 4.331 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 992.373 | 18.492 | 15.908 | 4.331 | - | 4.331 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Transportation funds are required to support the distribution of Army ammunition end items and components (Interim Transportation). Distribution originates from and to Continental United States (CONUS) and Outside Continental United States (OCONUS) manufacturing plants/contractors, and/or assembly points, e.g., Army Ammunition Plants (AAPs), Arsenals; Defense Contract Management Centers to include Off Shore Procurement Contractors shipping under Free On Board shipping origin terms. Requirements are either destined for CONUS depots for acceptance into the Army Supply System, to CONUS Customers, to CONUS Arsenals, and to ports of embarkation in support of the Call Forward Program, i.e., Training, War Reserves or the Overseas Contingency Operations (OCO).

Justification:

FY 2022 base funding of \$4.331 million is required to support Army ammunition end item and component distribution from the point of manufacture to the point of initial receipt into the Army's supply system in accordance with the requirements outlined in DoD FMR 7000.14-R

Funding promotes readiness and is necessary to support planned Army Ammunition procurements to avoid failing to meet FOB Origin delivery terms across ammunition contracts, contract cost growth due to increased storage penalties exceeding shipment costs and production shutdowns at contractor facilities due to shipment bottlenecks.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|---|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous | P-1 Line Item Number / Title: 9615EA8500 / Closeout Liabilities |
|---|---|

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|--------------|---------|--------------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 0.597 | - | 0.099 | 0.099 | - | 0.099 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 0.597 | - | 0.099 | 0.099 | - | 0.099 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 0.597 | - | 0.099 | 0.099 | - | 0.099 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Funding will pay contract termination cost and operational losses/claims at ammunition plants. This funding ensures unanticipated future contract liabilities can be satisfied in accordance with Army Contract Review Board (ACRB) approved actions.

Justification:

FY 2022 base procurement dollars of \$0.099 million are required to pay contingent liabilities such as contract termination cost, e.g., unfunded pension liabilities, severance pay, and other claims approved by the ACRB.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

| | |
|--|---|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous | P-1 Line Item Number / Title: 9900EA0004 / CLOSED ACCOUNT ADJUSTMENTS |
|--|---|

| | | |
|---|--|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|---|--|-------------------------------------|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|---------------|--------------|---------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 14.052 | 0.002 | - | - | - | - | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 14.052 | 0.002 | - | - | - | - | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 14.052 | 0.002 | - | - | - | - | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Thousands</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

Closed account adjustment under Procurement of Ammunition, Army (PAA).

Justification:

The procurement dollars supports payment of closed account adjustment per 31 U.S.C. 1554.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support

P-1 Line Item Number / Title:
 0572EP1000 / Industrial Facilities

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|------------------|----------------|----------------|----------------|-------------|----------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 8,887.398 | 474.511 | 684.224 | 538.120 | - | 538.120 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 8,887.398 | 474.511 | 684.224 | 538.120 | - | 538.120 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 8,887.398 | 474.511 | 684.224 | 538.120 | - | 538.120 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

This budget line provides funding for modernization, construction and rehabilitation efforts at Government-Owned, Contractor-Operated Army Ammunition Plants (AAPs) and commercial facilities as well as preservation of inactive production lines at the AAPs. The AAPs were constructed during World War II; the facilities have served and supported numerous theater operations, providing the warfighter with expansive ammunition requirements. Due to their age, the facilities and infrastructure experience frequent failures, and the production lines operate with outdated technology processes and equipment. The Industrial Facilities (IF) budget line consists of three separate programs, Provision of Industrial Facilities (PIF), Layaway of Industrial Facilities (LIF) and Maintenance of Inactive Facilities (MIF). Its mission includes replacement of obsolete or worn production equipment, correction of deficiencies and upgrades to infrastructures. This line represents an enduring, exhaustive mission to modernize and equip the Army's Ammunition Plants and provide decisive advantage of the warfighter's conventional ammunition, explosives and propellant requirements, without delay and at optimal cost. Project Director (PD) Joint Services, under Joint Program Executive Office Armaments and Ammunition, manages the Industrial Facilities budget line.

The Provision of Industrial Facilities program (PIF), SSN EP1200, establishes, augments and improves ammunition production capabilities through strategic modernization efforts, expands production capacity, maintains environmental compliance, and improves quality of work environment and safety at ammunition plants. It also addresses emergency modernization and associated construction to mitigate production disruptions at various sites.

This budget line provides funding for preservation, storage and movement of real property facilities and equipment required for anticipated future requirements at active and inactive Army ammunition installations including the Quad City Cartridge Case Facility (QCCCF) and Government-Owned, Government-Operated AAPs, also known as Layaway of Industrial Facilities (LIF) activities, SSN EP2000. Funding will also support consolidation of layaway production equipment and redistribution of production equipment that cannot be stored on-site. Layaway efforts also include retaining critical operational and technical knowledge of production equipment, such as engineering designs, process data and control manufacturing practices. Layaway program also includes safety-related decontamination, disposal and demolition of production equipment and facilities, and environmental site assessments.

Procurement funds also support the Maintenance of Inactive Facilities (MIF), SSN EP1500, to include utilities, buildings, plant equipment, special tooling, and special test equipment being retained to support future production requirements at GOCO and GOGO AAPs and QCCCF. Additional efforts include support of associated MIF costs such as grounds maintenance, fire protection, equipment security, and administrative support.

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| | | |
|---|--|--|
| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities |

| | | |
|--|---|--|
| ID Code (A=Service Ready, B=Not Service Ready): | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|--|---|--|

Line Item MDAP/MAIS Code: N/A

| Project Schedule | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|------------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Exhibit Type | Project | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) |
| (Uncategorized) | | - | 474.511 | 684.224 | 538.120 | - | 538.120 |
| | Holston Army Ammunition Plant | - | 269.310 | 290.400 | 215.000 | - | 215.000 |
| P-25 | 5201000 - Plant Operations | - | 8.098 | - | - | - | - |
| P-25 | 5XX3214 - Treatment Technology Alternatives to Open Burning | - | - | 36.000 | 85.000 | - | 85.000 |
| P-25 | 5203579 - Landfill Expansion | - | 19.226 | - | - | - | - |
| P-25 | 5203668 - Sewer Line Replacement, Ph 2 | - | 18.000 | - | - | - | - |
| P-25 | 5203783 - Analytical Lab | - | 67.000 | - | - | - | - |
| P-25 | 5205055 - Modernized Melt-Cast Facility, Construct | - | 34.700 | - | - | - | - |
| P-25 | 5225096 - Ansol Treatment | - | - | - | 75.000 | - | 75.000 |
| P-25 | 5225097 - Combined Wash/Filter Facility | - | - | - | 50.000 | - | 50.000 |
| P-25 | 5205098 - RDX Wastewater Point Source Treatment | - | 17.470 | - | - | - | - |
| P-25 | 5205100 - WAARP Facility Train II, Construct | - | 41.901 | - | - | - | - |
| P-25 | 5205101 - WAARP Tank Farms, B-3, Construct | - | 56.689 | - | - | - | - |
| P-25 | 5215110 - Area B Third Acid Train, Design/Construct | - | - | 70.000 | - | - | - |
| P-25 | 5215116 - New Kettle Drying Facility | - | - | 40.000 | - | - | - |
| P-25 | 5215151 - Nitration Facility, Design/Construct | - | - | 92.000 | - | - | - |
| P-25 | 5205154 - Critical Spares | - | 6.226 | - | - | - | - |
| P-25 | 5XX5168 - ANSol Tank Farms, (B-5, B-11), Construct | - | - | 30.000 | - | - | - |
| P-25 | 5215176 - Building N-8, Repair/Upgrades | - | - | 16.900 | - | - | - |
| P-25 | 5215177 - Barricade Modernization Upgrades | - | - | 3.500 | - | - | - |
| P-25 | 5215178 - TATB Production Facility, Mod Upgrades | - | - | 2.000 | - | - | - |
| P-25 | 5225283 - G Building River Water Usage Reduction | - | - | - | 5.000 | - | 5.000 |
| | Iowa Army Ammunition Plant | - | 21.893 | 142.760 | 14.100 | - | 14.100 |
| P-25 | 5203410 - Replace Main Sewage | - | 8.790 | - | - | - | - |
| P-25 | 5203745 - Roadway Mod Improvements | - | 6.300 | - | - | - | - |
| P-25 | 5XX5030 - IAAAP Footprint Reduction - Long Range Precision Artillery Production Facility | - | - | 135.600 | 2.500 | - | 2.500 |
| P-25 | 5215121 - 40MM High Velocity Grenade Defuze & Refuze | - | - | 1.760 | - | - | - |
| P-25 | 5205122 - Automate M112 Bagging Operations | - | 1.710 | - | - | - | - |
| P-25 | 5215125 - Design & Construct New Metrology Lab | - | - | 5.400 | - | - | - |
| P-25 | 5205304 - Improve 40mm Grenade & Spitback Pressing | - | 5.093 | - | - | - | - |
| P-25 | 5225126 - Building 1 - 11 Inert Storage | - | - | - | 6.400 | - | 6.400 |
| P-25 | 5225240 - Primary Water Pump Station | - | - | - | 2.200 | - | 2.200 |
| P-25 | 5225241 - Line 3A Sustainment | - | - | - | 3.000 | - | 3.000 |
| | Lake City Army Ammunition Plant | - | 40.000 | 78.140 | 69.000 | - | 69.000 |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support **P-1 Line Item Number / Title:**
 0572EP1000 / Industrial Facilities

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Project Schedule | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Exhibit Type | Project | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) |
| P-25 | 5XX3356 - Small Caliber Modernization, Next Generation Squad Weapon Ammunition facility | - | 40.000 | 40.000 | 30.000 | - | 30.000 |
| P-25 | 5223359 - Next Generation Squad Weapon Ammunition facility, Infrastructure Mod | - | - | - | 25.000 | - | 25.000 |
| P-25 | 5213459 - Primer Assembly Wing, Building 35, HVAC (Construct) | - | - | 1.100 | - | - | - |
| P-25 | 5213652 - HVAC Modifications, Loading And Exhaust (Construct) | - | - | 22.340 | - | - | - |
| P-25 | 5213792 - IWTP Lagoon Liners & Filter Press | - | - | 14.000 | - | - | - |
| P-25 | 5215025 - Utility Systems Protection | - | - | 0.700 | - | - | - |
| P-25 | 5225231 - Modernize B90 Series Neutralization Process & Tanks | - | - | - | 14.000 | - | 14.000 |
| | Radford Army Ammunition Plant | - | 35.765 | - | 113.630 | - | 113.630 |
| P-25 | 5203120 - NAC/SAC Process Improvements | - | 9.900 | - | - | - | - |
| P-25 | 5223140 - Chemical Grind Facility | - | - | - | 63.130 | - | 63.130 |
| P-25 | 5203567 - Barricade Replacement, Ph 1 | - | 9.641 | - | - | - | - |
| P-25 | 5XX3753 - Workplace Safety Upgrades | - | 5.990 | - | 9.000 | - | 9.000 |
| P-25 | 5XX5141 - Solventless/Rocket Area, Prod Operations | - | 4.334 | - | 5.000 | - | 5.000 |
| P-25 | 5XX5145 - Solvent Propellant Facility Sustainment, Ph 2 | - | 5.900 | - | 8.300 | - | 8.300 |
| P-25 | 5225090 - Alternate Nitrate Ester Facility (NG-3) | - | - | - | 28.200 | - | 28.200 |
| | Quad City Cartridge Case Facility | - | 2.000 | - | - | - | - |
| P-25 | 5205139 - Infrastructure & Safety Efforts | - | 2.000 | - | - | - | - |
| | Scranton Army Ammunition Plant | - | 3.590 | - | 30.200 | - | 30.200 |
| P-25 | 5223419 - Bliss III Press & Furnace Upgrades | - | - | - | 2.750 | - | 2.750 |
| P-25 | 5223719 - Saw Cell Automation & Modernization | - | - | - | 4.000 | - | 4.000 |
| P-25 | 5XX5150 - Infrastructure & Equipment Efforts | - | 3.590 | - | 1.950 | - | 1.950 |
| P-25 | 5225180 - Artillery Prod Line Mod | - | - | - | 17.000 | - | 17.000 |
| P-25 | 5225181 - Steam & Water Piping Mod Upgrades | - | - | - | 0.500 | - | 0.500 |
| P-25 | 5225182 - A2 Forge Shop Shot Blast Replacement | - | - | - | 1.000 | - | 1.000 |
| P-25 | 5225183 - M795 Pangborn Shot Blast Replacement | - | - | - | 3.000 | - | 3.000 |
| | Various Army Ammunition Plants | - | 95.385 | 157.624 | 80.885 | - | 80.885 |
| P-25 | 5XX0000 - Planning & Design in Support of Provision of Industrial Facilities | - | 95.385 | 65.624 | 67.985 | - | 67.985 |
| P-25 | 5225405 - Quality of Work Environment Upgrades | - | - | - | 4.000 | - | 4.000 |
| P-25 | 5225406 - Major Maintenance at GOCO AAPs | - | - | - | 8.900 | - | 8.900 |
| P-25 | 5215407 - Lightweight Ammunition Manufacturing | - | - | 8.000 | - | - | - |
| P-25 | 5215408 - Safety and Environmental Upgrades | - | - | 84.000 | - | - | - |
| | Yuma Proving Ground / Aberdeen Test Center | - | - | - | 0.161 | - | 0.161 |
| P-25 | 5225060 - Replace Test Instrumentation in Production Acceptance Testing (Ammunition) | - | - | - | 0.161 | - | 0.161 |
| | Maintenance of Inactive Facilities | - | 1.355 | 5.195 | 5.109 | - | 5.109 |

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity:
2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support

P-1 Line Item Number / Title:
0572EP1000 / Industrial Facilities

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Project Schedule | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|---------------------------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Exhibit Type | Project | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) | Total Cost (\$ M) |
| P-25 | 5XX4073 - Maintenance of Inactive Facilities | - | 1.355 | 5.195 | 5.109 | - | 5.109 |
| | Layaway Of Industrial Facilities | - | 5.213 | 10.105 | 10.035 | - | 10.035 |
| P-25 | 5XX8000 - Layaway Of Industrial Facilities | - | 5.213 | 10.105 | 10.035 | - | 10.035 |
| Total Gross/Weapon System Cost | | - | 474.511 | 684.224 | 538.120 | - | 538.120 |

*For the P-17 and P-25, the Project column displays a three-level indentation: Project Category (e.g., Environmental), followed by the Facility, followed by the Project Name. Exhibits with no Project Category are included under the "Uncategorized" category. For the P-26, the Project column displays a two-level indentation: Project Type (e.g., Inactive Plants, Inactive Lines at Contractor Plants and Inactive Lines at Active Plants), followed by the Facility. Note also that although all P-17, P-25 and P-26 projects are shown in the project schedule, not all projects will have a corresponding exhibit. A P-17 or P-25 exhibit is only included if data beyond the Project Number, Project Title and Cost are included (for example: for the P-17, Description, Manufacturer, etc.; for the P-25, Narrative Explanation, Cost Elements, Principle Milestones, etc.). A P-26 exhibit is only included if data beyond Project Type and Total Cost are included (for example, Description, Contractor, Maintenance/Recurring/Environmental/Other costs, etc.).

Justification:
 FY 2022 procurement dollars in the amount of \$538.120 million will support modernization projects to include modernization upgrades to the small caliber, Next Generation Squad Weapon ammunition production facility at Lake City Army Ammunition Plant (AAP) and construction of an Ammonium Nitrate Solution (ANSol) facility at Holston AAP. Funds also support modernization projects to expand the annual production capacity of Research Development Explosive (RDX) at Holston AAP from approximately eight million pounds to fifteen million. Additional efforts include designs for new nitrate ester manufacturing facilities at Radford AAP. Funds also support infrastructure upgrades at Scranton AAP, and work environment projects, improvements for personnel safety and health, and efforts to maintain environmental compliance at the ammunition plants. Funds will provide engineering support of industrial facilities, pre-design efforts for future-year modernization projects.

FY 2022 funding also supports the protection and preservation of industrial facilities at active and inactive Army ammunition installations and equipment that is no longer required for current production but must be retained for future production needs. Funds support the decontamination and demolition of excess production equipment and facilities buildings at Iowa, Lake City, and Radford Army Ammunition Plant and Pine Bluff Arsenal.

FY 2022 funding supports the care and maintenance of layaway equipment and facilities at active and inactive ammunition installations.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Plant Operations **Project Number:** 5201000 **Project Category:**

End Item Supported Model: Research Develop Expl(RDX),High Melt Expl(HMX),Insensitive Mun Expl(IMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|--------------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Dec 2020 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | 8.098 | - | - | - | - | | | | | | | |
| Total Project Cost | 8.098 | - | - | - | - | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$8.098 million support plant operations and settlement of request for equitable adjustments at Holston Army Ammunition Plant (AAP). This project ensures continuity of explosives manufacturing at Holston AAP.

 Effort was an urgent requirement of the FY20 program.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Treatment Technology Alternatives to Open Burning **Project Number:** 5XX3214 **Project Category:**

End Item Supported Model: Research Develop Expl(RDX),High Melt Expl(HMX),Insensitive Mun Expl(IMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | 36.000 | 29.300 | - | 29.300 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Apr 2023 Initial/Final Project Award: Feb 2021 / Sep 2022 Construction Complete: Feb 2026 Equipment Installation Complete: Feb 2026 Prove Out Begins: Mar 2026 Prove Out Complete: Oct 2026 | | | | | | |
| B. Equipment Cost | - | - | 47.700 | - | 47.700 | | | | | | | |
| C. Equipment Installation Cost | - | - | 4.500 | - | 4.500 | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | 3.500 | - | 3.500 | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | 36.000 | 85.000 | - | 85.000 | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$85.000 million supports completion of design and construction of an explosives decomposition chamber facility at Holston Army Ammunition Plant (AAP). The new facility will dispose of explosive waste generated during the explosives manufacturing process. These materials are currently open burned at the installation. Holston AAP is required to reduce or eliminate open burning of Material Potentially Presenting an Explosive Hazard (MPPEH) in compliance with DoD Explosives Safety Board (DDESB) and Tennessee Department of Environment and Conservation (TDEC) requirements. This effort supports the modernization initiative to expand annual production capacity of RDX at Holston AAP from eight million pounds to fifteen million pounds.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Landfill Expansion **Project Number:** 5203579 **Project Category:**

End Item Supported Model: Research Develop Expl(RDX),High Melt Expl(HMX),Insensitive Mun Expl(IMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|-------------------------|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | 19.226 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Dec 2020 Construction Complete: May 2022 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | Related Projects | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | | |
| Total Project Cost | 19.226 | - | - | - | - | | | | | | | | |

Narrative Explanation:
 Procurement dollars in the amount of \$19.226 million supports this facilities and maintenance effort to expand existing Holston Army Ammunition Plant (AAP) landfill. The existing Class II landfill will reach capacity within thirty-six months. This effort will create more waste disposal capacity at Holston AAP and support future production operations. The project will include an associated leachate management system. The design phase was initiated in 2017 and funded in FY 2017 and will complete March 2021.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Sewer Line Replacement, Ph 2 **Project Number:** 5203668 **Project Category:**

End Item Supported Model: Research Development Explosives (RDX), High Melt Explosives (HMX), IMX **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | 18.000 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2018 / Jul 2021 Construction Complete: Jul 2023 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 18.000 | - | - | - | - | | | | | | | |
| Related Projects | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$18.000 million supports second phase to repair and replace industrial and sanitary sewer lines at Holston Army Ammunition Plant. The existing sewer system is aging and suffers significant leaks. Rain water infiltration has increased flow to the waste water treatment facility and impacted its ability to treat Research Development Explosives (RDX). This effort will ensure Holston AAP remains in compliance with Environmental Protection Agency (EPA) and other environmental regulations.

Effort was executed in accordance with the FY20 NDAA.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Analytical Lab **Project Number:** 5203783 **Project Category:**

End Item Supported Model: Research Develop Expl(RDX),High Melt Expl(HMX),Insensitive Mun Expl(IMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | 67.000 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Mar 2021 Construction Complete: Aug 2023 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 67.000 | - | - | - | - | | | | | | | |
| Related Projects | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$67.000 million supports the construction of an analytical lab at Holston Army Ammunition Plant (AAP). The facility will replace the current lab facility at Holston AAP as well as provide expanded laboratory capabilities. The analytical lab will be used for acceptance testing of all explosives produced at the facility. The laboratory will be constructed to allow larger load limits within the lab facilities which will improve the throughput. This effort supports the modernization initiative to expand annual production capacity of Research Development Explosives (RDX) at Holston AAP from eight million pounds to fifteen million pounds.

Effort was executed in accordance with the FY20 NDAA.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities |
| Project Title: Modernized Melt-Cast Facility, Construct | | Project Number: 5205055 Project Category: |
| End Item Supported Model: Insensitive Munitions (IM) Explosives, TNT, Research Development Explosives (RDX) | | Annual Capacity Before / After (1-8-5): / |

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------|----------------|-------------------------|--------------------|----------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-----------------------------|--|--|-------------------------|--|--|--------------------------|--|--|----------|--|--|------------------------|--|--|---------------------|--|--|------------------------------|--|--|----------|--|--|------------------------|--|--|----------|--|--|----------------------------------|--|--|----------|--|--|-------------------|--|--|----------|--|--|---------------------|--|--|----------|--|--|
| A. Construction Cost | 34.700 | - | - | - | - | <table border="0"> <tr> <td colspan="3">Principal Milestones</td> <td colspan="3">Month & Year</td> </tr> <tr> <td colspan="3">Concept Design Complete:</td> <td colspan="3">Feb 2020</td> </tr> <tr> <td colspan="3">Final Design Complete:</td> <td colspan="3">Jul 2019 / Mar 2021</td> </tr> <tr> <td colspan="3">Initial/Final Project Award:</td> <td colspan="3">Mar 2023</td> </tr> <tr> <td colspan="3">Construction Complete:</td> <td colspan="3">Mar 2023</td> </tr> <tr> <td colspan="3">Equipment Installation Complete:</td> <td colspan="3">Mar 2023</td> </tr> <tr> <td colspan="3">Prove Out Begins:</td> <td colspan="3">Mar 2023</td> </tr> <tr> <td colspan="3">Prove Out Complete:</td> <td colspan="3">Nov 2023</td> </tr> </table> | | | | | | Principal Milestones | | | Month & Year | | | Concept Design Complete: | | | Feb 2020 | | | Final Design Complete: | | | Jul 2019 / Mar 2021 | | | Initial/Final Project Award: | | | Mar 2023 | | | Construction Complete: | | | Mar 2023 | | | Equipment Installation Complete: | | | Mar 2023 | | | Prove Out Begins: | | | Mar 2023 | | | Prove Out Complete: | | | Nov 2023 | | |
| Principal Milestones | | | Month & Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Concept Design Complete: | | | Feb 2020 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Final Design Complete: | | | Jul 2019 / Mar 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Initial/Final Project Award: | | | Mar 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction Complete: | | | Mar 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment Installation Complete: | | | Mar 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prove Out Begins: | | | Mar 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prove Out Complete: | | | Nov 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Project Cost | 34.700 | - | - | - | - | Related Projects | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Narrative Explanation:
 Procurement dollars in the amount of \$34.700 million supports construction of a new melt-cast facility at Holston Army Ammunition Plant (AAP). Holston AAP is currently implementing an Insensitive Munitions Explosives (IMX) modernization strategy to achieve an annual IMX capacity of eight million pounds. The expanded production capacity will require additional, modernized casting capacity. The existing facility, Building M-3, cannot meet the future production requirements; additionally it lacks precise temperature control and uniform agitation necessary to attain insensitive properties and consistent quality that IMX class of products require. Holston AAP is the only qualified source of IMX melt-cast explosives in the National Technology and Industrial Base.

An upward adjustment notification was processed and approved.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Ansol Treatment **Project Number:** 5225096 **Project Category:**

End Item Supported Model: Research Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--|--|--|--|-----------------------|--------------|
| A. Construction Cost | - | - | 54.500 | - | 54.500 | Principal Milestones Month & Year Concept Design Complete: Apr 2022 Final Design Complete: Sep 2020 / Sep 2022 Initial/Final Project Award: Aug 2026 Construction Complete: Aug 2026 Equipment Installation Complete: Aug 2026 Prove Out Begins: Oct 2026 Prove Out Complete: Mar 2027 | | | | | | |
| B. Equipment Cost | - | - | 12.750 | - | 12.750 | | | | | | | |
| C. Equipment Installation Cost | - | - | 3.750 | - | 3.750 | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | 3.250 | - | 3.250 | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | 0.750 | - | 0.750 | | | | | | | |
| Total Project Cost | - | - | 75.000 | - | 75.000 | | | | | | | |
| Related Projects | | | | | | | | | | | Project Number | Title |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$75.000 million supports construction of an Ammonium Nitrate Solution (ANSOL) treatment facility at Holston Army Ammunition Plant (AAP). In the past, ANSOL has been transferred as a low-cost feed stock into the ammonium nitrate/fuel oil (ANFO) explosives industry (mining, quarry, civil usages). Existing users of Ammonium Nitrate/Fuel Oil (AN/FO) are not utilizing this material at this time due to composition fluctuations and odor issues. Failure to treat ANSOL will result shutdown of explosives production operations at Holston AAP. This effort supports the modernization initiative to expand annual production capacity of RDX at Holston AAP from eight million pounds to fifteen million pounds.

UNCLASSIFIED

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Combined Wash/Filter Facility **Project Number:** 5225097 **Project Category:**

End Item Supported Model: Research Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | 35.050 | - | 35.050 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Apr 2022 Initial/Final Project Award: Dec 2020 / Mar 2022 Construction Complete: Dec 2023 Equipment Installation Complete: Dec 2023 Prove Out Begins: Jan 2024 Prove Out Complete: Oct 2024 | | | | | | |
| B. Equipment Cost | - | - | 8.000 | - | 8.000 | | | | | | | |
| C. Equipment Installation Cost | - | - | 5.850 | - | 5.850 | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | 1.100 | - | 1.100 | | | | | | | |
| Total Project Cost | - | - | 50.000 | - | 50.000 | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$50.000 million supports construction of a combined Wash and Filtration facility at Holston Army Ammunition Plant. This effort supports the modernization initiative to expand annual production capacity of RDX at Holston AAP from eight million pounds to fifteen million pounds. The existing Wash/Filtration capabilities at building E-6 and E-3 cannot support future RDX production requirements. The new facility will be designed to support a minimum annual production of nine million pounds of washed crude RDX or 2.3 million pounds of High Melt Explosives (HMX).

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: RDX Wastewater Point Source Treatment **Project Number:** 5205098 **Project Category:**

End Item Supported Model: Research Development Explosives (RDX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | |
|--|-----------------------|--------------|----------------------|---------------------|------------------|--|-------------------|--|--|--|
| A. Construction Cost | 12.667 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2020 Construction Complete: Jan 2023 Equipment Installation Complete: Prove Out Begins: Jan 2023 Prove Out Complete: Mar 2023 | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | |
| H. Other Costs | 4.803 | - | - | - | - | | | | | |
| Total Project Cost | 17.470 | - | - | - | - | | | | | |
| Related Projects | | | | | | | | | | |
| | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | |

Narrative Explanation:
 Procurement dollars in the amount of \$17.470 million supports expansion and modernization of the Research Development Explosives (RDX) Wastewater Point Source Treatment facility at Holston Army Ammunition Plant. The Industrial Waste Water Treatment Facility (IWWTF) treats process wastewater from the production of nitramine-based explosive compounds, acetic acid and acetic anhydride, nitric acid production, and insensitive munitions production. Effort includes reactivation and modernization of clarifiers one and two, neutralization basin, and all associated infrastructure improvements, and award of major maintenance activities. Additional treatment capacities are required to support the modernization initiative to expand annual RDX production capacity from eight million pounds to fifteen million pounds.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: WAARP Facility Train II, Construct **Project Number:** 5205100 **Project Category:**

End Item Supported Model: Research Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | 30.816 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2020 Construction Complete: Nov 2022 Equipment Installation Complete: Nov 2022 Prove Out Begins: Dec 2022 Prove Out Complete: Jun 2023 | | | | | | |
| B. Equipment Cost | 11.085 | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 41.901 | - | - | - | - | | | | | | | |
| Related Projects | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$41.901 million supports the construction of a second modernized facility to recover weak acetic acid for RDX/HMX production at Holston Army Ammunition Plant. The existing weak acetic acid recovery (WAARP) facility, Building B-4, cannot meet RDX production requirements. Additional capacities are required to support the modernization initiative to expand annual RDX production capacity from eight million pounds to fifteen million pounds. The new right-sized facility addresses the increase in volume of dilute acetic acid, a byproduct of manufacturing explosives, as well as the requirement for denitrification and solids separation concentration, the byproduct of acetic anhydride manufacturing.

An upward adjustment notification was processed and approved.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: WAARP Tank Farms, B-3, Construct **Project Number:** 5205101 **Project Category:**

End Item Supported Model: Research Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | 38.037 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2020 Construction Complete: Nov 2022 Equipment Installation Complete: Nov 2022 Prove Out Begins: Dec 2022 Prove Out Complete: Jun 2023 | | | | | | |
| B. Equipment Cost | 18.652 | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 56.689 | - | - | - | - | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$56.689 million supports construction of the modernized Weak Acid Area Recovery Process (WAARP) Tank Farm at Holston Army Ammunition Plant. The current tank farm was installed in the 1970's. Tank contents include nitric acid and Ammonium Nitrate Solution (ANSol) and waste acid from explosives manufacturing. The storage capability is critical to maintaining explosives operations. This project will expand and replace the aging chemical storage tanks, transfer equipment and containment dike at the B-3 tank farm. Additional capacities are required to support the modernization initiative to expand annual RDX production capacity from eight million pounds to fifteen million pounds.

An upward adjustment notification was processed and approved

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | | | | | | | | | | |
|---|----------------|----------------|---------------------|--|----------------------|---|--|----------------|-------|-----------|--------------|--------|------------|------------|--|--|--|--|--|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | | | | | | | | | | | | |
| Project Title: Area B Third Acid Train, Design/Construct | | | | Project Number: 5215110 | | Project Category: | | | | | | | | | | | | | | | |
| End Item Supported Model: Research Development Explosives (RDX) | | | | | | Annual Capacity Before / After (1-8-5): / | | | | | | | | | | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | | | | | | | | | | |
| A. Construction Cost | - | 62.000 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Jan 2021 Initial/Final Project Award: Sep 2019 / Sep 2021 Construction Complete: Jan 2024 Equipment Installation Complete: Jan 2024 Prove Out Begins: Jan 2024 Prove Out Complete: Aug 2024 | | | | | | | | | | | | | | | |
| B. Equipment Cost | - | 7.500 | - | - | - | | | | | | | | | | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | | | | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | | | | | | | | | | |
| H. Other Costs | - | 0.500 | - | - | - | | | | | | | | | | | | | | | | |
| Total Project Cost | - | 70.000 | - | - | - | Related Projects <table border="1"> <thead> <tr> <th>Project Number</th> <th>Title</th> <th>FY & Appn</th> <th>Value (\$ M)</th> <th>Facing</th> <th>Start Date</th> <th>Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | | | | | |
| Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

Narrative Explanation:

Procurement dollars in the amount of \$70.000 million supports construction of a third acid train facility at Holston Army Ammunition Plant (AAP). This effort supports the modernization initiative to expand annual production capacity of RDX at Holston AAP from eight million pounds to fifteen million pounds. Holston AAP requires expansion of the Acetic Acid and Acetic Anhydride production capacity which is utilized in the nitration of hexamine to crude for RDX and HMX. This modernization project will design a third acetic acid train and an additional acetic anhydride train facility at Holston. This modernization effort will eliminate reliance on the Area A process operations and improve safety as well as process reliability.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: New Kettle Drying Facility **Project Number:** 5215116 **Project Category:**

End Item Supported Model: Research Development Explosives (RDX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | 40.000 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Apr 2022 Initial/Final Project Award: Sep 2021 Construction Complete: Aug 2023 Equipment Installation Complete: Aug 2023 Prove Out Begins: Sep 2023 Prove Out Complete: Jun 2024 | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | 40.000 | - | - | - | | | | | | | |
| Related Projects | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$40.000 supports construction of a new kettle drying facility at Holston Army Ammunition Plant. The existing drying facilities utilize 1940s processes and operate with degraded equipment, which have exceeded their useful life and created contamination risks in explosives products. This project will design a fourth kettle drying facility at Building L-7 which will allow for higher drying capacity and permit shutdown and modernization of existing, antiquated drying facilities. The new kettle drying facility is critical in the production of CXM-7 which is a premix for PBXN-107, bomb fill, as well as other explosives products.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Nitration Facility, Design/Construct **Project Number:** 5215151 **Project Category:**

End Item Supported Model: Research Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | 75.000 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Apr 2021 Initial/Final Project Award: Dec 2019 / Sep 2021 Construction Complete: Feb 2024 Equipment Installation Complete: Feb 2024 Prove Out Begins: Feb 2024 Prove Out Complete: Aug 2024 | | | | | | |
| B. Equipment Cost | - | 12.000 | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | 5.000 | - | - | - | | | | | | | |
| Total Project Cost | - | 92.000 | - | - | - | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$92.000 million supports construction of a nitration facility at Holston Army Ammunition Plant. The existing batch nitration facility, Building D-5, cannot support future production requirements of RDX and HMX. The effort will construct a new nitration facility, upgrade supported infrastructure and ensure utility tie-ins. This effort supports the modernization initiative to expand annual production capacity of RDX at Holston AAP from eight million pounds to fifteen million pounds.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Critical Spares **Project Number:** 5205154 **Project Category:**

End Item Supported Model: Research Develop Expl(RDX),High Melt Expl(HMX),Insensitive Mun Expl(IMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|-------------------------|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Dec 2020 Construction Complete: Equipment Installation Complete: Jun 2022 Prove Out Begins: Prove Out Complete: | Related Projects | | | | | | |
| B. Equipment Cost | 5.228 | - | - | - | - | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | | |
| H. Other Costs | 0.998 | - | - | - | - | | | | | | | | |
| Total Project Cost | 6.226 | - | - | - | - | | | | | | | | |

Narrative Explanation:
 Procurement dollars in the amount of \$6.226 million supports procurement of critical spares for explosive production operations at Holston Army Ammunition Plant. This project will include procurement of long lead equipment spares to prevent long-term production interruptions and will decrease production downtime and provide reliable backup supply for the aging components and parts across the plant to ensure production continuity. Effort also includes award of major maintenance activities.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: ANSol Tank Farms, (B-5, B-11), Construct **Project Number:** 5XX5168 **Project Category:**

End Item Supported Model: Research Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | 22.500 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Dec 2020 Initial/Final Project Award: Dec 2019 / Sep 2022 Construction Complete: Sep 2023 Equipment Installation Complete: Sep 2023 Prove Out Begins: Sep 2023 Prove Out Complete: May 2024 | | | | | | |
| B. Equipment Cost | - | 7.000 | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | 0.500 | - | - | - | | | | | | | |
| Total Project Cost | - | 30.000 | - | - | - | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$30.000 million supports replacement and construction of tanks B-5 and B-11 in the acid tank farms at Holston Army Ammunition Plant (AAP). The tanks support the storage of Ammonium Nitrate (ANSol), a byproduct of the Holston AAP production operations. Existing storage capacity is insufficient to support future RDX and HMX production requirements. The new Tank Farm will be compliant with all necessary RCRA (Resource Conservation and Recovery Act) requirements for the maintenance and storage of hazardous materials.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Building N-8, Repair/Upgrades **Project Number:** 5215176 **Project Category:**

End Item Supported Model: Research Development Explosives (RDX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | 16.900 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2021 Construction Complete: Aug 2023 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | 16.900 | - | - | - | | | | | | | |
| Related Projects | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$16.900 million supports repairs and upgrades to Building N-8 at Holston Army Ammunition (AAP). Repairs are required to fully restore Building N-8 which was damaged during a 2018 explosion. This effort also includes associated infrastructure upgrades to electrical, steam and water lines. Effort is required to maintain explosives production continuity at Holston AAP.

The program did not execute the FY20 phase as it was not included in the FY20 NDAA.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Barricade Modernization Upgrades **Project Number:** 5215177 **Project Category:**

End Item Supported Model: Research Develop Expl(RDX),High Melt Expl(HMX),Insensitive Mun Expl(IMX) **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | 3.500 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Jul 2021 Construction Complete: May 2023 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | 3.500 | - | - | - | | | | | | | |
| Related Projects | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$3.500 million supports modernization upgrades to the barricade structures at Holston Army Ammunition Plant. The existing structures were installed as early as the 1940s and have deteriorated and exceeded their useful life. The structures are required to provide explosives safety arcs and protection of surrounding facilities and buildings. This effort will reinforce and upgrade the barricades and foundations as needed.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: TATB Production Facility, Mod Upgrades **Project Number:** 5215178 **Project Category:**

End Item Supported Model: PBX-9502 and LX-17 **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|-------|-----------|------------------------|--------|------------|------------|
| A. Construction Cost | - | 2.000 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Jul 2021 Construction Complete: Dec 2022 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | 2.000 | - | - | - | | | | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value <i>(\$ M)</i> | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$2.000 million supports modernization upgrades to the Trinitrobenzene (TATB) production facility at Holston Army Ammunition Plant. TATB is utilized in PBXN-9602 and LX-17 munitions. The facility was reactivated in 2010; these upgrades will provide for modern, state-of-the-art equipment and processes and allow an increase in annual production.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: G Building River Water Usage Reduction **Project Number:** 5225283 **Project Category:**

End Item Supported Model: RDX, HMX, IMX **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Holston Army Ammunition Plant | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|-------------------------|---------------|-------------------|-------------------|
| | | | | | | Facility Location: Kingsport, Tennessee | | | | | | |
| A. Construction Cost | - | - | 3.090 | - | 3.090 | Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
| B. Equipment Cost | - | - | 0.325 | - | 0.325 | Principal Milestones | | | Month & Year | | | |
| C. Equipment Installation Cost | - | - | 1.075 | - | 1.075 | Concept Design Complete: | | | Jul 2022 | | | |
| D. Contractor Support Cost | - | - | - | - | - | Final Design Complete: | | | Mar 2022 | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | Initial/Final Project Award: | | | Mar 2022 | | | |
| F. Other In-House Support Cost | - | - | - | - | - | Construction Complete: | | | Jun 2023 | | | |
| G. Total Facility Project Cost | - | - | - | - | - | Equipment Installation Complete: | | | Mar 2024 | | | |
| H. Other Costs | - | - | 0.510 | - | 0.510 | Prove Out Begins: | | | Mar 2024 | | | |
| Total Project Cost | - | - | 5.000 | - | 5.000 | Prove Out Complete: | | | Jul 2024 | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$5.000 million support the modernization of G Building to reduce river water usage at Holston Army Ammunition Plant. This project would reduce the amount of non-contact cooling water (NCCW) used and the electricity costs by limiting the supply of river water to condensers. Effort will purchase and install valves and instrumentation necessary to monitor and regulate the amount of river water used in specific buildings. This will help reduce the amount of river water taken from the Holston River and with future projects planned at these locations (e.g., installation of Closed Loop NCCW systems) that support meeting compliance with EPA Clean Water Act Rule 316(b).

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Replace Main Sewage **Project Number:** 5203410 **Project Category:**

End Item Supported Model: Artillery, Mortars, Demolitions, Tank, 40mm Ammo and Missiles **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|--------------|----------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | 8.790 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2020 Construction Complete: Mar 2022 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 8.790 | - | - | - | - | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$8.790 million supports replacement of the main sewage treatment system at Iowa Army Ammunition Plant. The existing treatment facility was constructed in the 1940s and has exceeded its useful life. This effort will ensure the Plant's treatment facility achieves state and federal environmental compliance. This effort will construct a right-sized treatment facility and integrate state-of-the-art technology to improve energy efficiency and reduce operational costs.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | |
|---|----------------|----------------|---------------------|--------------------|----------------------|--|--------------|--------------------------|---------------------|---------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | |
| Project Title: Roadway Mod Improvements | | | | | | Project Number: 5203745 | | Project Category: | | | | |
| End Item Supported Model: 40mm, Artillery, Mortar, Tank | | | | | | Annual Capacity Before / After (1-8-5): / | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
| A. Construction Cost | 6.300 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2020 Construction Complete: Mar 2022 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 6.300 | - | - | - | - | | | | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:

Procurement dollars in the amount of \$6.300 million supports roadway modernization improvements at Iowa Army Ammunition Plant (AAP). These roads have deteriorated to a condition in which routine maintenance is no longer economically feasible. Effort will rehabilitate approximately 5 miles of roadways, including Roads C, I (central) and H (south) . The rehabilitation of these roads will ensure safe travel of explosive laden trucks and maintain continuity of 40mm, artillery and mortar load, assemble and pack (LAP) operations at Iowa AAP.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: IAAAP Footprint Reduction - Long Range Precision Artillery Production Facility **Project Number:** 5XX5030 **Project Category:**

End Item Supported Model: Mortars, Artillery **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | 105.000 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Oct 2020 Final Design Complete: Sep 2019 / Jun 2022 Initial/Final Project Award: Jan 2024 Construction Complete: Jan 2025 Equipment Installation Complete: Feb 2025 Prove Out Begins: Jul 2025 Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | 25.000 | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | 5.600 | 2.500 | - | 2.500 | | | | | | | |
| Total Project Cost | - | 135.600 | 2.500 | - | 2.500 | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$2.500 million supports construction of an artillery production facility at Iowa Army Ammunition Plant. This effort reduces footprint of artillery and mortar melt pour process line production operations. The existing production facilities provide low rate, labor-intensive batch production operations with minimal process controls. The facility contains aging equipment and infrastructure and cannot meet production capacity requirements for load operations of insensitive munitions. The new artillery production facility will achieve efficient manufacturing operations, improve quality control, and allow for production of next generation artillery, while being capable of scaling capacity for both peace and war production requirements.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: 40MM High Velocity Grenade Defuze & Refuze **Project Number:** 5215121 **Project Category:**

End Item Supported Model: 40mm **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | 1.125 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2021 Construction Complete: Dec 2022 Equipment Installation Complete: Dec 2022 Prove Out Begins: Jan 2023 Prove Out Complete: Apr 2023 | | | | | | |
| B. Equipment Cost | - | 0.635 | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | 1.760 | - | - | - | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$1.760 million supports modernization upgrades to defuze and refuze 40mm high velocity grenades at Iowa Army Ammunition Plant. This effort will allow the Army to upgrade legacy M549 fuzes to a more modern M549A1 PD fuze. Effort will also avoid costly demilitarization expenses.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | | | | | | | | | | |
|---|----------------|----------------------|---------------------|--|----------------------|--|--|-----------------------|--------------|----------------------|---------------------|---------------|-------------------|-------------------|--|--|--|--|--|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | | | | | | | | | | | | |
| Project Title: Automate M112 Bagging Operations | | | | Project Number: 5205122 | | Project Category: | | | | | | | | | | | | | | | |
| End Item Supported Model: M112 | | | | | | Annual Capacity Before / After (1-8-5): / | | | | | | | | | | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | | | | | | | | | | |
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2020 Construction Complete: Mar 2022 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | | | | | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | | | | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | | | | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | | | | | | | | | | |
| H. Other Costs | 1.710 | - | - | - | - | Related Projects <table border="1"> <thead> <tr> <th>Project Number</th> <th>Title</th> <th>FY & Appn</th> <th>Value (\$ M)</th> <th>Facing</th> <th>Start Date</th> <th>Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | | | | | |
| Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | | | Compl Date | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| Total Project Cost | 1.710 | - | - | - | - | | | | | | | | | | | | | | | | |

Narrative Explanation:

Procurement dollars in the amount of \$1.710 million supports development and installation of automated bagging operations of M112 at Iowa Army Ammunition Plant. Effort will install an alternate bag for M112 demolition block production and install automated equipment for packaging the C4 pellet into the new bag. The existing process is labor intensive and lengthy. The new process will eliminate rejects and reduce packaging costs.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Design & Construct New Metrology Lab **Project Number:** 5215125 **Project Category:**

End Item Supported Model: Artillery, Mine Clearing Line Charge (MICLIC), Tank, 40MM **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------------|----------------------|-------------------------|----------------|-------------------|--|--|--|--|--|-----------------------------|--|--|-------------------------|--|--|--------------------------|--|--|--|--|--|------------------------|--|--|----------|--|--|------------------------------|--|--|----------|--|--|------------------------|--|--|----------|--|--|----------------------------------|--|--|----------|--|--|-------------------|--|--|----------|--|--|---------------------|--|--|----------|--|--|
| A. Construction Cost | - | 3.610 | - | - | - | <table style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: left;">Principal Milestones</th> <th colspan="3" style="text-align: left;">Month & Year</th> </tr> <tr> <td colspan="3">Concept Design Complete:</td> <td colspan="3"></td> </tr> <tr> <td colspan="3">Final Design Complete:</td> <td colspan="3" style="text-align: right;">Oct 2021</td> </tr> <tr> <td colspan="3">Initial/Final Project Award:</td> <td colspan="3" style="text-align: right;">Jul 2021</td> </tr> <tr> <td colspan="3">Construction Complete:</td> <td colspan="3" style="text-align: right;">Sep 2022</td> </tr> <tr> <td colspan="3">Equipment Installation Complete:</td> <td colspan="3" style="text-align: right;">Sep 2022</td> </tr> <tr> <td colspan="3">Prove Out Begins:</td> <td colspan="3" style="text-align: right;">Oct 2022</td> </tr> <tr> <td colspan="3">Prove Out Complete:</td> <td colspan="3" style="text-align: right;">Mar 2023</td> </tr> </table> | | | | | Principal Milestones | | | Month & Year | | | Concept Design Complete: | | | | | | Final Design Complete: | | | Oct 2021 | | | Initial/Final Project Award: | | | Jul 2021 | | | Construction Complete: | | | Sep 2022 | | | Equipment Installation Complete: | | | Sep 2022 | | | Prove Out Begins: | | | Oct 2022 | | | Prove Out Complete: | | | Mar 2023 | | |
| Principal Milestones | | | Month & Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Concept Design Complete: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Final Design Complete: | | | Oct 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Initial/Final Project Award: | | | Jul 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction Complete: | | | Sep 2022 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment Installation Complete: | | | Sep 2022 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prove Out Begins: | | | Oct 2022 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prove Out Complete: | | | Mar 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B. Equipment Cost | - | 1.250 | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H. Other Costs | - | 0.540 | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Project Cost | - | 5.400 | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Related Projects | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Narrative Explanation:
 Procurement dollars in the amount of \$5.400 million supports design and construction of a facility housing a new metrology and plastics material lab at Iowa Army Ammunition Plant. The existing metrology lab was constructed in early 1960's for gage and measurement analyses to support production operations. Smaller precision-manufactured parts require tighter tolerances and increased reliability. The new facility will reduce inspection cycle time, improved throughput and analyze large amounts of dimensional data to reduce production costs. The new facility will be approximately 5,800 square feet and will also contain new tool and die operations. This effort also includes associated infrastructure support upgrades.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | |
|---|----------------|----------------|---------------------|--------------------|----------------------|--|--------------|--------------------------|---------------------|---------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | |
| Project Title: Improve 40mm Grenade & Spitback Pressing | | | | | | Project Number: 5205304 | | Project Category: | | | | |
| End Item Supported Model: 40mm | | | | | | Annual Capacity Before / After (1-8-5): / | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
| A. Construction Cost | 5.093 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Jun 2020 Construction Complete: Jun 2023 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 5.093 | - | - | - | - | | | | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:

Procurement dollars in the amount of \$5.093 million supports modernization improvements and relocation of pressing operations at Iowa Army Ammunition Plant. During a recent safety site plan review, the existing facilities that house the spitback pressing process lack sufficient production load limit requirements. This facilities and maintenance effort will acquire and install new production presses, increase efficiencies and improve safety.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | |
|---|----------------|----------------|---------------------|--------------------|----------------------|--|--------------|--------------------------|---------------------|---------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | |
| Project Title: Building 1 - 11 Inert Storage | | | | | | Project Number: 5225126 | | Project Category: | | | | |
| End Item Supported Model: | | | | | | Annual Capacity Before / After (1-8-5): / | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
| A. Construction Cost | - | - | 6.400 | - | 6.400 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Mar 2022 Construction Complete: Mar 2024 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | - | 6.400 | - | 6.400 | | | | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:

FY 2022 Base procurement dollars in the amount of \$6.400 million supports construction of an inert storage facility in Building 1-11 at Iowa Army Ammunition Plant. Effort will design, procure and construct a pre-fabriacted metal structure. The new inert storage facility will store material safely while maintaining product quality for both short and moderate durations of production time. Centralizing storage capabilities will reduce costs and support strategy to reduce the Plant's footprint reduction.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------|----------------------|---------------------|--|----------------------|---|--|-----------------------------|-------------------------|--------------------------|--|------------------------|--|------------------------------|-----------------------|------------------------|----------------------|----------------------------------|---------------|-------------------|-------------------|---------------------|--|--|--|--|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Title: Primary Water Pump Station | | | | Project Number: 5225240 | | Project Category: | | | | | | | | | | | | | | | | | | | | | | |
| End Item Supported Model: 40MM, 1200MM, Artillery HE, Mortar 60MM, 120MM | | | | | | Annual Capacity Before / After (1-8-5): / | | | | | | | | | | | | | | | | | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | | | | | | | | | | | | | | | | | |
| A. Construction Cost | - | - | 1.900 | - | 1.900 | <table border="0"> <tr> <td>Principal Milestones</td> <td>Month & Year</td> </tr> <tr> <td>Concept Design Complete:</td> <td></td> </tr> <tr> <td>Final Design Complete:</td> <td></td> </tr> <tr> <td>Initial/Final Project Award:</td> <td>Feb 2022</td> </tr> <tr> <td>Construction Complete:</td> <td>Sep 2023</td> </tr> <tr> <td>Equipment Installation Complete:</td> <td></td> </tr> <tr> <td>Prove Out Begins:</td> <td></td> </tr> <tr> <td>Prove Out Complete:</td> <td></td> </tr> </table> | | Principal Milestones | Month & Year | Concept Design Complete: | | Final Design Complete: | | Initial/Final Project Award: | Feb 2022 | Construction Complete: | Sep 2023 | Equipment Installation Complete: | | Prove Out Begins: | | Prove Out Complete: | | | | | | |
| Principal Milestones | Month & Year | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Concept Design Complete: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Final Design Complete: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Initial/Final Project Award: | Feb 2022 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction Complete: | Sep 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment Installation Complete: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prove Out Begins: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prove Out Complete: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B. Equipment Cost | - | - | 0.300 | - | 0.300 | | | | | | | | | | | | | | | | | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | |
| Total Project Cost | - | - | 2.200 | - | 2.200 | <table border="1"> <thead> <tr> <th colspan="7">Related Projects</th> </tr> <tr> <th>Project Number</th> <th>Title</th> <th>FY & Appn</th> <th>Value (\$ M)</th> <th>Facing</th> <th>Start Date</th> <th>Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | Related Projects | | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | | | | | |
| Related Projects | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Narrative Explanation:

FY 2022 Base procurement dollars in the amount of \$2.200 million supports construction of a new primary water pump station at Iowa Army Ammunition Plant. This project supports the continuity of the entire facility water supply system to include domestic water as well as fire suppression systems in all production and administrative areas. Effort will acquire and replace the existing primary pump components at gate-1 pump house relocate and construct new facility to house the equipment. The existing pump house system is over 40 years old and contains antiquated pumps and motors. Replacement of existing pumps and controls will ensure adequate water supplies, decrease operating cost and improve communication between the pump system and water supply towers.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | |
|---|----------------|----------------|---------------------|--------------------|----------------------|---|--------------|--------------------------|---------------------|---------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | |
| Project Title: Line 3A Sustainment | | | | | | Project Number: 5225241 | | Project Category: | | | | |
| End Item Supported Model: | | | | | | Annual Capacity Before / After (1-8-5): / | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
| A. Construction Cost | - | - | 3.000 | - | 3.000 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Feb 2022 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | - | 3.000 | - | 3.000 | | | | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:

FY 2022 Base procurement dollars in the amount of \$3.000 million supports repairs and upgrades to Line 3A production operations at Iowa Army Ammunition Plant. Line 3A provides melt pour operations of artillery and mortar munitions. The line has been in operations for over twenty-five years and requires upgrades to prevent production interruptions. The new, modern melt pour operation will not be installed until FY 2027. This effort will maintain production continuity until the new line is constructed and commissioned.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Small Caliber Modernization, Next Generation Squad Weapon Ammunition facility **Project Number:** 5XX3356 **Project Category:**

End Item Supported Model: 6.8mm **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Lake City Army Ammunition Plant Facility Location: Independence, Missouri Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------------|---------------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | 7.500 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Sep 2023 Initial/Final Project Award: Dec 2017 / Aug 2022 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | 25.000 | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | 3.500 | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | 6.001 | 4.000 | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | 33.999 | - | 30.000 | - | 30.000 | | | | | | | |
| Total Project Cost | 40.000 | 40.000 | 30.000 | - | 30.000 | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$30.000 million supports final design efforts for construction of the Next Generation Squad Weapon (NGSW) Ammunition facility at Lake City AAP. The facility will be capable of producing three new, 6.8mm NGSW ammunition rounds that will provide munitions overmatch for the joint warfighter. Effort includes engineering, design optimization, facility modernization, facility construction, infrastructure improvements, equipment procurement and installation, and site preparation efforts, to include demolition of existing facilities, to support brownfield construction of the new NGSW facility. Joint Program Executive Office (JPEO) Armaments and Ammunition is the agency lead for the development of a new squad weapon ammunition round to increase soldier lethality. Lake City AAP was identified as the production site for the NGSW round due to its existing ammunition production support infrastructure and its ability to retain highly qualified, expert small caliber ammunition manufacturing personnel. The project objective is to meet low rate production of the NGSW round by FY 2025.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

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|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities |
|--|--|

| | | |
|--|--------------------------------|--------------------------|
| Project Title: Next Generation Squad Weapon Ammunition facility, Infrastructure Mod | Project Number: 5223359 | Project Category: |
|--|--------------------------------|--------------------------|

| | |
|--|--|
| End Item Supported Model: 6.8mm | Annual Capacity Before / After (1-8-5): / |
|--|--|

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Lake City Army Ammunition Plant Facility Location: Independence, Missouri Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------|-------------------------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-----------------------------|-------------------|-------------------------|--|--|--------------------------|--|--|--|--|------------------------|--|--|--|--|------------------------------|--|----------|--|--|------------------------|--|----------|--|--|----------------------------------|--|----------|--|--|-------------------|--|--|--|--|---------------------|--|--|--|--|
| A. Construction Cost | - | - | 8.657 | - | 8.657 | <table border="0" style="width: 100%;"> <tr> <td colspan="2">Principal Milestones</td> <td colspan="3" style="text-align: right;">Month & Year</td> </tr> <tr> <td colspan="2">Concept Design Complete:</td> <td colspan="3"></td> </tr> <tr> <td colspan="2">Final Design Complete:</td> <td colspan="3"></td> </tr> <tr> <td colspan="2">Initial/Final Project Award:</td> <td colspan="3" style="text-align: right;">Apr 2022</td> </tr> <tr> <td colspan="2">Construction Complete:</td> <td colspan="3" style="text-align: right;">Sep 2023</td> </tr> <tr> <td colspan="2">Equipment Installation Complete:</td> <td colspan="3" style="text-align: right;">Sep 2023</td> </tr> <tr> <td colspan="2">Prove Out Begins:</td> <td colspan="3"></td> </tr> <tr> <td colspan="2">Prove Out Complete:</td> <td colspan="3"></td> </tr> </table> | | | | | Principal Milestones | | Month & Year | | | Concept Design Complete: | | | | | Final Design Complete: | | | | | Initial/Final Project Award: | | Apr 2022 | | | Construction Complete: | | Sep 2023 | | | Equipment Installation Complete: | | Sep 2023 | | | Prove Out Begins: | | | | | Prove Out Complete: | | | | |
| Principal Milestones | | Month & Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Concept Design Complete: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Final Design Complete: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Initial/Final Project Award: | | Apr 2022 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction Complete: | | Sep 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment Installation Complete: | | Sep 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prove Out Begins: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prove Out Complete: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B. Equipment Cost | - | - | 7.500 | - | 7.500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C. Equipment Installation Cost | - | - | 2.587 | - | 2.587 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H. Other Costs | - | - | 6.256 | - | 6.256 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Project Cost | - | - | 25.000 | - | 25.000 | Related Projects | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$25.000 million supports infrastructure improvements and modernization to existing facilities to support the Next Generation Squad Weapon (NGSW) Ammunition facility at Lake City AAP. The Plant will be capable of producing three new, 6.8mm NGSW ammunition rounds that will provide munitions overmatch for the joint warfighter. Effort includes site preparation to existing buildings for purchase and storage of production equipment, material handling and ancillary support efforts for the new NGSW facility. Joint Program Executive Office (JPEO) Armaments and Ammunition is the agency lead for the development of a new squad weapon ammunition round to increase soldier lethality. Lake City AAP was identified as the production site for the NGSW round due to its existing ammunition production support infrastructure and its ability to retain highly qualified, expert small caliber ammunition manufacturing personnel. The project objective is to meet low rate production of the NGSW round by FY 2025.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Primer Assembly Wing, Building 35, HVAC (Construct) **Project Number:** 5213459 **Project Category:**

End Item Supported Model: 20mm, 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Lake City Army Ammunition Plant Facility Location: Independence, Missouri Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | | | | | | | | |
|---|---------|-----------|------------------------|----------------|------------------|--|-------|-----------|------------------------|--------|------------|------------|--|--|--|--|--|--|--|
| A. Construction Cost | - | 1.100 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2021 Construction Complete: Sep 2022 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | | | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | | | | | | | | |
| Total Project Cost | - | 1.100 | - | - | - | | | | | | | | | | | | | | |
| Related Projects | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 40%;">Title</th> <th style="width: 10%;">FY & Appn</th> <th style="width: 10%;">Value <i>(\$ M)</i></th> <th style="width: 10%;">Facing</th> <th style="width: 10%;">Start Date</th> <th style="width: 10%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | | | | | Project Number | Title | FY & Appn | Value <i>(\$ M)</i> | Facing | Start Date | Compl Date | | | | | | | |
| Project Number | Title | FY & Appn | Value <i>(\$ M)</i> | Facing | Start Date | Compl Date | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

Narrative Explanation:
 Procurement dollars in the amount of \$1.100 million supports facilities and modernization upgrades to the heating, ventilation and air conditioning (HVAC) throughout the primer assembly wing in Building 35 at Lake City Army Ammunition Plant. The existing HVAC system was installed in the early 1970's and operates with antiquated pneumatic controls and compressors utilized phased-out refrigerant. The system lacks proper filtration and it has far exceeded its life expectancy. Proper temperature and conditioned air is important in producing consistent, high quality primers for 5.56mm, 7.62mm, and .50 cal, as well and helping to maintain employee health and alertness while handling explosives. This effort will also install modular air handler with filtration, reheat, humidification, and monitoring and alarming tie-ins to the plant-wide Metasys Building Management Systems.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------|----------------------|-------------------------|--------------------|----------------------|---|--|--------------------------|--|--|-----------------------------|--|--|-------------------------|--|--------------------------|--|-----------------------|--------------|----------------------|------------------------|---------------|-------------------|-------------------|--|------------------------------|--|--|----------|--|------------------------|--|--|----------|--|----------------------------------|--|--|--|--|-------------------|--|--|--|--|---------------------|--|--|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Title: HVAC Modifications, Loading And Exhaust (Construct) | | | | | | Project Number: 5213652 | | Project Category: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| End Item Supported Model: .50 Cal, 20mm, 7.62mm | | | | | | Annual Capacity Before / After (1-8-5): / | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Lake City Army Ammunition Plant Facility Location: Independence, Missouri Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A. Construction Cost | - | 22.340 | - | - | - | <table border="0"> <tr> <td colspan="3">Principal Milestones</td> <td colspan="2">Month & Year</td> </tr> <tr> <td colspan="3">Concept Design Complete:</td> <td colspan="2"></td> </tr> <tr> <td colspan="3">Final Design Complete:</td> <td colspan="2">Mar 2019</td> </tr> <tr> <td colspan="3">Initial/Final Project Award:</td> <td colspan="2">Jul 2021</td> </tr> <tr> <td colspan="3">Construction Complete:</td> <td colspan="2">Jan 2023</td> </tr> <tr> <td colspan="3">Equipment Installation Complete:</td> <td colspan="2"></td> </tr> <tr> <td colspan="3">Prove Out Begins:</td> <td colspan="2"></td> </tr> <tr> <td colspan="3">Prove Out Complete:</td> <td colspan="2"></td> </tr> </table> | | | | | Principal Milestones | | | Month & Year | | Concept Design Complete: | | | | | Final Design Complete: | | | Mar 2019 | | Initial/Final Project Award: | | | Jul 2021 | | Construction Complete: | | | Jan 2023 | | Equipment Installation Complete: | | | | | Prove Out Begins: | | | | | Prove Out Complete: | | | | |
| Principal Milestones | | | Month & Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Concept Design Complete: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Final Design Complete: | | | Mar 2019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Initial/Final Project Award: | | | Jul 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction Complete: | | | Jan 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment Installation Complete: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prove Out Begins: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prove Out Complete: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Project Cost | - | 22.340 | - | - | - | <table border="1"> <thead> <tr> <th colspan="7">Related Projects</th> </tr> <tr> <th>Project Number</th> <th>Title</th> <th>FY & Appn</th> <th>Value (\$ M)</th> <th>Facing</th> <th>Start Date</th> <th>Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | | | | Related Projects | | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Related Projects | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Narrative Explanation:

Procurement dollars in the amount of \$22.340 million support installation of HVAC supply and exhaust systems in the charging wing of Building 1 and Building 3 at Lake City Army Ammunition Plant. While upgrades to the HVAC systems in the production areas were completed in 2018, the existing HVAC systems in these wings are inefficient and have exceeded their life expectancy. This effort will provide reliable, efficient systems by providing temperature and humidity control for quality manufacturing of explosives. It will also provide for a safer environment in energetic areas.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: IWTP Lagoon Liners & Filter Press **Project Number:** 5213792 **Project Category:**

End Item Supported Model: 20mm, 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Lake City Army Ammunition Plant Facility Location: Independence, Missouri Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | 14.000 | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: May 2021 Construction Complete: Nov 2023 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | 14.000 | - | - | - | | | | | | | |
| Related Projects | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$14.000 million support replacement of the industrial waste water treatment plant (IWTP) lagoon liners at Lake City Army Ammunition Plant. The liners prevent groundwater contamination from the IWTP. The existing liners were installed in the 1988 and have been repaired multiple times. The lagoons will be dewatered, cleaned, and the liners replaced in an alternating phased construction. Replacement is required to ensure environmental compliance.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | |
|---|----------------|----------------|---------------------|--------------------|----------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | |
| Project Title: Utility Systems Protection | | | | | | Project Number: 5215025 | | | | | | |
| End Item Supported Model: 20mm, 5.56mm, 7.62mm, Cal .50 | | | | | | Project Category: | | | | | | |
| Annual Capacity Before / After (1-8-5): / | | | | | | | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Lake City Army Ammunition Plant | | | | | | |
| A. Construction Cost | - | 0.700 | - | - | - | Facility Location: Independence, Missouri | | | | | | |
| B. Equipment Cost | - | - | - | - | - | Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | Principal Milestones | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | Month & Year | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | Concept Design Complete: | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | Final Design Complete: | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | Initial/Final Project Award: Sep 2021 | | | | | | |
| H. Other Costs | - | - | - | - | - | Construction Complete: Mar 2023 | | | | | | |
| Total Project Cost | - | 0.700 | - | - | - | Equipment Installation Complete: | | | | | | |
| | | | | | | Prove Out Begins: | | | | | | |
| | | | | | | Prove Out Complete: | | | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$0.700 million supports modernization upgrades to the manufacturing facility utility systems at Lake City Army Ammunition Plant. This effort will protect and secure existing utilities (compressed air, natural gas, water, and electrical) from interruptions or damage to structures.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Modernize B90 Series Neutralization Process & Tanks **Project Number:** 5225231 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Lake City Army Ammunition Plant Facility Location: Independence, Missouri Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | 9.000 | - | 9.000 | Principal Milestones Month & Year Concept Design Complete: Jul 2022 Final Design Complete: Apr 2022 Initial/Final Project Award: Mar 2024 Construction Complete: Mar 2024 Equipment Installation Complete: May 2024 Prove Out Begins: May 2024 Prove Out Complete: Jul 2024 | | | | | | |
| B. Equipment Cost | - | - | 3.500 | - | 3.500 | | | | | | | |
| C. Equipment Installation Cost | - | - | 1.000 | - | 1.000 | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | 0.500 | - | 0.500 | | | | | | | |
| Total Project Cost | - | - | 14.000 | - | 14.000 | | | | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$14.000 million to support modernization of Building 90 Series neutralization processes and tanks at Lake City Army Ammunition Plant (AAP). This effort will upgrade the neutralization operations for energetic waste water from the primer mix operations at Lake City AAP to minimize human, manual interaction with explosive wastewater and improve worker safety. It will focus on Bldgs. 90A and 90C. The process used to neutralize explosive waste remains essentially the same since the plant's opening 80 years ago. Operators are exposed to energetic materials, hazardous chemicals and operate in confined spaces. This project will leverage lessons learn from the upgrade of Bldg. 81 neutralization which has incorporated extensive automation.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: NAC/SAC Process Improvements **Project Number:** 5203120 **Project Category:**

End Item Supported Model: Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | 9.900 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2021 Construction Complete: Sep 2023 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 9.900 | - | - | - | - | | | | | | | |
| Related Projects | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$9.900 million supports various process improvements to the nitric acid concentrator and sulfuric acid concentrator (NAC/SAC) at Radford Army Ammunition Plant. This facilities and maintenance effort includes modernization design, procurement and installation of various process equipment. Effort will enhance the process operations of the NAC/SAC facility to support Radford AAP's annual NC production capacity of 24-28M pounds.

 Effort executed in accordance with the FY20 NDAA.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Chemical Grind Facility **Project Number:** 5223140 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | 43.215 | - | 43.215 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Jun 2022 Construction Complete: Sep 2024 Equipment Installation Complete: Sep 2024 Prove Out Begins: Sep 2024 Prove Out Complete: Mar 2025 | | | | | | |
| B. Equipment Cost | - | - | 12.415 | - | 12.415 | | | | | | | |
| C. Equipment Installation Cost | - | - | 4.250 | - | 4.250 | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | 3.250 | - | 3.250 | | | | | | | |
| Total Project Cost | - | - | 63.130 | - | 63.130 | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$63.130 million supports the construction of a chemical grind facility at Radford Army Ammunition Plant. The current Chemical Grind facility, which is used to grind, sift, sort, and weigh out chemicals accurately for use in production, has been in service since the plant was built in the 1940s and has exceeded its service life. The entire facility is in poor condition. Safety, health, and environmental regulations have changed significantly since the original date of construction resulting in the need for improvement to these operations to bring them fully into compliance with current regulations.

 The new facility will be located in an area of the plant outside of the 100-year floodplain and include bulk material storage in the warehouse portion of the facility instead of at a separate location over a mile away like the current facility. It will be constructed of durable building materials capable of providing a minimum of 50 years of service life. It will also comply with all current safety, health, and environmental regulations to minimize operator exposure to toxic chemicals and potential releases of these chemicals to the environment.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Barricade Replacement, Ph 1 **Project Number:** 5203567 **Project Category:**

End Item Supported Model: Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|-------|-----------|------------------------|--------|------------|------------|
| A. Construction Cost | 9.641 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2020 Construction Complete: Nov 2021 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 9.641 | - | - | - | - | | | | | | | |
| Related Projects | | | | | | | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value <i>(\$ M)</i> | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$9.641 million supports replacement of barricades at Radford Army Ammunition Plant (AAP). This project will support the demolition and replacement of wooden barricades identified to support production at Radford AAP. Project will properly dispose of the wood, metal, fill dirt, and obsolete electrical components from each barricade demolished. Install foundations as needed and rebuild wooden barricades to current Corp of Engineers specifications.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Workplace Safety Upgrades **Project Number:** 5XX3753 **Project Category:**

End Item Supported Model: Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|--------------|----------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | 5.990 | - | 9.000 | - | 9.000 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Mar 2021 / May 2022 Construction Complete: Dec 2023 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 5.990 | - | 9.000 | - | 9.000 | | | | | | | |
| Related Projects | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$9.000 million support modernization upgrades to improve safety measures and reduce risk of injury to personnel at Radford Army Ammunition Plant (AAP). This project will address major deficiencies in several production areas across numerous Radford AAP operations that will provide for a safer manufacturing environment for the entire plant. Efforts include replacement or repair of aging and deteriorated equipment as well as process enhancement measures to reduce safety risk.

 Phase 1 executed as an urgent, major maintenance requirement.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Solventless/Rocket Area, Prod Operations **Project Number:** 5XX5141 **Project Category:**

End Item Supported Model: Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|--------------|----------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | 4.334 | - | 5.000 | - | 5.000 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Dec 2019 / Jul 2022 Construction Complete: Jul 2023 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 4.334 | - | 5.000 | - | 5.000 | | | | | | | |
| Related Projects | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$5.000 million supports second phase to modernize and sustain production operations of solventless propellant at Radford Army Ammunition Plant. Effort will stabilize the solventless areas, rocket and roll powder, to maintain production continuity. This effort includes replacement of critical equipment and identification assessment of corrective maintenance actions.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Solvent Propellant Facility Sustainment, Ph 2 **Project Number:** 5XX5145 **Project Category:**

End Item Supported Model: Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | 5.900 | - | 5.900 | - | 5.900 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Sep 2020 / May 2022 Construction Complete: Sep 2023 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | 2.400 | - | 2.400 | | | | | | | |
| Total Project Cost | 5.900 | - | 8.300 | - | 8.300 | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$8.300 million supports modernization and sustainment of the solvent propellant facility at Radford Army Ammunition Plant. The facility was constructed during the 1940s and has operated beyond its useful life. This effort is the second phase to replace critical production equipment and infrastructure and provide assessment of future corrective actions. Effort is required to ensure production continuity of solvent propellants until a new, modernized facility is designed and constructed.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Alternate Nitrate Ester Facility (NG-3) **Project Number:** 5225090 **Project Category:**

End Item Supported Model: multi-base propellants for medium, large caliber, rocket grain munitions **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | 2.000 | - | 2.000 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Sep 2023 Initial/Final Project Award: Apr 2022 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | 26.200 | - | 26.200 | | | | | | | |
| Total Project Cost | - | - | 28.200 | - | 28.200 | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$28.200 million supports design of a new nitrate ester facility at Radford Army Ammunition Plant. Nitrate esters (nitroglycerin (NG)) are critical additives in the production of large caliber propellants and rocket grains. The existing facility was built in the 1960s and was last modernized in the mid-1980s; it has far surpassed its operational life. Additionally, the NG facilities have experienced three catastrophic incidents in the last 17 years. Project may also include construction efforts, site prep and removal of existing buildings to support the new NG-3 facility. The new facility will significantly increase safety and product quality by utilizing totally remote and automated processes, reducing operator exposure to chemicals and energetics.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Infrastructure & Safety Efforts **Project Number:** 5205139 **Project Category:**

End Item Supported Model: Large Caliber Steel and Brass Cartridge Cases **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Quad City Cartridge Case Facility Facility Location: Rock Island Arsenal, IL Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|-------|-----------|------------------------|--------|------------|------------|
| A. Construction Cost | 2.000 | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Mar 2021 / Mar 2023 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | 2.000 | - | - | - | - | | | | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value <i>(\$ M)</i> | Facing | Start Date | Compl Date |

Narrative Explanation:
 Procurement dollars in the amount of \$2.000 million supports facilities maintenance, infrastructure and safety modernization infrastructure and safety modernization efforts at the Quad City Cartridge Case Facility. Effort will fund preventive, scheduled and unscheduled maintenance of production equipment and facilities that would prevent serious injury to personnel or effects to the environment.

 Effort executed in accordance with the FY20 NDAA.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Bliss III Press & Furnace Upgrades **Project Number:** 5223419 **Project Category:**

End Item Supported Model: M1128, M1113 **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Scranton Army Ammunition Plant | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|-------------------------|---------------------|---------------|-------------------|-------------------|
| | | | | | | Facility Location: Scranton, Pennsylvania | | | | | | |
| A. Construction Cost | - | - | - | - | - | Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
| B. Equipment Cost | - | - | 2.100 | - | 2.100 | Principal Milestones | | Month & Year | | | | |
| C. Equipment Installation Cost | - | - | 0.500 | - | 0.500 | Concept Design Complete: | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | Final Design Complete: | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | Initial/Final Project Award: | | Mar 2022 | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | Construction Complete: | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | Equipment Installation Complete: | | Mar 2024 | | | | |
| H. Other Costs | - | - | 0.150 | - | 0.150 | Prove Out Begins: | | Apr 2024 | | | | |
| Total Project Cost | - | - | 2.750 | - | 2.750 | Prove Out Complete: | | May 2024 | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$2.750 million supports modernization upgrades to the Bliss III Press and Furnace system at the Scranton Army Ammunition Plant. While the Bliss III Press and Furnace were rebuilt around FY 2007, there have been no significant upgrades to either Press since then. This effort will focus on providing a number of much needed upgrades to that equipment, including; replacing the descaler, upgrading the Furnace end effector and some robot upgrades and replacement within the press system. Effort will allow the Bliss III Press and Furnace system to continue to manufacture quality metal parts well into the future.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Saw Cell Automation & Modernization **Project Number:** 5223719 **Project Category:**

End Item Supported Model: M1128, M1113 **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Mar 2022 Construction Complete: Equipment Installation Complete: Apr 2023 Prove Out Begins: May 2023 Prove Out Complete: Jun 2023 | | | | | | |
| B. Equipment Cost | - | - | 2.760 | - | 2.760 | | | | | | | |
| C. Equipment Installation Cost | - | - | 0.690 | - | 0.690 | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | 0.550 | - | 0.550 | | | | | | | |
| Total Project Cost | - | - | 4.000 | - | 4.000 | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$4.000 million supports the modernization and automation of the Saw Cell at the Scranton Army Ammunition Plant. All steel entering the facility must be cut into appropriately sized billets to begin the production process. This effort will modernize and automate the second Saw Cell at the facility. This effort will increase production flexibility and improve worker safety.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Infrastructure & Equipment Efforts **Project Number:** 5XX5150 **Project Category:**

End Item Supported Model: 155MM munitions, artillery **Annual Capacity Before / After (1-8-5):** /

| Cost Elements (\$ in Millions) | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|------------------------------------|--------------|----------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | 3.590 | - | 1.150 | - | 1.150 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Mar 2021 / May 2022 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | 0.800 | - | 0.800 | | | | | | | |
| Total Project Cost | 3.590 | - | 1.950 | - | 1.950 | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$1.950 million supports facilities maintenance, infrastructure, machinery, and equipment modernization efforts at Scranton Army Ammunition Plant. Effort will fund preventive, scheduled and unscheduled maintenance of production equipment and facilities that would prevent serious injury to personnel or effects to the environment.

FY20 phase was included in FY20 NDAA.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Artillery Prod Line Mod **Project Number:** 5225180 **Project Category:**

End Item Supported Model: M1128, M1113 **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Mar 2022 Construction Complete: Equipment Installation Complete: Oct 2023 Prove Out Begins: Oct 2023 Prove Out Complete: Dec 2023 | | | | | | |
| B. Equipment Cost | - | - | 12.560 | - | 12.560 | | | | | | | |
| C. Equipment Installation Cost | - | - | 4.440 | - | 4.440 | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | - | 17.000 | - | 17.000 | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$17.000 million support purchase and installation of modern production equipment for metal parts production at the Scranton Army Ammunition Plant. This effort will primarily focus on increasing finish turning capacity, increasing ultrasonic testing capacity and adding welded nickel rotating band capability. Completion of this effort will add a full rate M1128 metal parts production capability at the facility as well as supporting the M1113.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | |
|---|----------------|----------------|---------------------|--------------------|----------------------|--|--------------|--------------------------|---------------------|---------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | |
| Project Title: Steam & Water Piping Mod Upgrades | | | | | | Project Number: 5225181 | | Project Category: | | | | |
| End Item Supported Model: M1128, M1113 | | | | | | Annual Capacity Before / After (1-8-5): / | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
| A. Construction Cost | - | - | 0.500 | - | 0.500 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Mar 2022 Construction Complete: Apr 2023 Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | - | 0.500 | - | 0.500 | | | | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:

FY 2022 Base procurement dollars in the amount of \$0.500 million supports modernization upgrades to process steam and water piping at the Scranton Army Ammunition Plant. Process steam and water is provided throughout the facility in a number of production processes. The existing infrastructure is failing and upgrades are required to ensure reliable supply and robust production process. This effort will replace leaking and deteriorated steam and water piping along with replacing or adding necessary valves throughout the facility.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: A2 Forge Shop Shot Blast Replacement **Project Number:** 5225182 **Project Category:**

End Item Supported Model: M1128, M1113 **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | 0.760 | - | 0.760 | | | | | | | |
| C. Equipment Installation Cost | - | - | 0.190 | - | 0.190 | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | 0.050 | - | 0.050 | | | | | | | |
| Total Project Cost | - | - | 1.000 | - | 1.000 | | | | | | | |
| Related Projects | | | | | | | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$1.000 million supports modernization of the A2 Shot Blast System in the Forge Shop at the Scranton Army Ammunition Plant. This system is a critical step in manufacturing a metal part with an as forged cavity. The A2 Shot Blast System at the facility is approaching the end of its useful life and requires replacement or modernization that will be completed by this effort.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: M795 Pangborn Shot Blast Replacement **Project Number:** 5225183 **Project Category:**

End Item Supported Model: 155mm munitions, Artillery **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO | | | | |
|--|-----------------------|--------------|----------------------|---------------------|------------------|--|-------------------|--|--|--|
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Mar 2022 Construction Complete: Equipment Installation Complete: Apr 2023 Prove Out Begins: May 2023 Prove Out Complete: Jun 2023 | | | | |
| B. Equipment Cost | - | - | 2.320 | - | 2.320 | | | | | |
| C. Equipment Installation Cost | - | - | 0.580 | - | 0.580 | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | |
| H. Other Costs | - | - | 0.100 | - | 0.100 | | | | | |
| Total Project Cost | - | - | 3.000 | - | 3.000 | | | | | |
| Related Projects | | | | | | | | | | |
| | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date | | | |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$3.000 million supports modernization of the Pangborn Shot Blast System at the Scranton Army Ammunition Plant. This system is a critical step in manufacturing a metal part with an as forged cavity. The Pangborn Shot Blast System at the facility is approaching the end of its useful life and requires replacement or modernization that will be completed by this effort.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Planning & Design in Support of Provision of Industrial Facilities **Project Number:** 5XX0000 **Project Category:**

End Item Supported Model: Multiple **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Various Army Ammunition Plants Facility Location: Various Army Ammunition Plants Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Dec 2021 / Mar 2022 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | 95.385 | 65.624 | 67.985 | - | 67.985 | Related Projects | | | | | | |
| Total Project Cost | 95.385 | 65.624 | 67.985 | - | 67.985 | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$67.985 million supports various engineering studies, analysis, preliminary and final designs in support of the Army Ammunition Plants at Holston, Iowa, Lake City, Radford, Scranton, QCCCF, and Milan.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | |
|---|----------------|----------------|---------------------|--------------------|----------------------|--|--------------|--------------------------|---------------------|---------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | |
| Project Title: Quality of Work Environment Upgrades | | | | | | Project Number: 5225405 | | Project Category: | | | | |
| End Item Supported Model: | | | | | | Annual Capacity Before / After (1-8-5): / | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Various Army Ammunition Plants Facility Location: Various Army Ammunition Plants Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
| A. Construction Cost | - | - | 4.000 | - | 4.000 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Apr 2022 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | - | 4.000 | - | 4.000 | | | | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:

FY 2022 Base procurement dollars in the amount of \$4.000 million supports quality of work environment upgrades to munition production lines at various Army Ammunition Plants (AAPs.) The AAPs, to include Holston, Lake City, Radford, Iowa, and Scranton, were constructed in the 1940s. While various modernization initiatives have upgrade antiquated production lines, the Plants continue to lack modernized support facilities. This effort will fund quality of work environment upgrades for production operations personnel.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Major Maintenance at GOCO AAPs **Project Number:** 5225406 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Various Army Ammunition Plants Facility Location: Various Army Ammunition Plants Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | 2.000 | - | 2.000 | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Mar 2022 / Jun 2022 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | 6.900 | - | 6.900 | | | | | | | |
| Total Project Cost | - | - | 8.900 | - | 8.900 | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$8.900 million support major maintenance upgrades at various Army Ammunition Plants (AAPs), to include Holston, Lake City, Radford, Iowa, and Scranton. The major maintenance upgrades include, but are not limited to, repair of storage tanks to remediate environmental hazardous, replacement of deteriorated roofs to ensure production equipment is not damaged, repair of infrastructure to maintain safe egress of ammunition and munitions components. Additionally, project will replace outdated equipment and support replacement and upgrade of existing industrial operations information technology and operational technology systems at various AAPs.

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| Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | | | | | |
|---|----------------|----------------|---------------------|--|----------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities | | | | | | | | |
| Project Title: Lightweight Ammunition Manufacturing | | | | Project Number: 5215407 | | Project Category: | | | | | | |
| End Item Supported Model: | | | | | | Annual Capacity Before / After (1-8-5): / | | | | | | |
| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Various Army Ammunition Plants Facility Location: Various Army Ammunition Plants Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Jan 2022 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | 8.000 | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | - | - | - | - | | | | | | | |
| Total Project Cost | - | 8.000 | - | - | - | | | | | | | |
| | | | | | | Related Projects | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:

Procurement dollars in the amount of \$8.000 million support facilitization for advance lightweight ammunition manufacturing at Lake City Army Ammunition Plant and/or commercial facilities. Effort will assess emerging technologies and purchase equipment to support unique requirements of polymer cased ammunition manufacturing.

Funding supported by \$8.000 million Congressional Add.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Safety and Environmental Upgrades **Project Number:** 5215408 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Various Army Ammunition Plants Facility Location: Various Army Ammunition Plants Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|-------------------------|-----------|------------------------|--------|------------|------------|
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Jul 2021 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | - | 84.000 | - | - | - | | | | | | | |
| Total Project Cost | - | 84.000 | - | - | - | | | | | | | |
| | | | | | | | Related Projects | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value <i>(\$ M)</i> | Facing | Start Date | Compl Date |

Narrative Explanation:

Procurement dollars in the amount of \$84.000 million support safety and environmental upgrades, unplanned and emergent requirements, at Holston, Iowa, Lake City, Radford, and Scranton Army Ammunition Plants (AAPs). Projects will address production and infrastructure deficiencies across the AAPs. Efforts include replacement, repair, and demolition of deteriorated, unsafe facilities, infrastructure and equipment. Efforts also include cyber security, replacement, repair, and demolition of deteriorated, unsafe facilities, infrastructure and equipment. Projects will maintain production continuity of propellants, explosives and small caliber ammunition. These items support the DOD Joint Warfighter tactical and reserve munitions requirements.

Funding supported by \$84.000 million Congressional Add.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Replace Test Instrumentation in Production Acceptance Testing (Ammunition) **Project Number:** 5225060 **Project Category:**

End Item Supported Model: Initial Production Acceptance & Product Improvements for Ammunition **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Yuma Proving Ground / Aberdeen Test Center Facility Location: Yuma, Arizona / Aberdeen, Maryland Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|--|-------|-----------|--------------|--------|------------|--------------|
| | | | | | | Principal Milestones | | | | | | Month & Year |
| A. Construction Cost | - | - | - | - | - | Concept Design Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | Final Design Complete: | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | Initial/Final Project Award: | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | Construction Complete: | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | Equipment Installation Complete: | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | Prove Out Begins: | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | Prove Out Complete: | | | | | | |
| H. Other Costs | - | - | 0.161 | - | 0.161 | Related Projects | | | | | | |
| Total Project Cost | - | - | 0.161 | - | 0.161 | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$0.161 million continues to support test mission activities at Aberdeen Test Center (ATC) and Yuma Test Center (YTC).
 Supports the procurement of ammunition/weapons components including gun mounts, gun tubes, breech assemblies, and other main weapon system components. These components are required to support proof and acceptance testing at ATC and Yuma Test Center YTC. Without these components, the Army will be unable to conduct the testing required to accept ammunition end items into its inventory and to mitigate operational risk due to ammunition shortfalls across the Army.
 At ATC, continues replacement and procurement for Weapon and Weapon Components which have experienced wear and tear during repetitive testing of production ammunition items. Typical purchases include: rifle/carbine/machine gun barrels, receivers, and parts; large caliber barrels; small and medium caliber Mann-type test barrels, mortar barrels and bipod/baseplates. Timely replacement of worn or unserviceable weapons/components will permit test execution without delays for acquisition of supporting equipment.
 At YTC, procures Ammo Components to continue support Production Acceptance Test (PAT) of artillery and mortar ammunition components at YTC throughout the year. Also procures replacement parts for large and small caliber direct fire weapon systems for production based support, which will improve weapon reliability and reduce potential testing downtime if sudden repairs are needed.
 This project increases test efficiencies and decreases costs and risks to Army Program Managers.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Maintenance of Inactive Facilities **Project Number:** 5XX4073 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Maintenance of Inactive Facilities Facility Location: Various AAPs Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|----------------------|---------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Dec 2021 / Apr 2022 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | 1.355 | 5.195 | 5.109 | - | 5.109 | Related Projects | | | | | | |
| Total Project Cost | 1.355 | 5.195 | 5.109 | - | 5.109 | | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount \$5.109 million supports the care and maintenance of laid-away equipment and facilities at active and inactive ammunition installations.

 FY20 program costs were updated to reflect actuals for this production facilities maintenance effort which supports active and inactive ammunition installations.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 **P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities

Project Title: Layaway Of Industrial Facilities **Project Number:** 5XX8000 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5): /**

| Cost Elements <i>(\$ in Millions)</i> | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | Facility Name: Layaway Of Industrial Facilities Facility Location: Various AAPs Facility Type (GOGO, GOCO, COCO): GOCO | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---|--------------|----------------------|-------------------------|---------------|-------------------|-------------------|
| A. Construction Cost | - | - | - | - | - | Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Nov 2020 / May 2022 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: | | | | | | |
| B. Equipment Cost | - | - | - | - | - | | | | | | | |
| C. Equipment Installation Cost | - | - | - | - | - | | | | | | | |
| D. Contractor Support Cost | - | - | - | - | - | | | | | | | |
| E. Corps of Engineers Support Cost | - | - | - | - | - | | | | | | | |
| F. Other In-House Support Cost | - | - | - | - | - | | | | | | | |
| G. Total Facility Project Cost | - | - | - | - | - | | | | | | | |
| H. Other Costs | 5.213 | 10.105 | 10.035 | - | 10.035 | Related Projects | | | | | | |
| Total Project Cost | 5.213 | 10.105 | 10.035 | - | 10.035 | | | | | | | |
| | | | | | | Project Number | Title | FY & Appn | Value (\$ M) | Facing | Start Date | Compl Date |

Narrative Explanation:
 FY 2022 Base procurement dollars in the amount of \$10.035 million supports the protection and preservation of industrial facilities at active and inactive Army ammunition installations and equipment that are no longer required for current production but must be retained for future peacetime or emergency production needs. Funds support the decontamination and demolition of excess production equipment and facilities buildings at Holston, Iowa, Lake City, Milan, Radford, and Scranton Army Ammunition Plants, Pine Bluff Arsenal, and Quad City Cartridge Case Facility.

FY20 program costs were updated to reflect actuals for this layaway and decontamination/demolition effort.

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| | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit P-40, Budget Line Item Justification: PB 2022 Army | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support | | | | | | | P-1 Line Item Number / Title: 4099EP1700 / Conventional Munitions Demilitarization | | | | | |

| | | | | | | | | | | | | |
|--|--|--|---|--|--|--|--|--|--|--|--|--|
| ID Code (A=Service Ready, B=Not Service Ready): | | | Program Elements for Code B Items: N/A | | | | | Other Related Program Elements: N/A | | | | |
|--|--|--|---|--|--|--|--|--|--|--|--|--|

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|---|------------------|----------------|----------------|----------------|-------------|----------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (<i>Units in Each</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (<i>\$ in Millions</i>) | 3,349.213 | 202.512 | 188.092 | 139.410 | - | 139.410 | - | - | - | - | - | - |
| Less PY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (<i>\$ in Millions</i>) | 3,349.213 | 202.512 | 188.092 | 139.410 | - | 139.410 | - | - | - | - | - | - |
| Plus CY Advance Procurement (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (<i>\$ in Millions</i>) | 3,349.213 | 202.512 | 188.092 | 139.410 | - | 139.410 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (<i>\$ in Millions</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Conventional Munitions Demilitarization Program provides for the demilitarization (demil) and disposal of conventional ammunition and missiles that are unserviceable, obsolete, or excess to need for all Military Services per Department of Defense (DoD) Directive 5160.65 and DoD Instruction 5160.68. The program accomplishes demil using open burning/open detonation (OB/OD) processes or closed disposal technologies (CDT) with primary emphasis on resource recovery and recycling (R3). This program also provides for operations, technical support and services; packaging, crating, handling, and transportation (PCHT) of ammunition for demil projects at United States Army depots, plants and activities; commercial contracts that provide closed disposal technologies demil support and services and associated packaging, crating, handling, and transportation; and international operations, which include the European and Pacific Theaters.

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Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support **P-1 Line Item Number / Title:** 4099EP1700 / Conventional Munitions Demilitarization

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Exhibits Schedule | | | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
|-------------------|--|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type | Title* | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5 | EP1800 / Conventional Ammunition Demilitarization (SMCA) | | | | - / 2,758.948 | - / 139.029 | - / 146.969 | - / 92.736 | - / - | - / 92.736 |
| P-5 | EP1801 / Other Non-Army Service Demil Items (non-SMCA) | | | | - / 58.644 | - / 29.712 | - / 14.589 | - / 15.391 | - / - | - / 15.391 |
| P-5 | EP1802 / Army Missile Demilitarization | | | | - / 492.724 | - / 28.984 | - / 20.684 | - / 16.524 | - / - | - / 16.524 |
| P-5 | EP1803 / Non-Army Missile Demilitarization | | | | - / 38.897 | - / 4.787 | - / 5.850 | - / 14.759 | - / - | - / 14.759 |
| P-40 | Total Gross/Weapon System Cost | | | | - / 3,349.213 | - / 202.512 | - / 188.092 | - / 139.410 | - / - | - / 139.410 |

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2022 Base procurement dollars in the amount of \$139.410 million will support the demilitarization of conventional ammunition as well as missile and missile components (msl/comp) for all Military Services including transport of the munitions to their final disposition sites.

FY 2022 funds will support the United States the demilitarization and disposition of 35,000 tons of conventional ammunition and an additional 7,175 tons of missiles and missile components. The work is to be accomplished in both Continental United States (CONUS) and Outside the Continental United States (OCONUS). CONUS demil operations are performed by a combination of Government Owned, Government Operated (GOGO) depots, Government Owned, Contractor Operated (GOCO) depots as well as commercial contractors. OCONUS demil operations are performed at Demilitarization Facilities in Japan as well as commercial contractors in the European Union. Cost increases in the various categories of the P-5 Cost Analysis Forms reflect increases in quantities and tonnage of munitions being destroyed within those cost categories, except for transportation which reflects greater quantities of munitions being redistributed to sites having the ability to demilitarize and dispose them.

As of March 2021, the Single Manager for Conventional Ammunition (SMCA) Resource, Recovery and Disposition Account (B5A) contained 378,704 tons of ammunition in storage: 342,791 tons of conventional ammunition and 35,913 tons of msl/comp. Reduction of the B5A account provides for more economical storage and distribution of ammunition for operational and training and improves military readiness.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | P-1 Line Item Number / Title: 4099EP1700 / Conventional Munitions Demilitarization | | | Item Number / Title [DODIC]: EP1800 / Conventional Ammunition Demilitarization (SMCA) | | |
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | | | MDAP/MAIS Code: | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 2,758.948 | 139.029 | 146.969 | 92.736 | - | 92.736 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 2,758.948 | 139.029 | 146.969 | 92.736 | - | 92.736 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 2,758.948 | 139.029 | 146.969 | 92.736 | - | 92.736 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|---|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Support - Demilitarization Cost | | | | | | | | | | | | | | | | | | |
| WHITE PHOSPHORUS | - | - | 92.566 | - | - | 6.492 | - | - | 6.833 | - | - | - | - | - | - | - | - | - |
| DEMOLITION MATERIAL | - | - | 2.551 | - | - | - | - | - | 1.147 | - | - | - | - | - | - | - | - | - |
| HE DETONATORS/ BOOSTERS | - | - | 3.194 | - | - | 1.847 | - | - | 2.773 | - | - | - | - | - | - | - | - | - |
| HE BOMBS | - | - | 47.670 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| HE CARTRIDGES | - | - | 166.539 | - | - | 8.524 | - | - | 3.283 | - | - | - | - | - | - | - | - | - |
| GRENADES | - | - | 3.529 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| HE DEPTH CHARGES | - | - | 17.572 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| CLUSTER BOMBS/ ICM; ANTI-TANK & PERSONNEL | - | - | 355.713 | - | - | 11.287 | - | - | 22.880 | - | - | 23.929 | - | - | - | - | - | 23.929 |
| HE LAND MINES | - | - | 87.698 | - | - | 2.619 | - | - | - | - | - | - | - | - | - | - | - | - |
| INERT | - | - | 38.264 | - | - | 0.701 | - | - | 2.577 | - | - | 0.240 | - | - | - | - | - | 0.240 |
| MULTIPLE FAMILY | - | - | 507.888 | - | - | 3.382 | - | - | 2.716 | - | - | 7.328 | - | - | - | - | - | 7.328 |
| BULK HIGH EXPLOSIVES | - | - | 90.249 | - | - | 33.520 | - | - | 3.411 | - | - | - | - | - | - | - | - | - |
| PROPELLANT CHARGES/INCREMENT CHARGES | - | - | 141.224 | - | - | 8.546 | - | - | 2.103 | - | - | 8.097 | - | - | - | - | - | 8.097 |
| TARGET PRACTICES/ 40MM ANTI-AIRCRAFT | - | - | 44.414 | - | - | 6.821 | - | - | 5.461 | - | - | 0.609 | - | - | - | - | - | 0.609 |
| SMALL ARMS AMMO THRU 20MM | - | - | 29.768 | - | - | 2.269 | - | - | 6.693 | - | - | 6.878 | - | - | - | - | - | 6.878 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | | | P-1 Line Item Number / Title: 4099EP1700 / Conventional Munitions Demilitarization | | | | | | Item Number / Title [DODIC]: EP1800 / Conventional Ammunition Demilitarization (SMCA) | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| INCINERABLE MUNITIONS/ MISCELLANEOUS | - | - | 68.826 | - | - | 6.228 | - | - | 10.458 | - | - | - | - | - | - | - | - | - |
| FUZES | - | - | 51.754 | - | - | 1.053 | - | - | 2.538 | - | - | 2.333 | - | - | - | - | - | 2.333 |
| TRANSPORTATION | - | - | 175.506 | - | - | 17.108 | - | - | 8.314 | - | - | 9.095 | - | - | - | - | - | 9.095 |
| MUNITIONS CHARACTERIZATION | - | - | 85.465 | - | - | 3.575 | - | - | 4.425 | - | - | 1.000 | - | - | - | - | - | 1.000 |
| OCONUS DEMIL - EUCOM | - | - | 46.764 | - | - | 1.471 | - | - | 0.580 | - | - | 0.450 | - | - | - | - | - | 0.450 |
| OCONUS DEMIL - PACOM | - | - | 10.566 | - | - | 0.814 | - | - | 0.220 | - | - | 0.300 | - | - | - | - | - | 0.300 |
| CONTRACT - CONUS DEMIL | - | - | 626.110 | - | - | 20.874 | - | - | 34.913 | - | - | 20.543 | - | - | - | - | - | 20.543 |
| DU Cartridges | - | - | 15.938 | - | - | 1.249 | - | - | 25.461 | - | - | 8.534 | - | - | - | - | - | 8.534 |
| <i>Subtotal: Support - Demilitarization Cost</i> | - | - | 2,709.768 | - | - | 138.380 | - | - | 146.786 | - | - | 89.336 | - | - | - | - | - | 89.336 |
| Support - Program Management Cost | | | | | | | | | | | | | | | | | | |
| Government Management | - | - | 49.180 | - | - | 0.649 | - | - | 0.183 | - | - | 3.400 | - | - | - | - | - | 3.400 |
| <i>Subtotal: Support - Program Management Cost</i> | - | - | 49.180 | - | - | 0.649 | - | - | 0.183 | - | - | 3.400 | - | - | - | - | - | 3.400 |
| Gross/Weapon System Cost | - | - | 2,758.948 | - | - | 139.029 | - | - | 146.969 | - | - | 92.736 | - | - | - | - | - | 92.736 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | P-1 Line Item Number / Title: 4099EP1700 / Conventional Munitions Demilitarization | Item Number / Title [DODIC]: EP1801 / Other Non-Army Service Demil Items (non-SMCA) |

| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|---------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 58.644 | 29.712 | 14.589 | 15.391 | - | 15.391 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 58.644 | 29.712 | 14.589 | 15.391 | - | 15.391 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 58.644 | 29.712 | 14.589 | 15.391 | - | 15.391 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Support - Demilitarization Cost | | | | | | | | | | | | | | | | | | |
| TORPEDOES | - | - | 41.644 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| SONOBUOYS | - | - | 2.404 | - | - | - | - | - | 1.250 | - | - | - | - | - | - | - | - | - |
| CONTRACT - CONUS DEMIL | - | - | 11.252 | - | - | 4.238 | - | - | 6.245 | - | - | 6.245 | - | - | - | - | - | 6.245 |
| TRANSPORTATION | - | - | 2.412 | - | - | - | - | - | 1.660 | - | - | 1.055 | - | - | - | - | - | 1.055 |
| INCINERABLE MUNITIONS/ MISCELLANEOUS | - | - | 0.932 | - | - | 0.538 | - | - | - | - | - | - | - | - | - | - | - | - |
| HE BOMBS | - | - | - | - | - | - | - | - | 2.477 | - | - | 5.491 | - | - | - | - | - | 5.491 |
| CLUSTER BOMBS/ ICM; ANTI-TANK & PERSONNEL | - | - | - | - | - | 9.382 | - | - | 2.957 | - | - | 2.600 | - | - | - | - | - | 2.600 |
| DU Cartridges | - | - | - | - | - | 15.554 | - | - | - | - | - | - | - | - | - | - | - | - |
| <i>Subtotal: Support - Demilitarization Cost</i> | - | - | 58.644 | - | - | 29.712 | - | - | 14.589 | - | - | 15.391 | - | - | - | - | - | 15.391 |
| Gross/Weapon System Cost | - | - | 58.644 | - | - | 29.712 | - | - | 14.589 | - | - | 15.391 | - | - | - | - | - | 15.391 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | Date: May 2021 | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | P-1 Line Item Number / Title: 4099EP1700 / Conventional Munitions Demilitarization | | | Item Number / Title [DODIC]: EP1802 / Army Missile Demilitarization | | |
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | | |
| Resource Summary | | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | | 492.724 | 28.984 | 20.684 | 16.524 | - | 16.524 |
| Less PY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | | 492.724 | 28.984 | 20.684 | 16.524 | - | 16.524 |
| Plus CY Advance Procurement (\$ in Millions) | | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | | 492.724 | 28.984 | 20.684 | 16.524 | - | 16.524 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | | |
| Initial Spares (\$ in Millions) | | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Support - Demilitarization Cost | | | | | | | | | | | | | | | | | | |
| MULTIPLE LAUNCH ROCKET SYSTEM | - | - | 231.027 | - | - | 5.975 | - | - | 8.562 | - | - | 3.243 | - | - | - | - | - | 3.243 |
| ROCKET MOTORS | - | - | 3.815 | - | - | 1.853 | - | - | 3.207 | - | - | 1.850 | - | - | - | - | - | 1.850 |
| TOW CD/R3 | - | - | 41.843 | - | - | - | - | - | - | - | - | 0.194 | - | - | - | - | - | 0.194 |
| HELLFIRE | - | - | 0.580 | - | - | 0.040 | - | - | - | - | - | 0.032 | - | - | - | - | - | 0.032 |
| STINGER | - | - | 2.596 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PATRIOT | - | - | 1.826 | - | - | 0.850 | - | - | 0.250 | - | - | 1.020 | - | - | - | - | - | 1.020 |
| HONEST JOHN | - | - | 1.476 | - | - | - | - | - | 0.240 | - | - | 0.225 | - | - | - | - | - | 0.225 |
| MISSILE COMPONENTS | - | - | 68.162 | - | - | 2.453 | - | - | 1.026 | - | - | 1.040 | - | - | - | - | - | 1.040 |
| HAWK MOTORS | - | - | 3.397 | - | - | 0.869 | - | - | - | - | - | 0.302 | - | - | - | - | - | 0.302 |
| DEMIL PROCESS IMPROVEMENTS | - | - | 86.254 | - | - | 5.815 | - | - | 3.000 | - | - | 2.246 | - | - | - | - | - | 2.246 |
| TRANSPORTATION | - | - | 18.934 | - | - | 5.151 | - | - | 1.313 | - | - | 1.800 | - | - | - | - | - | 1.800 |
| MULTIPLE FAMILY | - | - | - | - | - | 3.113 | - | - | 0.284 | - | - | - | - | - | - | - | - | - |
| CONTRACT - CONUS DEMIL | - | - | - | - | - | - | - | - | - | - | - | 2.200 | - | - | - | - | - | 2.200 |
| Subtotal: Support - Demilitarization Cost | - | - | 459.910 | - | - | 26.119 | - | - | 17.882 | - | - | 14.152 | - | - | - | - | - | 14.152 |
| Support - Program Management Cost | | | | | | | | | | | | | | | | | | |
| Government Management | - | - | 32.814 | - | - | 2.865 | - | - | 2.802 | - | - | 2.372 | - | - | - | - | - | 2.372 |
| Subtotal: Support - Program Management Cost | - | - | 32.814 | - | - | 2.865 | - | - | 2.802 | - | - | 2.372 | - | - | - | - | - | 2.372 |

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | | | | | | | | | | | Date: May 2021 | | | | | |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | | | | | | P-1 Line Item Number / Title: 4099EP1700 / Conventional Munitions Demilitarization | | | | | | Item Number / Title [DODIC]: EP1802 / Army Missile Demilitarization | | | | | |
| ID Code (A=Service Ready, B=Not Service Ready) : | | | | | | | | | | | | MDAP/MAIS Code: | | | | | |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--------------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Gross/Weapon System Cost | - | - | 492.724 | - | - | 28.984 | - | - | 20.684 | - | - | 16.524 | - | - | - | - | - | 16.524 |

Remarks:

In FY 2022, funding in the amount of \$0.225 million for manpower was realigned to Operations and Maintenance. Program costs have been accurately updated to reflect the realignments. Funds requested will support demil of Army Missile and Missile components to include MLRS, Patriot and Stinger, in addition to demil of Obsolete Systems' Missiles and components, to include HAWK and others.

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| Exhibit P-5, Cost Analysis: PB 2022 Army | | Date: May 2021 |
| Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10 | P-1 Line Item Number / Title: 4099EP1700 / Conventional Munitions Demilitarization | Item Number / Title [DODIC]: EP1803 / Non-Army Missile Demilitarization |

| ID Code (A=Service Ready, B=Not Service Ready) : | | | | MDAP/MAIS Code: | | | |
|---|--|---------------|--------------|------------------------|---------------|-------------|---------------|
| Resource Summary | | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total |
| Procurement Quantity (Units in Each) | | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | | 38.897 | 4.787 | 5.850 | 14.759 | - | 14.759 |
| Less PY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | | 38.897 | 4.787 | 5.850 | 14.759 | - | 14.759 |
| Plus CY Advance Procurement (\$ in Millions) | | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | | 38.897 | 4.787 | 5.850 | 14.759 | - | 14.759 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> | | | | | | | |
| Initial Spares (\$ in Millions) | | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | | - | - | - | - | - | - |

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements | Prior Years | | | FY 2020 | | | FY 2021 | | | FY 2022 Base | | | FY 2022 OCO | | | FY 2022 Total | | |
|--|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Support - Demilitarization Cost | | | | | | | | | | | | | | | | | | |
| HE MISSILES | - | - | 37.552 | - | - | 2.454 | - | - | - | - | - | 6.114 | - | - | - | - | - | 6.114 |
| ROCKET MOTORS | - | - | 0.750 | - | - | 1.050 | - | - | 2.600 | - | - | 2.868 | - | - | - | - | - | 2.868 |
| MISSILE COMPONENTS | - | - | 0.595 | - | - | 1.283 | - | - | 0.192 | - | - | 2.253 | - | - | - | - | - | 2.253 |
| Demilitarization | - | - | - | - | - | - | - | - | 0.416 | - | - | - | - | - | - | - | - | - |
| Maverick Missile | - | - | - | - | - | - | - | - | 2.642 | - | - | 0.389 | - | - | - | - | - | 0.389 |
| Tomahawk | - | - | - | - | - | - | - | - | - | - | - | 2.135 | - | - | - | - | - | 2.135 |
| CONTRACT - CONUS DEMIL | - | - | - | - | - | - | - | - | - | - | - | 1.000 | - | - | - | - | - | 1.000 |
| <i>Subtotal: Support - Demilitarization Cost</i> | - | - | 38.897 | - | - | 4.787 | - | - | 5.850 | - | - | 14.759 | - | - | - | - | - | 14.759 |
| Gross/Weapon System Cost | - | - | 38.897 | - | - | 4.787 | - | - | 5.850 | - | - | 14.759 | - | - | - | - | - | 14.759 |

Remarks:

Funds requested will support Demil of missile and missile components to include Tomahawk, Standard, Sidewinder and Sparrow and others. In addition, funds will support Demil of Obsolete Systems' Missiles (OSM) Rocket motors utilizing the Ammonium Perchlorate Rocket Motor Destruction (ARMD) capability at Letterkenney Munitions Center (LEMC).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2022 Army **Date:** May 2021

Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support **P-1 Line Item Number / Title:** 4150EP2500 / ARMS Initiative

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

| Resource Summary | Prior Years | FY 2020 | FY 2021 | FY 2022 Base | FY 2022 OCO | FY 2022 Total | FY 2023 | FY 2024 | FY 2025 | FY 2026 | To Complete | Total |
|--|----------------|--------------|--------------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity (Units in Each) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Cost (\$ in Millions) | 366.643 | 3.833 | 3.369 | 3.178 | - | 3.178 | - | - | - | - | - | - |
| Less PY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Procurement (P-1) (\$ in Millions) | 366.643 | 3.833 | 3.369 | 3.178 | - | 3.178 | - | - | - | - | - | - |
| Plus CY Advance Procurement (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Obligation Authority (\$ in Millions) | 366.643 | 3.833 | 3.369 | 3.178 | - | 3.178 | - | - | - | - | - | - |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares (\$ in Millions) | - | - | - | - | - | - | - | - | - | - | - | - |
| Flyaway Unit Cost (\$ in Dollars) | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost (\$ in Dollars) | - | - | - | - | - | - | - | - | - | - | - | - |

Description:

The Armament Retooling and Manufacturing Support (ARMS) program reuses idle capacity at active and inactive Government-Owned, Contractor-Operated (GOCO) Army Ammunition Plants and the GOCO Hawthorne Army Depot through commercialization. Congress enacted this program in the FY 1993 Defense Authorization Act (Public Law (PL) 102-484) and codified in FY 2000 (10 U.S.C. 7551-7555). ARMS resources are used for facility strategic reuse plans, marketing plans, building renovation and recapitalization, equipment purchase, relocation, or consolidation, as well as environmental baseline studies and site surveys to encourage commercial use of underutilized Army assets. The ARMS objectives include sustaining critical manufacturing capabilities and critical skills; reducing facility operating and maintenance costs; decreasing product cost; providing opportunities for small business; and accelerating private sector economic development, employment and investment. The ARMS program allows the Army to manage portions of the ammunition infrastructure as a commercial business. This management concept has allowed the Army to apply overhead costs across multiple commercial contracts to reduce operating costs.

Justification:

FY 2022 Base procurement dollars in the amount of \$3.178 million supports financial and marketing investments to attract revenue-producing tenants to locate on Government-Owned Contractor-Operated (GOCO) Army Ammunition Plants and the GOCO Hawthorne Army Depot. The ARMS program reduces Army cost of ownership and maintains critical munitions industrial base skills. Revenues collected will be utilized to reduce overhead and total annual operating costs, improve and maintain existing buildings for current tenants, and perform improvements to other vacant buildings to entice potential tenants.