Department of Defense
Fiscal Year (FY) 2023 Budget Estimates

April 2022

Army

Justification Book of

Procurement of Ammunition, Army

Table of Contents

Introduction and Explanation of Contents ii

Comptroller Exhibit P-1 iv

Line Item Table of Contents (by Appropriation then Line Number) viii

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

Exhibit P-40s 1

Cost Statement

The following Justification Books were prepared at a cost of $474,495.00: 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, equipment, spare parts 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, $2,639,051,000 in fiscal year 2023 to remain available for obligation until September 30, 2025.

The Fiscal Year (FY) 2023 Overseas Operations Costs funding accounted for in the Base budget include:

Combat or direct combat support expenses that discontinue once combat operations end at major contingency locations $96,828,000.

In-theater and in-CONUS expenses that remain after combat operations cease and have been previously funded in OCO $37,546,000.

Department of the Army
FY 2023 President's Budget
Exhibit P-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Apr 2022

Appropriation: **Procurement of Ammunition, Army**

Budget Activity	FY 2021 (Base + OCO)	FY 2022 Enactment	FY 2023 Request
01. Ammunition	1,953,664	1,552,959	2,054,429
02. Ammunition Production Base Support	875,685	723,708	584,622
Total Procurement of Ammunition, Army	**2,829,349**	**2,276,667**	**2,639,051**

Department of the Army
FY 2023 President's Budget
Exhibit P-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Apr 2022

Appropriation: 2034A Procurement of Ammunition, Army

Line No	Item Nomenclature	Ident Code	FY 2021 (Base + OCO) Quantity	FY 2021 (Base + OCO) Cost	FY 2022 Enactment Quantity	FY 2022 Enactment Cost	FY 2023 Request Quantity	FY 2023 Request Cost	Sec
Budget Activity 01: Ammunition									
Small/Medium Cal Ammunition									
1	CTG, 5.56MM, All Types	A		63,970		65,490		59,447	U
2	CTG, 7.62MM, All Types	A		103,343		101,926		90,019	U
3	NEXT GENERATION SQUAD WEAPON AMMUNITION	A		14,386		71,234		128,662	U
4	CTG, Handgun, All Types	A		870		7,812		317	U
5	CTG, .50 Cal, All Types	A		58,116		58,116		35,849	U
6	CTG, 20mm, All Types	A		31,708		4,371		11,761	U
7	CTG, 25mm, All Types	A		9,111				10,270	U
8	CTG, 30mm, All Types	A		30,932		45,450		143,045	U
9	CTG, 40mm, All Types	A		109,934		38,344		85,213	U
Mortar Ammunition									
10	60MM Mortar, All Types			31,222		19,365		33,338	U
11	81MM Mortar, All Types			42,857		42,735		56,577	U
12	120MM Mortar, All Types	A		125,962		90,801		127,168	U
Tank Ammunition									
13	Cartridges, Tank, 105MM And 120MM, All Types	A		231,955		204,003		296,943	U
Artillery Ammunition									
14	Artillery Cartridges, 75MM & 105MM, All Types	A		35,963		26,709		7,647	U
15	ARTILLERY PROJECTILE, 155MM, All Types			283,092		142,582		182,455	U
16	Proj 155mm Extended Range M982	A	646	76,832	374	56,755			U
17	PRECISION ARTILLERY MUNITIONS	A						166,334	U

Department of the Army
FY 2023 President's Budget
Exhibit P-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Apr 2022

Appropriation: 2034A Procurement of Ammunition, Army

Line No	Item Nomenclature	Ident Code	FY 2021 (Base + OCO) Quantity	FY 2021 (Base + OCO) Cost	FY 2022 Enactment Quantity	FY 2022 Enactment Cost	FY 2023 Request Quantity	FY 2023 Request Cost	Sec
18	Artillery Propellants, Fuzes and Primers, All	A		247,011		262,451		143,763	U
	Mines								
19	Mines & Clearing Charges, All Types			48,966		20,980		80,920	U
20	Close Terrain Shaping Obstacle	A		5,994		34,761		53,579	U
	Rockets								
21	Shoulder Launched Munitions, All Types	A		65,113		17,384		18,159	U
22	Rocket, Hydra 70, All Types	A		159,795		117,536		171,697	U
	Other Ammunition								
23	CAD/PAD, All Types	A		8,891		4,597		7,643	U
24	Demolition Munitions, All Types	A		55,896		23,468		29,796	U
25	Grenades, All Types	A		32,931		31,437		36,251	U
26	Signals, All Types	A		27,036		7,530		13,852	U
27	Simulators, All Types	A		9,377		7,350		9,350	U
28	REACTIVE ARMOR TILES	A				17,755			U
	Miscellaneous								
29	Ammo Components, All Types	A		3,476		1,500		3,823	U
30	Items Less Than $5 Million (AMMO)	A		10,580		16,297		19,921	U
31	Ammunition Peculiar Equipment	A		12,338		9,790		13,001	U
32	First Destination Transportation (AMMO)	A		15,908		4,331		17,528	U
33	Closeout Liabilities			99		99		101	U
Total Ammunition				**1,953,664**		**1,552,959**		**2,054,429**	

Department of the Army
FY 2023 President's Budget
Exhibit P-1 FY 2023 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Apr 2022

Appropriation: 2034A Procurement of Ammunition, Army

Line No	Item Nomenclature	Ident Code	FY 2021 (Base + OCO) Quantity	FY 2021 (Base + OCO) Cost	FY 2022 Enactment Quantity	FY 2022 Enactment Cost	FY 2023 Request Quantity	FY 2023 Request Cost	Sec
Budget Activity 02: Ammunition Production Base Support									
Production Base Support									
34	Industrial Facilities			684,224		588,120		499,613	U
35	Conventional Munitions Demilitarization			188,092		132,410		80,970	U
36	ARMS Initiative			3,369		3,178		4,039	U
Total Ammunition Production Base Support				**875,685**		**723,708**		**584,622**	
Total Procurement of Ammunition, Army				**2,829,349**		**2,276,667**		**2,639,051**	

Line Item Table of Contents (by Appropriation then Line Number)

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	1
2	01	30	0612E02000	CTG, 7.62MM, All Types	41
3	01	30	1065E06001	NEXT GENERATION SQUAD WEAPON AMMUNITION	63
4	01	30	1450EA3000	CTG, Handgun, All Types	86
5	01	30	1722E08000	CTG, .50 Cal, All Types	88
6	01	30	2382E08900	CTG, 20mm, All Types	109
7	01	30	2650E08200	CTG, 25mm, All Types	118
8	01	30	2938ER8120	CTG, 30mm, All Types	128
9	01	30	3222ER8001	CTG, 40mm, All Types	172
10	01	33	0050E89600	60MM Mortar, All Types	208
11	01	33	3584E76000	81MM Mortar, All Types	222
12	01	33	6780E25500	120MM Mortar, All Types	247
13	01	35	1120E22203	Cartridges, Tank, 105MM And 120MM, All Types	291
14	01	37	0530E15101	Artillery Cartridges, 75MM & 105MM, All Types	325
15	01	37	3102E89500	ARTILLERY PROJECTILE, 155MM, All Types	331
16	01	37	6600E80100	Proj 155mm Extended Range M982	379

Appropriation 2034A: Procurement of Ammunition, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
17	01	37	6635F90100	PRECISION ARTILLERY MUNITIONS	384
18	01	37	8750E27501	Artillery Propellants, Fuzes and Primers, All	399
19	01	43	0442EA0800	Mines & Clearing Charges, All Types	445
20	01	43	0612E76740	Close Terrain Shaping Obstacle	482
21	01	45	2348EA4000	Shoulder Launched Munitions, All Types	493
22	01	45	3246E37300	Rocket, Hydra 70, All Types	510
23	01	47	2420E61000	CAD/PAD, All Types	526
24	01	47	2790E55400	Demolition Munitions, All Types	533
25	01	47	4582E34000	Grenades, All Types	559
26	01	47	6038E46900	Signals, All Types	599
27	01	47	8278E51200	Simulators, All Types	613
28	01	47	9847E97900	REACTIVE ARMOR TILES	622
29	01	50	0684EB0016	Ammo Components, All Types	624
30	01	50	2624EA0055	Items Less Than $5 Million (AMMO)	625
31	01	50	4370EA0575	Ammunition Peculiar Equipment	640
32	01	50	4758EA0550	First Destination Transportation (AMMO)	644
33	01	50	9615EA8500	Closeout Liabilities	645

Appropriation 2034A: Procurement of Ammunition, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
34	02	10	0572EP1000	Industrial Facilities	646
35	02	10	4099EP1700	Conventional Munitions Demilitarization	707
36	02	10	4150EP2500	ARMS Initiative	715

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

Line Item Title	Line Item Number	Line #	BA	BSA	Page
120MM Mortar, All Types	6780E25500	12	01	33	247
60MM Mortar, All Types	0050E89600	10	01	33	208
81MM Mortar, All Types	3584E76000	11	01	33	222
ARMS Initiative	4150EP2500	36	02	10	715
ARTILLERY PROJECTILE, 155MM, All Types	3102E89500	15	01	37	331
Ammo Components, All Types	0684EB0016	29	01	50	624
Ammunition Peculiar Equipment	4370EA0575	31	01	50	640
Artillery Cartridges, 75MM & 105MM, All Types	0530E15101	14	01	37	325
Artillery Propellants, Fuzes and Primers, All	8750E27501	18	01	37	399
CAD/PAD, All Types	2420E61000	23	01	47	526
CTG, .50 Cal, All Types	1722E08000	5	01	30	88
CTG, 20mm, All Types	2382E08900	6	01	30	109
CTG, 25mm, All Types	2650E08200	7	01	30	118
CTG, 30mm, All Types	2938ER8120	8	01	30	128
CTG, 40mm, All Types	3222ER8001	9	01	30	172
CTG, 5.56MM, All Types	0132E00700	1	01	30	1
CTG, 7.62MM, All Types	0612E02000	2	01	30	41

Line Item Title	Line Item Number	Line #	BA	BSA	Page
CTG, Handgun, All Types	1450EA3000	4	01	30	86
Cartridges, Tank, 105MM And 120MM, All Types	1120E22203	13	01	35	291
Close Terrain Shaping Obstacle	0612E76740	20	01	43	482
Closeout Liabilities	9615EA8500	33	01	50	645
Conventional Munitions Demilitarization	4099EP1700	35	02	10	707
Demolition Munitions, All Types	2790E55400	24	01	47	533
First Destination Transportation (AMMO)	4758EA0550	32	01	50	644
Grenades, All Types	4582E34000	25	01	47	559
Industrial Facilities	0572EP1000	34	02	10	646
Items Less Than $5 Million (AMMO)	2624EA0055	30	01	50	625
Mines & Clearing Charges, All Types	0442EA0800	19	01	43	445
NEXT GENERATION SQUAD WEAPON AMMUNITION	1065E06001	3	01	30	63
PRECISION ARTILLERY MUNITIONS	6635F90100	17	01	37	384
Proj 155mm Extended Range M982	6600E80100	16	01	37	379
REACTIVE ARMOR TILES	9847E97900	28	01	47	622
Rocket, Hydra 70, All Types	3246E37300	22	01	45	510
Shoulder Launched Munitions, All Types	2348EA4000	21	01	45	493
Signals, All Types	6038E46900	26	01	47	599
Simulators, All Types	8278E51200	27	01	47	613

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,999.435	63.970	65.490	59.447	-	59.447	73.750	76.213	85.883	85.889	-	2,510.077
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,999.435	63.970	65.490	59.447	-	59.447	73.750	76.213	85.883	85.889	-	2,510.077
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,999.435**	**63.970**	**65.490**	**59.447**	**-**	**59.447**	**73.750**	**76.213**	**85.883**	**85.889**	**-**	**2,510.077**
(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 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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 transitioned 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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		- / 552.627	- / 8.515	- / 2.615	- / 4.217	- / -	- / 4.217
P-5	E01101 / CTG, 5.56mm Blank, M200 Linked f/SAW [A075]	P-5a	A		- / 220.504	- / 5.940	- / 5.548	- / 4.310	- / -	- / 4.310
P-5	E04607 / CTG, 5.56mm 4 Ball EPR, M855A1 /1 TR M856A1 Linked [AB73]	P-5a, P-21	A		- / 81.592	- / 4.632	- / 3.303	- / 8.340	- / -	- / 8.340
P-5	E04608 / CTG, 5.56mm Tracer, M856A1 Single Round [AB74]		A		- / 9.782	- / 0.869	- / 0.466	- / 0.838	- / -	- / 0.838
P-5	E95200 / CTG, 5.56mm EPR Ball, M855A1 w/M27 Link f/SAW [AB56]		A		- / 31.431	- / 0.510	- / 1.221	- / 1.458	- / -	- / 1.458
P-5	E95400 / CTG, 5.56mm Ball, M855A1 EPR, Clipped Mil Pack [AB57]	P-5a, P-21	A		- / 838.230	- / 6.479	- / 6.606	- / 7.235	- / -	- / 7.235
P-5	E95700 / CTG, 5.56mm Ball, M855A1 Clipped Bulk Pack [AB77]	P-5a, P-21	A		- / 205.224	- / 30.144	- / 41.439	- / 27.944	- / -	- / 27.944
P-5	E96110 / CTG, 5.56mm Marking, M1042 (Blue) [AC39]		A		- / 25.254	- / 1.725	- / 1.261	- / 1.495	- / -	- / 1.495
P-5	E96111 / CTG, 5.56mm Marking, M1042 (Red) [AC40]		A		- / 14.105	- / 1.268	- / 0.645	- / 0.859	- / -	- / 0.859
P-5	E96120 / CTG, 5.56mm Marking, M1071 (Blue) Linked f/SAW [AC42]		A		- / 5.881	- / 0.806	- / 0.049	- / -	- / -	- / -
P-5	E96121 / CTG, 5.56mm Marking, M1071 (Red) Linked f/SAW [AC43]		A		- / 5.189	- / 0.239	- / -	- / 0.116	- / -	- / 0.116
P-5	E96125 / Ctg, 5.56mm, Short Range Training, M1037, sngl rd [AB67]		A		- / 9.092	- / 2.814	- / 2.337	- / 2.635	- / -	- / 2.635
P-40	**Total Gross/Weapon System Cost**				**- / 1,999.435**	**- / 63.970**	**- / 65.490**	**- / 59.447**	**- / -**	**- / 59.447**

*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 2023 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.

The FY 2023 Base Budget supports the Minimum Sustaining Rates at both Lake City Army Ammunition Plant (LCAAP) as well as the Second Source facility in Oxford, MS.

FY 2023 Total Base dollars in the amount of $59.447 million supports the procurement of 118.267 million cartridges.

(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

(E01100) 5.56mm, M200 Blank Cartridge is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $4.217 million support the procurement of 15.667 million M200 Blank Cartridges.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

Type classification date: prior to 1977

(E01101) 5.56mm, M200 Blank Linked F/SAW is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $4.310 million support the procurement of 10.412 million M200 Blank Linked Cartridges.
Type classification date: prior to 1977

(E04607) 5.56mm M855A1 Ball and M856A1 Tracer Cartridges are training standard items used in both training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $8.205 million support the procurement of 12.218 million M855A1 Ball and M856A1 Tracer Cartridges. FY 2023 Base dollars in the amount of $0.135 million support the COCOM requirement for procurement of 0.201 million M855A1 Ball and M856A1 Tracer Cartridges to deter potential adversaries and support European Deterrence Initiative.
Type classification date: 1982

(E04608) 5.56mm M856A1 Tracer Bullet is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $0.394 million support the procurement of 0.468 million M856A1 Tracer cartridges. FY 2023 Base dollars in the amount of $0.444 million support the COCOM requirement for procurement of 0.528 million M856A1 Tracer Bullets to deter potential adversaries and support European Deterrence Initiative.
Type classification date: 1982

(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 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $1.458 million support the procurement of 2.427 million M855A1 Ball Cartridges linked with the M27 link.
Type classification date: 1982

(E95400) 5.56mm, M855A1 Ball Cartridge is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $7.235 million support the procurement of 12.971 million M855A1 Ball Cartridges.
Type classification date: 1982

(E95700) 5.56mm, M855A1 Ball Cartridge is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $27.944 million support the procurement of 58.915 million M855A1 Ball Cartridges.
Type classification date: 1982

(E96110) 5.56mm, Marking, M1042 Blue is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $1.495 million support the procurement of 1.543 million Marking Blue M1042 Cartridges.
Type classification date: May 2009

(E96111) 5.56mm Marking, M1042 Red is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $0.859 million support the procurement of 0.886 million of the Marking Red M1042 Cartridges.
Type classification date: May 2009

(E96120) 5.56mm, Marking Blue, M1071 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: May 2009

(E96121) 5.56mm, Marking Red, M1071 is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $0.116 million support the procurement of 0.095 million of the Marking Red M1071 Cartridges.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

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 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $2.635 million support the procurement of 1.936 million of the clipped SRTA M1037 Cartridges.
Type classification date: July 2012

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	0.89	32,584	0.029	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*0.508*	-	-	*0.029*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***0.508***	**-**	**-**	***0.029***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.016	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.016***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**0.524**	**-**	**-**	**0.029**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	552.627	8.515	2.615	4.217	-	4.217
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	552.627	8.515	2.615	4.217	-	4.217
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**552.627**	**8.515**	**2.615**	**4.217**	**-**	**4.217**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	6.97	74,790,425	521.364	0.21	37,366,450	7.847	0.24	8,158,101	1.958	0.24	15,666,513	3.760	-	-	-	0.24	15,666,513	3.760
Subtotal: Recurring Cost	-	-	*521.364*	-	-	*7.847*	-	-	*1.958*	-	-	*3.760*	-	-	-	-	-	*3.760*
Subtotal: Hardware Cost	**-**	**-**	***521.364***	**-**	**-**	***7.847***	**-**	**-**	***1.958***	**-**	**-**	***3.760***	**-**	**-**	**-**	**-**	**-**	***3.760***
Support - Production Engineering Cost																		
Production Engineering	-	-	31.200	-	-	0.659	-	-	0.648	-	-	0.449	-	-	-	-	-	0.449
Subtotal: Support - Production Engineering Cost	**-**	**-**	***31.200***	**-**	**-**	***0.659***	**-**	**-**	***0.648***	**-**	**-**	***0.449***	**-**	**-**	**-**	**-**	**-**	***0.449***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.046	-	-	0.010	-	-	0.009	-	-	0.008	-	-	-	-	-	0.008
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.046***	**-**	**-**	***0.010***	**-**	**-**	***0.009***	**-**	**-**	***0.008***	**-**	**-**	**-**	**-**	**-**	***0.008***
Gross/Weapon System Cost	**-**	**-**	**552.627**	**-**	**-**	**8.515**	**-**	**-**	**2.615**	**-**	**-**	**4.217**	**-**	**-**	**-**	**-**	**-**	**4.217**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
Complete Round		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	37,366,450	0.21	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		
Complete Round		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Apr 2024	13,333,977	0.24	Y		
Complete Round		2023	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Sep 2023	2,332,536	0.24	Y		

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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	220.504	5.940	5.548	4.310	-	4.310
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	220.504	5.940	5.548	4.310	-	4.310
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**220.504**	**5.940**	**5.548**	**4.310**	**-**	**4.310**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	987,669K	219.262	0.34	16,965,296	5.768	0.38	13,246,282	5.034	0.38	10,411,787	3.956	-	-	-	0.38	10,411,787	3.956
Subtotal: Recurring Cost	-	-	*219.262*	-	-	*5.768*	-	-	*5.034*	-	-	*3.956*	-	-	-	-	-	*3.956*
Subtotal: Hardware Cost	**-**	**-**	***219.262***	**-**	**-**	***5.768***	**-**	**-**	***5.034***	**-**	**-**	***3.956***	**-**	**-**	**-**	**-**	**-**	***3.956***
Support - Product Improvement Cost																		
Environmental Initiatives	-	-	0.135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***0.135***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	1.088	-	-	0.172	-	-	0.505	-	-	0.344	-	-	-	-	-	0.344
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.088***	**-**	**-**	***0.172***	**-**	**-**	***0.505***	**-**	**-**	***0.344***	**-**	**-**	**-**	**-**	**-**	***0.344***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.019	-	-	-	-	-	0.009	-	-	0.009	-	-	-	-	-	0.009
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.019***	**-**	**-**	**-**	**-**	**-**	***0.009***	**-**	**-**	***0.009***	**-**	**-**	**-**	**-**	**-**	***0.009***
Gross/Weapon System Cost	**-**	**-**	**220.504**	**-**	**-**	**5.940**	**-**	**-**	**5.548**	**-**	**-**	**4.310**	**-**	**-**	**-**	**-**	**-**	**4.310**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Apr 2022	16,965,296	0.34	Y		
COMPLETE ROUND		2022	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Apr 2023	13,246,282	0.38	Y		
COMPLETE ROUND		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Apr 2024	10,411,787	0.38	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	81.592	4.632	3.303	8.340	-	8.340
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	81.592	4.632	3.303	8.340	-	8.340
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**81.592**	**4.632**	**3.303**	**8.340**	**-**	**8.340**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	0.34	229,086K	78.111	0.56	7,790,643	4.363	0.63	4,641,020	2.924	0.63	12,419,296	7.824	-	-	-	0.63	12,419,296	7.824
Subtotal: Recurring Cost	-	-	*78.118*	-	-	*4.363*	-	-	*2.924*	-	-	*7.824*	-	-	-	-	-	*7.824*
Subtotal: Hardware Cost	**-**	**-**	***78.118***	**-**	**-**	***4.363***	**-**	**-**	***2.924***	**-**	**-**	***7.824***	**-**	**-**	**-**	**-**	**-**	***7.824***
Support - Product Improvement Cost																		
Production Verification Test	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	**-**	**-**	**-**	***0.005***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	3.431	-	-	0.260	-	-	0.375	-	-	0.512	-	-	-	-	-	0.512
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.431***	**-**	**-**	***0.260***	**-**	**-**	***0.375***	**-**	**-**	***0.512***	**-**	**-**	**-**	**-**	**-**	***0.512***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.043	-	-	0.005	-	-	0.004	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.043***	**-**	**-**	***0.005***	**-**	**-**	***0.004***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**81.592**	**-**	**-**	**4.632**	**-**	**-**	**3.303**	**-**	**-**	**8.340**	**-**	**-**	**-**	**-**	**-**	**8.340**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND(†)		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	7,790,643	0.56	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		
COMPLETE ROUND(†)		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Apr 2024	12,419,296	0.63	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 229085773																															
	1	2021	AF (‡)	2.623	.000	2.623						A -	-	-	-	-	-	-	-	-	-	-	-	.219	.219	.219	.219	.219	.219	.219	1.093
	1	2021	ARMY	7.791	.000	7.791						A -	-	-	-	-	-	-	-	-	-	-	-	.649	.649	.649	.649	.649	.649	.649	3.246
	1	**2021**	**Total**	**10.413**	**.000**	**10.413**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.868**	**.868**	**.868**	**.868**	**.868**	**.868**	**.868**	**4.339**
	1	2022	AF (‡)	2.298	.000	2.298																		A -	-	-	-	-	-	.192	2.107
	1	2022	ARMY	4.641	.000	4.641																		A -	-	-	-	-	-	1.162	3.479
	1	**2022**	**Total**	**5.783**	**.000**	**5.783**																		**-**	**-**	**-**	**-**	**-**	**-**	**1.353**	**4.430**
	1	2023	AF (‡)	.768	.000	.768																									.768
	1	2023	ARMY	12.419	.000	12.419																									12.419
	1	**2023**	**Total**	**13.187**	**.000**	**13.187**																									**13.187**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 229085773																															
	1	2021	AF (‡)	2.623	1.530	1.093	.219	.219	.219	.219	.219																				.000
	1	2021	ARMY	7.791	4.545	3.246	.649	.649	.649	.649	.649																				.000
	1	**2021**	**Total**	**10.413**	**6.074**	**4.339**	**.868**	**.868**	**.868**	**.868**	**.868**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2022	AF (‡)	2.298	.192	2.107	.192	.192	.192	.192	.192	.192	.192	.192	.192	.192	.192														.000
	1	2022	ARMY	4.641	1.162	3.479	1.162	1.162	-	-	-	-	-	-	-	-	-														1.156
	1	**2022**	**Total**	**5.783**	**1.353**	**4.430**	**1.353**	**1.353**	**.192**	**.192**	**.192**	**.192**	**.192**	**.192**	**.192**	**.192**	**.192**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2023	AF (‡)	.768	.000	.768						A -	-	-	-	-	-	-	-	-	-	-	-	-	.064	.064	.064	.064	.064	.064	.384
	1	2023	ARMY	12.419	.000	12.419						A -	-	-	-	-	-	-	-	-	-	-	-	-	1.035	1.035	1.035	1.035	1.035	1.035	6.210
	1	**2023**	**Total**	**13.187**	**.000**	**13.187**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.099**	**1.099**	**1.099**	**1.099**	**1.099**	**1.099**	**6.594**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 229085773																															
	1	2021	AF (‡)	2.623	2.623	.000																									.000
	1	2021	ARMY	7.791	7.791	.000																									.000
	1	**2021**	**Total**	**10.413**	**10.413**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	1	2022	AF (‡)	2.298	2.298	.000																									.000
	1	2022	ARMY	4.641	3.485	1.156																									1.156
	1	**2022**	**Total**	**5.783**	**5.783**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	1	2023	AF (‡)	.768	.384	.384	.064	.064	.064	.064	.064	.064																			.000
	1	2023	ARMY	12.419	6.210	6.210	1.035	1.035	1.035	1.035	1.035	1.035																			.000
	1	**2023**	**Total**	**13.187**	**6.594**	**6.594**	**1.099**	**1.099**	**1.099**	**1.099**	**1.099**	**1.099**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	5,143,040	9,771,776	6	6	12	18	6	6	13	19

(‡) 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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	9.782	0.869	0.466	0.838	-	0.838
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	9.782	0.869	0.466	0.838	-	0.838
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**9.782**	**0.869**	**0.466**	**0.838**	**-**	**0.838**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	0.70	1,229,601	0.861	0.79	534,684	0.422	0.80	996,144	0.797	-	-	-	0.80	996,144	0.797
Subtotal: Recurring Cost	-	-	*9.041*	-	-	*0.861*	-	-	*0.422*	-	-	*0.797*	-	-	-	-	-	*0.797*
Subtotal: Hardware Cost	**-**	**-**	***9.041***	**-**	**-**	***0.861***	**-**	**-**	***0.422***	**-**	**-**	***0.797***	**-**	**-**	**-**	**-**	**-**	***0.797***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.741	-	-	0.004	-	-	0.040	-	-	0.041	-	-	-	-	-	0.041
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.741***	**-**	**-**	***0.004***	**-**	**-**	***0.040***	**-**	**-**	***0.041***	**-**	**-**	**-**	**-**	**-**	***0.041***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	0.004	-	-	0.004	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	***0.004***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**9.782**	**-**	**-**	**0.869**	**-**	**-**	**0.466**	**-**	**-**	**0.838**	**-**	**-**	**-**	**-**	**-**	**0.838**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	31.431	0.510	1.221	1.458	-	1.458
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	31.431	0.510	1.221	1.458	-	1.458
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**31.431**	**0.510**	**1.221**	**1.458**	**-**	**1.458**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	0.50	1,004,485	0.502	0.56	2,027,082	1.135	0.56	2,427,398	1.359	-	-	-	0.56	2,427,398	1.359
Subtotal: Recurring Cost	-	-	*28.396*	-	-	*0.502*	-	-	*1.135*	-	-	*1.359*	-	-	-	-	-	*1.359*
Subtotal: Hardware Cost	**-**	**-**	***28.396***	**-**	**-**	***0.502***	**-**	**-**	***1.135***	**-**	**-**	***1.359***	**-**	**-**	**-**	**-**	**-**	***1.359***
Support - Production Engineering Cost																		
Production Engineering	-	-	3.008	-	-	0.007	-	-	0.082	-	-	0.095	-	-	-	-	-	0.095
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.008***	**-**	**-**	***0.007***	**-**	**-**	***0.082***	**-**	**-**	***0.095***	**-**	**-**	**-**	**-**	**-**	***0.095***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.026	-	-	0.001	-	-	0.004	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.026***	**-**	**-**	***0.001***	**-**	**-**	***0.004***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**31.431**	**-**	**-**	**0.510**	**-**	**-**	**1.221**	**-**	**-**	**1.458**	**-**	**-**	**-**	**-**	**-**	**1.458**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	838.230	6.479	6.606	7.235	-	7.235
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	838.230	6.479	6.606	7.235	-	7.235
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**838.230**	**6.479**	**6.606**	**7.235**	**-**	**7.235**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	20.29	40,443,642	820.561	0.44	13,935,929	6.132	0.48	12,516,520	6.008	0.46	12,971,021	5.967	-	-	-	0.46	12,971,021	5.967
Subtotal: Recurring Cost	-	-	*820.561*	-	-	*6.132*	-	-	*6.008*	-	-	*5.967*	-	-	-	-	-	*5.967*
Subtotal: Hardware Cost	**-**	**-**	***820.561***	**-**	**-**	***6.132***	**-**	**-**	***6.008***	**-**	**-**	***5.967***	**-**	**-**	**-**	**-**	**-**	***5.967***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.235	-	-	-	-	-	0.143	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.235***	**-**	**-**	**-**	**-**	**-**	***0.143***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	-	-	-	0.118	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	**-**	**-**	**-**	***0.118***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Product Improvement Cost																		
Environmental Initiatives	-	-	1.150	-	-	-	-	-	-	-	-	0.805	-	-	-	-	-	0.805
Subtotal: Support - Product Improvement Cost	**-**	**-**	***1.150***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.805***	**-**	**-**	**-**	**-**	**-**	***0.805***
Support - Production Engineering Cost																		
Production Engineering	-	-	16.256	-	-	0.225	-	-	0.447	-	-	0.456	-	-	-	-	-	0.456
Subtotal: Support - Production Engineering Cost	**-**	**-**	***16.256***	**-**	**-**	***0.225***	**-**	**-**	***0.447***	**-**	**-**	***0.456***	**-**	**-**	**-**	**-**	**-**	***0.456***

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Quality Assurance Cost																		
Quality Assurance	-	-	0.028	-	-	0.004	-	-	0.008	-	-	0.007	-	-	-	-	-	0.007
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.028***	**-**	**-**	***0.004***	**-**	**-**	***0.008***	**-**	**-**	***0.007***	**-**	**-**	**-**	**-**	**-**	***0.007***
Gross/Weapon System Cost	**-**	**-**	**838.230**	**-**	**-**	**6.479**	**-**	**-**	**6.606**	**-**	**-**	**7.235**	**-**	**-**	**-**	**-**	**-**	**7.235**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
Complete Round(†)		2021	OLIN CORPORATION WINCHESTER / OXFORD, MS	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	9,755,150	0.44	Y		
Complete Round(†)		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	4,180,779	0.44	Y		
Complete Round(†)		2022	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	1,877,478	0.48	Y		
Complete Round(†)		2022	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Apr 2023	10,639,042	0.48	Y		
Complete Round(†)		2023	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Feb 2023	Mar 2024	1,945,653	0.46	Y		
Complete Round(†)		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Apr 2024	11,025,368	0.46	Y		

(†) indicates the presence of a P-21

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

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 40443642																															
	1	2021	AF (‡)	1.176	.000	1.176						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.098	1.078
	1	2021	ARMY	9.755	.000	9.755						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.813	8.942
	1	2021	MC (‡)	9.160	.000	9.160						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.763	8.397
	1	2021	NSOF (‡)	3.901	.000	3.901						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.325	3.576
	1	**2021**	**Total**	**23.992**	**.000**	**23.992**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.999**	**21.993**
	2	2021	ARMY	4.181	.000	4.181						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.348	3.832
	2	2021	NAVSEA (‡)	3.103	.000	3.103						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.259	2.844
	2	**2021**	**Total**	**7.284**	**.000**	**7.284**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.607**	**6.677**
	1	2022	AF (‡)	.151	.000	.151																		A -	-	-	-	-	-	-	.151
	1	2022	ARMY	1.877	.000	1.877																		A -	-	-	-	-	-	-	1.877
	1	2022	MC (‡)	.141	.000	.141																		A -	-	-	-	-	-	-	.141
	1	2022	NAVSEA (‡)	.302	.000	.302																		A -	-	-	-	-	-	-	.302
	1	**2022**	**Total**	**2.472**	**.000**	**2.472**																		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.472**
	2	2022	AF (‡)	.856	.000	.856																		A -	-	-	-	-	-	-	.856
	2	2022	ARMY	10.639	.000	10.639																		A -	-	-	-	-	-	-	10.639
	2	2022	MC (‡)	.797	.000	.797																		A -	-	-	-	-	-	-	.797
	2	2022	NAVSEA (‡)	1.714	.000	1.714																		A -	-	-	-	-	-	-	1.714
	2	2022	NSOF (‡)	.604	.000	.604																		A -	-	-	-	-	-	-	.604
	2	**2022**	**Total**	**14.610**	**.000**	**14.610**																		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**14.610**
	1	2023	AF (‡)	.157	.000	.157																									.157
	1	2023	ARMY	1.946	.000	1.946																									1.946
	1	2023	NAVSEA (‡)	.302	.000	.302																									.302
	1	2023	NSOF (‡)	.284	.000	.284																									.284
	1	**2023**	**Total**	**2.689**	**.000**	**2.689**																									**2.689**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	2	2023	AF (‡)	.888	.000	.888																									.888
	2	2023	ARMY	11.025	.000	11.025																									11.025
	2	2023	NAVSEA (‡)	1.714	.000	1.714																									1.714
	2	2023	NSOF (‡)	1.611	.000	1.611																									1.611
	2	**2023**	**Total**	**15.237**	**.000**	**15.237**																									**15.237**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army | **Date:** April 2022

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 (Units in Millions, * = < 500)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 40443642																															
	1	2021	AF (‡)	1.176	.098	1.078	.098	.098	.098	.098	.098	.098	.098	.098	.098	.098	.098														.000
	1	2021	ARMY	9.755	.813	8.942	.813	.813	.813	.813	.813	.813	.813	.813	.813	.813	.813														.000
	1	2021	MC (‡)	9.160	.763	8.397	.763	.763	.763	.763	.763	.763	.763	.763	.763	.763	.763														.000
	1	2021	NSOF (‡)	3.901	.325	3.576	.325	.325	.325	.325	.325	.325	.325	.325	.325	.325	.325														.000
	1	**2021**	**Total**	**23.992**	**1.999**	**21.993**	**1.999**	**1.999**	**1.999**	**1.999**	**1.999**	**1.999**	**1.999**	**1.999**	**1.999**	**1.999**	**1.999**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	2	2021	ARMY	4.181	.348	3.832	.348	.348	.348	.348	.348	.348	.348	.348	.348	.348	.348														.000
	2	2021	NAVSEA (‡)	3.103	.259	2.844	.259	.259	.259	.259	.259	.259	.259	.259	.259	.259	.259														.000
	2	**2021**	**Total**	**7.284**	**.607**	**6.677**	**.607**	**.607**	**.607**	**.607**	**.607**	**.607**	**.607**	**.607**	**.607**	**.607**	**.607**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2022	AF (‡)	.151	.000	.151	-	-	-	-	-	.013	.013	.013	.013	.013	.013	.013	.013	.013	.013	.013	.013								.000
	1	2022	ARMY	1.877	.000	1.877	-	-	-	-	-	.156	.156	.156	.156	.156	.156	.156	.156	.156	.156	.156	.156								.000
	1	2022	MC (‡)	.141	.000	.141	-	-	-	-	-	.012	.012	.012	.012	.012	.012	.012	.012	.012	.012	.012	.012								.000
	1	2022	NAVSEA (‡)	.302	.000	.302	-	-	-	-	-	.025	.025	.025	.025	.025	.025	.025	.025	.025	.025	.025	.025								.000
	1	**2022**	**Total**	**2.472**	**.000**	**2.472**	**-**	**-**	**-**	**-**	**-**	**.206**	**.206**	**.206**	**.206**	**.206**	**.206**	**.206**	**.206**	**.206**	**.206**	**.206**	**.206**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	2	2022	AF (‡)	.856	.000	.856	-	-	-	-	-	-	.071	.071	.071	.071	.071	.071	.071	.071	.071	.071	.071	.071							.000
	2	2022	ARMY	10.639	.000	10.639	-	-	-	-	-	-	.887	.887	.887	.887	.887	.887	.887	.887	.887	.887	.887	.887							.000
	2	2022	MC (‡)	.797	.000	.797	-	-	-	-	-	-	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066	.066							.000
	2	2022	NAVSEA (‡)	1.714	.000	1.714	-	-	-	-	-	-	.143	.143	.143	.143	.143	.143	.143	.143	.143	.143	.143	.143							.000
	2	2022	NSOF (‡)	.604	.000	.604	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	-	-	-	-	-	-							.000
	2	**2022**	**Total**	**14.610**	**.000**	**14.610**	**.050**	**.050**	**.050**	**.050**	**.050**	**.050**	**1.218**	**1.217**	**1.217**	**1.217**	**1.217**	**1.217**	**1.167**	**1.167**	**1.167**	**1.167**	**1.167**	**1.167**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2023	AF (‡)	.157	.000	.157					A -	-	-	-	-	-	-	-	-	-	-	-	-	.013	.013	.013	.013	.013	.013	.013	.065
	1	2023	ARMY	1.946	.000	1.946					A -	-	-	-	-	-	-	-	-	-	-	-	-	.162	.162	.162	.162	.162	.162	.162	.811
	1	2023	NAVSEA (‡)	.302	.000	.302					A -	-	-	-	-	-	-	-	-	-	-	-	-	.025	.025	.025	.025	.025	.025	.025	.126
	1	2023	NSOF (‡)	.284	.000	.284					A -	-	-	-	-	-	-	-	-	-	-	-	-	.024	.024	.024	.024	.024	.024	.024	.118
	1	**2023**	**Total**	**2.689**	**.000**	**2.689**					**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.224**	**.224**	**.224**	**.224**	**.224**	**.224**	**.224**	**1.120**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	2	2023	AF (‡)	.888	.000	.888						A -	-	-	-	-	-	-	-	-	-	-	-	-	.074	.074	.074	.074	.074	.074	.444
	2	2023	ARMY	11.025	.000	11.025						A -	-	-	-	-	-	-	-	-	-	-	-	-	.919	.919	.919	.919	.919	.919	5.513
	2	2023	NAVSEA (‡)	1.714	.000	1.714						A -	-	-	-	-	-	-	-	-	-	-	-	-	.143	.143	.143	.143	.143	.143	.857
	2	2023	NSOF (‡)	1.611	.000	1.611						A -	-	-	-	-	-	-	-	-	-	-	-	-	.134	.134	.134	.134	.134	.134	.805
	2	**2023**	**Total**	**15.237**	**.000**	**15.237**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.270**	**1.270**	**1.270**	**1.270**	**1.270**	**1.270**	**7.619**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 40443642																															
	1	2021	AF (‡)	1.176	1.176	.000																									.000
	1	2021	ARMY	9.755	9.755	.000																									.000
	1	2021	MC (‡)	9.160	9.160	.000																									.000
	1	2021	NSOF (‡)	3.901	3.901	.000																									.000
	1	**2021**	**Total**	**23.992**	**23.992**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	2	2021	ARMY	4.181	4.181	.000																									.000
	2	2021	NAVSEA (‡)	3.103	3.103	.000																									.000
	2	**2021**	**Total**	**7.284**	**7.284**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	1	2022	AF (‡)	.151	.151	.000																									.000
	1	2022	ARMY	1.877	1.877	.000																									.000
	1	2022	MC (‡)	.141	.141	.000																									.000
	1	2022	NAVSEA (‡)	.302	.302	.000																									.000
	1	**2022**	**Total**	**2.472**	**2.472**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	2	2022	AF (‡)	.856	.856	.000																									.000
	2	2022	ARMY	10.639	10.639	.000																									.000
	2	2022	MC (‡)	.797	.797	.000																									.000
	2	2022	NAVSEA (‡)	1.714	1.714	.000																									.000
	2	2022	NSOF (‡)	.604	.604	.000																									.000
	2	**2022**	**Total**	**14.610**	**14.610**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	1	2023	AF (‡)	.157	.091	.065	.013	.013	.013	.013	.013																				.000
	1	2023	ARMY	1.946	1.135	.811	.162	.162	.162	.162	.162																				.000
	1	2023	NAVSEA (‡)	.302	.176	.126	.025	.025	.025	.025	.025																				.000
	1	2023	NSOF (‡)	.284	.166	.118	.024	.024	.024	.024	.024																				.000
	1	**2023**	**Total**	**2.689**	**1.569**	**1.120**	**.224**	**.224**	**.224**	**.224**	**.224**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	2	2023	AF (‡)	.888	.444	.444	.074	.074	.074	.074	.074	.074																			.000
	2	2023	ARMY	11.025	5.513	5.513	.919	.919	.919	.919	.919	.919																			.000
	2	2023	NAVSEA (‡)	1.714	.857	.857	.143	.143	.143	.143	.143	.143																			.000
	2	2023	NSOF (‡)	1.611	.805	.805	.134	.134	.134	.134	.134	.134																			.000
	2	**2023**	**Total**	**15.237**	**7.619**	**7.619**	**1.270**	**1.270**	**1.270**	**1.270**	**1.270**	**1.270**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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 CORPORATION WINCHESTER - OXFORD, MS	1,680	5,700,000	14,200,000	9	9	15	24	6	5	13	18
2	OLIN WINCHESTER, LLC - LCAAP - INDEPENDENCE, MO	1,680	5,700,000	14,200,000	9	9	15	24	6	6	13	19

(‡) 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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	205.224	30.144	41.439	27.944	-	27.944
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	205.224	30.144	41.439	27.944	-	27.944
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**205.224**	**30.144**	**41.439**	**27.944**	**-**	**27.944**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	1.84	103,403K	190.468	0.40	71,946,722	28.779	0.44	89,068,819	39.190	0.44	58,915,493	25.923	-	-	-	0.44	58,915,493	25.923
Subtotal: Recurring Cost	-	-	*190.468*	-	-	*28.779*	-	-	*39.190*	-	-	*25.923*	-	-	-	-	-	*25.923*
Subtotal: Hardware Cost	**-**	**-**	***190.468***	**-**	**-**	***28.779***	**-**	**-**	***39.190***	**-**	**-**	***25.923***	**-**	**-**	**-**	**-**	**-**	***25.923***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.445	-	-	0.055	-	-	0.055	-	-	0.115	-	-	-	-	-	0.115
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.445***	**-**	**-**	***0.055***	**-**	**-**	***0.055***	**-**	**-**	***0.115***	**-**	**-**	**-**	**-**	**-**	***0.115***
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	-	-	-	0.202	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	**-**	**-**	**-**	***0.202***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Product Improvement Cost																		
Environmental Initiatives	-	-	0.365	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***0.365***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	13.931	-	-	1.099	-	-	2.184	-	-	1.897	-	-	-	-	-	1.897

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Production Engineering Cost	-	-	***13.931***	-	-	***1.099***	-	-	***2.184***	-	-	***1.897***	-	-	-	-	-	***1.897***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.055	-	-	0.009	-	-	0.009	-	-	0.009	-	-	-	-	-	0.009
Subtotal: Support - Quality Assurance Cost	-	-	***0.055***	-	-	***0.009***	-	-	***0.009***	-	-	***0.009***	-	-	-	-	-	***0.009***
Gross/Weapon System Cost	-	-	**205.224**	-	-	**30.144**	-	-	**41.439**	-	-	**27.944**	-	-	-	-	-	**27.944**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND(†)		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	71,946,722	0.40	Y		
COMPLETE ROUND(†)		2022	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	13,360,323	0.45	Y		
COMPLETE ROUND(†)		2022	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Apr 2023	75,708,496	0.45	Y		
COMPLETE ROUND(†)		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Apr 2024	58,915,493	0.44	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 103403036																															
	2	2021	ARMY	71.947	.000	71.947						A -	-	-	-	-	-	-	-	-	-	-	-	5.996	5.996	5.996	5.996	5.996	5.996	5.996	29.978
	1	2022	ARMY	13.360	.000	13.360																		A -	-	-	-	-	-	-	13.360
	2	2022	ARMY	75.708	.000	75.708																		A -	-	-	-	-	-	-	75.708
	2	2023	ARMY	58.915	.000	58.915																									58.915
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 103403036																															
	2	2021	ARMY	71.947	41.969	29.978	5.996	5.996	5.996	5.996	5.996																				.000
	1	2022	ARMY	13.360	.000	13.360	-	-	-	-	-	1.113	1.113	1.113	1.113	1.113	1.113	1.113	1.113	1.113	1.113	1.113	1.113								.000
	2	2022	ARMY	75.708	.000	75.708	-	-	-	-	-	-	6.309	6.309	6.309	6.309	6.309	6.309	6.309	6.309	6.309	6.309	6.309	6.309							.000
	2	2023	ARMY	58.915	.000	58.915						A -	-	-	-	-	-	-	-	-	-	-	-	-	4.910	4.910	4.910	4.910	4.910	4.910	29.458
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 103403036																															
	2	2021	ARMY	71.947	71.947	.000																									.000
	1	2022	ARMY	13.360	13.360	.000																									.000
	2	2022	ARMY	75.708	75.708	.000																									.000
	2	2023	ARMY	58.915	29.458	29.458	4.910	4.910	4.910	4.910	4.910	4.910																			.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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 CORPORATION WINCHESTER - OXFORD, MS	900	19,400,000	675,000,000	6	6	12	18	6	6	13	19
2	OLIN WINCHESTER, LLC - LCAAP - INDEPENDENCE, MO	900	19,400,000	67,500,000	6	6	12	18	6	6	13	19

"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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	25.254	1.725	1.261	1.495	-	1.495
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	25.254	1.725	1.261	1.495	-	1.495
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**25.254**	**1.725**	**1.261**	**1.495**	**-**	**1.495**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	0.75	2,289,854	1.717	0.90	1,321,729	1.190	0.92	1,542,640	1.419	-	-	-	0.92	1,542,640	1.419
Subtotal: Recurring Cost	-	-	*22.758*	-	-	*1.717*	-	-	*1.190*	-	-	*1.419*	-	-	-	-	-	*1.419*
Subtotal: Hardware Cost	**-**	**-**	***22.758***	**-**	**-**	***1.717***	**-**	**-**	***1.190***	**-**	**-**	***1.419***	**-**	**-**	**-**	**-**	**-**	***1.419***
Support - Production Engineering Cost																		
Production Engineering	-	-	2.496	-	-	0.008	-	-	0.071	-	-	0.076	-	-	-	-	-	0.076
Subtotal: Support - Production Engineering Cost	**-**	**-**	***2.496***	**-**	**-**	***0.008***	**-**	**-**	***0.071***	**-**	**-**	***0.076***	**-**	**-**	**-**	**-**	**-**	***0.076***
Gross/Weapon System Cost	**-**	**-**	**25.254**	**-**	**-**	**1.725**	**-**	**-**	**1.261**	**-**	**-**	**1.495**	**-**	**-**	**-**	**-**	**-**	**1.495**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	14.105	1.268	0.645	0.859	-	0.859
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	14.105	1.268	0.645	0.859	-	0.859
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**14.105**	**1.268**	**0.645**	**0.859**	**-**	**0.859**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	19,028,769	13.300	0.75	1,683,214	1.262	0.90	674,173	0.607	0.92	886,350	0.815	-	-	-	0.92	886,350	0.815
Subtotal: Recurring Cost	-	-	*13.301*	-	-	*1.262*	-	-	*0.607*	-	-	*0.815*	-	-	-	-	-	*0.815*
Subtotal: Hardware Cost	**-**	**-**	***13.301***	**-**	**-**	***1.262***	**-**	**-**	***0.607***	**-**	**-**	***0.815***	**-**	**-**	**-**	**-**	**-**	***0.815***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.804	-	-	0.006	-	-	0.038	-	-	0.044	-	-	-	-	-	0.044
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.804***	**-**	**-**	***0.006***	**-**	**-**	***0.038***	**-**	**-**	***0.044***	**-**	**-**	**-**	**-**	**-**	***0.044***
Gross/Weapon System Cost	**-**	**-**	**14.105**	**-**	**-**	**1.268**	**-**	**-**	**0.645**	**-**	**-**	**0.859**	**-**	**-**	**-**	**-**	**-**	**0.859**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	5.881	0.806	0.049	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5.881	0.806	0.049	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5.881**	**0.806**	**0.049**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	0.77	5,546,624	4.269	1.05	763,138	0.801	1.14	38,597	0.044	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*4.271*	-	-	*0.801*	-	-	*0.044*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***4.271***	**-**	**-**	***0.801***	**-**	**-**	***0.044***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	1.610	-	-	0.005	-	-	0.005	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.610***	**-**	**-**	***0.005***	**-**	**-**	***0.005***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**5.881**	**-**	**-**	**0.806**	**-**	**-**	**0.049**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	5.189	0.239	-	0.116	-	0.116
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5.189	0.239	-	0.116	-	0.116
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5.189**	**0.239**	**-**	**0.116**	**-**	**0.116**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	0.78	5,839,321	4.547	1.05	226,304	0.238	-	-	-	1.16	95,376	0.111	-	-	-	1.16	95,376	0.111
Subtotal: Recurring Cost	-	-	*4.549*	-	-	*0.238*	-	-	-	-	-	*0.111*	-	-	-	-	-	*0.111*
Subtotal: Hardware Cost	**-**	**-**	***4.549***	**-**	**-**	***0.238***	**-**	**-**	**-**	**-**	**-**	***0.111***	**-**	**-**	**-**	**-**	**-**	***0.111***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.640	-	-	0.001	-	-	-	-	-	0.005	-	-	-	-	-	0.005
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.640***	**-**	**-**	***0.001***	**-**	**-**	**-**	**-**	**-**	***0.005***	**-**	**-**	**-**	**-**	**-**	***0.005***
Gross/Weapon System Cost	**-**	**-**	**5.189**	**-**	**-**	**0.239**	**-**	**-**	**-**	**-**	**-**	**0.116**	**-**	**-**	**-**	**-**	**-**	**0.116**

Remarks:
Ammunition costs are increasing greater than the historical inflation rates of 2-3%, due to significant increases to metals and manufacturing labor costs.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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, sngl rd [AB67]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	9.092	2.814	2.337	2.635	-	2.635
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	9.092	2.814	2.337	2.635	-	2.635
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**9.092**	**2.814**	**2.337**	**2.635**	**-**	**2.635**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	1.02	8,213,314	8.363	1.09	2,525,070	2.752	1.26	1,769,072	2.229	1.30	1,936,355	2.517	-	-	-	1.30	1,936,355	2.517
Subtotal: Recurring Cost	-	-	*8.361*	-	-	*2.752*	-	-	*2.229*	-	-	*2.517*	-	-	-	-	-	*2.517*
Subtotal: Hardware Cost	**-**	**-**	***8.361***	**-**	**-**	***2.752***	**-**	**-**	***2.229***	**-**	**-**	***2.517***	**-**	**-**	**-**	**-**	**-**	***2.517***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.731	-	-	0.062	-	-	0.108	-	-	0.118	-	-	-	-	-	0.118
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.731***	**-**	**-**	***0.062***	**-**	**-**	***0.108***	**-**	**-**	***0.118***	**-**	**-**	**-**	**-**	**-**	***0.118***
Gross/Weapon System Cost	**-**	**-**	**9.092**	**-**	**-**	**2.814**	**-**	**-**	**2.337**	**-**	**-**	**2.635**	**-**	**-**	**-**	**-**	**-**	**2.635**

Remarks:
Ammunition costs are increasing greater than the historical inflation rates of 2-3%, due to significant increases to metals and manufacturing labor costs.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	891.083	103.343	101.926	90.019	-	90.019	90.183	72.189	86.846	86.846	-	1,522.435
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	891.083	103.343	101.926	90.019	-	90.019	90.183	72.189	86.846	86.846	-	1,522.435
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**891.083**	**103.343**	**101.926**	**90.019**	**-**	**90.019**	**90.183**	**72.189**	**86.846**	**86.846**	**-**	**1,522.435**
(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 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.

(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.

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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	A		- / 369.240	- / 8.060	- / 6.314	- / 4.733	- / -	- / 4.733
P-5	E02011 / CTG, 7.62mm Ball M80A1 LeadFree, w/M13 Link [AB79]	P-5a	A		- / 81.426	- / 12.482	- / 1.878	- / 2.150	- / -	- / 2.150
P-5	E02012 / CTG, 7.62mm 4 Ball M80A1/1 Trcr M62A1 LeadFree [AB86]	P-5a, P-21	A		- / 350.244	- / 58.963	- / 68.426	- / 61.065	- / -	- / 61.065
P-5	E02501 / CTG, 7.62mm, Single Round (NPF DDI), M63A1 [AB47]		A		- / 1.070	- / 0.040	- / 0.075	- / -	- / -	- / -
P-5	E89100 / CTG, 7.62mm Special Ball, M118 Long Range [AA11]		A		- / 47.390	- / 0.838	- / 1.768	- / 0.986	- / -	- / 0.986
P-5	F57510 / CTG, 7.62mm Advanced Armor Piercing, XM1158	P-5a, P-21	A		- / 41.713	- / 22.960	- / 23.465	- / 21.085	- / -	- / 21.085
P-40	**Total Gross/Weapon System Cost**				**- / 891.083**	**- / 103.343**	**- / 101.926**	**- / 90.019**	**- / -**	**- / 90.019**

*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 2023 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.

FY2023 Base Budget supports the Minimum Sustaining Rates at both Lake City Army Ammunition Plant (LCAAP) as well as the Second Source facility in Oxford, MS.

FY 2023 Total Base dollars in the amount of $90.019 million supports the procurement of 70.415 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.

(E01902) 7.62mm Blank, M82 w/M13 Link is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. The FY 2023 Base procurement dollars in the amount of $4.733 million supports the procurement of 7.864 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 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2023 Base procurement dollars in the amount of $2.150 million supports the procurement of 2.212 million 7.62mm M80A1 1 Ball (EPR) (LFS) Cartridges.
Type classification date: 1962

(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 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2023 Base procurement dollars in the amount of $61.065 million supports the procurement of 58.012 million 7.62mm M80A1 4 Ball/1Trace (EPR) (LFS) Cartridges.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

Type classification date: 1962

(E02501) 7.62mm Single Round (NPF DDI) M63A1 Round 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: 1982

(E89100) 7.62mm M118 Long Range Round is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2023 Base procurement dollars in the amount of $0.986 million supports the procurement of .903 million 7.62mm M118 Long Range Cartridges.
Type classification date: Prior to 1997

(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 2023 request builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2023 Base procurement in the amount of $21.085 million supports the procurement of 1.424 million 7.62mm M1158 Advanced Armor-Piercing (ADVAP) Ball Cartridges 4Ball/1 M62A1 Tracer linked Cartridges.
Type classification date: 4th Quarter 2020

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	369.240	8.060	6.314	4.733	-	4.733
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	369.240	8.060	6.314	4.733	-	4.733
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**369.240**	**8.060**	**6.314**	**4.733**	**-**	**4.733**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	916,858K	365.826	0.48	15,598,009	7.487	0.54	9,857,891	5.323	0.54	7,864,338	4.247	-	-	-	0.54	7,864,338	4.247
Subtotal: Recurring Cost	-	-	*365.826*	-	-	*7.487*	-	-	*5.323*	-	-	*4.247*	-	-	-	-	-	*4.247*
Subtotal: Hardware Cost	**-**	**-**	***365.826***	**-**	**-**	***7.487***	**-**	**-**	***5.323***	**-**	**-**	***4.247***	**-**	**-**	**-**	**-**	**-**	***4.247***
Support - Production Engineering Cost																		
Production Engineering	-	-	3.221	-	-	0.554	-	-	0.971	-	-	0.477	-	-	-	-	-	0.477
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.221***	**-**	**-**	***0.554***	**-**	**-**	***0.971***	**-**	**-**	***0.477***	**-**	**-**	**-**	**-**	**-**	***0.477***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.023	-	-	0.018	-	-	0.009	-	-	0.009	-	-	-	-	-	0.009
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.023***	**-**	**-**	***0.018***	**-**	**-**	***0.009***	**-**	**-**	***0.009***	**-**	**-**	**-**	**-**	**-**	***0.009***
Gross/Weapon System Cost	**-**	**-**	**369.240**	**-**	**-**	**8.060**	**-**	**-**	**6.314**	**-**	**-**	**4.733**	**-**	**-**	**-**	**-**	**-**	**4.733**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Oct 2021	15,598,009	0.48	Y		
COMPLETE ROUND		2022	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Apr 2023	9,857,891	0.54	Y		
COMPLETE ROUND		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Apr 2024	7,864,338	0.54	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	81.426	12.482	1.878	2.150	-	2.150
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	81.426	12.482	1.878	2.150	-	2.150
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**81.426**	**12.482**	**1.878**	**2.150**	**-**	**2.150**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	0.78	97,561,225	76.195	0.85	13,838,997	11.763	0.91	1,915,832	1.743	0.89	2,212,475	1.969	-	-	-	0.89	2,212,475	1.969
Subtotal: Recurring Cost	-	-	*76.195*	-	-	*11.763*	-	-	*1.743*	-	-	*1.969*	-	-	-	-	-	*1.969*
Subtotal: Hardware Cost	**-**	**-**	***76.195***	**-**	**-**	***11.763***	**-**	**-**	***1.743***	**-**	**-**	***1.969***	**-**	**-**	**-**	**-**	**-**	***1.969***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	0.115	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	***0.115***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	5.193	-	-	0.599	-	-	0.125	-	-	0.171	-	-	-	-	-	0.171
Subtotal: Support - Production Engineering Cost	**-**	**-**	***5.193***	**-**	**-**	***0.599***	**-**	**-**	***0.125***	**-**	**-**	***0.171***	**-**	**-**	**-**	**-**	**-**	***0.171***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.038	-	-	0.005	-	-	0.010	-	-	0.010	-	-	-	-	-	0.010
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.038***	**-**	**-**	***0.005***	**-**	**-**	***0.010***	**-**	**-**	***0.010***	**-**	**-**	**-**	**-**	**-**	***0.010***
Gross/Weapon System Cost	**-**	**-**	**81.426**	**-**	**-**	**12.482**	**-**	**-**	**1.878**	**-**	**-**	**2.150**	**-**	**-**	**-**	**-**	**-**	**2.150**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND		2021	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Oct 2021	10,913,433	0.85	Y		
COMPLETE ROUND		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Oct 2021	2,925,564	0.85	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 CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Oct 2022	478,958	0.91	Y		
COMPLETE ROUND		2023	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	553,119	0.89	Y		
COMPLETE ROUND		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	1,659,356	0.89	Y		

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

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	350.244	58.963	68.426	61.065	-	61.065
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	350.244	58.963	68.426	61.065	-	61.065
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**350.244**	**58.963**	**68.426**	**61.065**	**-**	**61.065**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	1.01	323,278K	327.481	0.83	66,794,007	55.439	0.99	65,823,021	65.165	0.97	58,011,507	56.271	-	-	-	0.97	58,011,507	56.271
Subtotal: Recurring Cost	-	-	*327.481*	-	-	*55.439*	-	-	*65.165*	-	-	*56.271*	-	-	-	-	-	*56.271*
Subtotal: Hardware Cost	**-**	**-**	***327.481***	**-**	**-**	***55.439***	**-**	**-**	***65.165***	**-**	**-**	***56.271***	**-**	**-**	**-**	**-**	**-**	***56.271***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.413	-	-	0.115	-	-	0.105	-	-	0.230	-	-	-	-	-	0.230
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.413***	**-**	**-**	***0.115***	**-**	**-**	***0.105***	**-**	**-**	***0.230***	**-**	**-**	**-**	**-**	**-**	***0.230***
Support - Product Improvement Cost																		
Environmental Initiatives	-	-	1.580	-	-	0.105	-	-	0.105	-	-	0.105	-	-	-	-	-	0.105
Subtotal: Support - Product Improvement Cost	**-**	**-**	***1.580***	**-**	**-**	***0.105***	**-**	**-**	***0.105***	**-**	**-**	***0.105***	**-**	**-**	**-**	**-**	**-**	***0.105***
Support - Production Engineering Cost																		
Production Engineering	-	-	20.797	-	-	3.273	-	-	2.923	-	-	4.440	-	-	-	-	-	4.440
Subtotal: Support - Production Engineering Cost	**-**	**-**	***20.797***	**-**	**-**	***3.273***	**-**	**-**	***2.923***	**-**	**-**	***4.440***	**-**	**-**	**-**	**-**	**-**	***4.440***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.050	-	-	0.028	-	-	0.019	-	-	0.019	-	-	-	-	-	0.019
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.050***	**-**	**-**	***0.028***	**-**	**-**	***0.019***	**-**	**-**	***0.019***	**-**	**-**	**-**	**-**	**-**	***0.019***

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	350.244	-	-	58.963	-	-	68.426	-	-	61.065	-	-	-	-	-	61.065

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND(†)		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Oct 2021	66,794,007	0.83	Y		
COMPLETE ROUND(†)		2022	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	16,455,755	0.99	Y		
COMPLETE ROUND(†)		2022	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	49,367,266	0.99	Y		
COMPLETE ROUND(†)		2023	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	14,502,877	0.97	Y		
COMPLETE ROUND(†)		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	43,508,630	0.97	Y		

(†) indicates the presence of a P-21

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

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 323278321																															
	2	2021	ARMY	66.794	.000	66.794						A -	-	-	-	-	-	-	5.566	5.566	5.566	5.566	5.566	5.566	5.566	5.566	5.566	5.566	5.566	5.566	.000
	1	2022	ARMY	16.456	.000	16.456																		A -	-	-	-	-	-	-	16.456
	2	2022	ARMY	49.367	.000	49.367																		A -	-	-	-	-	-	-	49.367
	1	2023	ARMY	14.503	.000	14.503																									14.503
	2	2023	ARMY	43.509	.000	43.509																									43.509
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 323278321																															
	2	2021	ARMY	66.794	66.794	.000																									.000
	1	2022	ARMY	16.456	.000	16.456	-	-	-	-	-	1.371	1.371	1.371	1.371	1.371	1.371	1.371	1.371	1.371	1.371	1.371	1.371								.000
	2	2022	ARMY	49.367	.000	49.367	-	-	-	-	-	4.114	4.114	4.114	4.114	4.114	4.114	4.114	4.114	4.114	4.114	4.114	4.114								.000
	1	2023	ARMY	14.503	.000	14.503						A -	-	-	-	-	-	-	-	-	-	-	-	1.209	1.209	1.209	1.209	1.209	1.209	1.209	6.043
	2	2023	ARMY	43.509	.000	43.509						A -	-	-	-	-	-	-	-	-	-	-	-	3.626	3.626	3.626	3.626	3.626	3.626	3.626	18.129
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 323278321																															
	2	2021	ARMY	66.794	66.794	.000																									.000
	1	2022	ARMY	16.456	16.456	.000																									.000
	2	2022	ARMY	49.367	49.367	.000																									.000
	1	2023	ARMY	14.503	8.460	6.043	1.209	1.209	1.209	1.209	1.209																				.000
	2	2023	ARMY	43.509	25.380	18.129	3.626	3.626	3.626	3.626	3.626																				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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 CORPORATION WINCHESTER - OXFORD, MS	500,000	2,000,000	6,000,000	6	6	18	24	6	6	12	18
2	OLIN WINCHESTER, LLC - LCAAP - INDEPENDENCE, MO	500,000	2,000,000	10,000,000	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1.070	0.040	0.075	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1.070	0.040	0.075	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1.070**	**0.040**	**0.075**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	21.57	45,000	0.971	1.09	32,166	0.035	1.09	67,087	0.073	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*0.971*	-	-	*0.035*	-	-	*0.073*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***0.971***	**-**	**-**	***0.035***	**-**	**-**	***0.073***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.099	-	-	0.000	-	-	0.002	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.099***	**-**	**-**	**-**	**-**	**-**	***0.002***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	***0.005***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**1.070**	**-**	**-**	**0.040**	**-**	**-**	**0.075**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	47.390	0.838	1.768	0.986	-	0.986
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	47.390	0.838	1.768	0.986	-	0.986
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**47.390**	**0.838**	**1.768**	**0.986**	**-**	**0.986**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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																		
BOX METAL M2A2	13.21	11,213	0.148	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
COMPLETE ROUND	0.97	44,487,759	43.114	0.91	812,110	0.739	1.00	1,702,834	1.703	1.01	902,732	0.912	-	-	-	1.01	902,732	0.912
Subtotal: Recurring Cost	-	-	*43.257*	-	-	*0.739*	-	-	*1.703*	-	-	*0.912*	-	-	-	-	-	*0.912*
Subtotal: Hardware Cost	**-**	**-**	***43.257***	**-**	**-**	***0.739***	**-**	**-**	***1.703***	**-**	**-**	***0.912***	**-**	**-**	**-**	**-**	**-**	***0.912***
Support - Production Engineering Cost																		
Production Engineering	-	-	4.109	-	-	0.096	-	-	0.053	-	-	0.066	-	-	-	-	-	0.066
Subtotal: Support - Production Engineering Cost	**-**	**-**	***4.109***	**-**	**-**	***0.096***	**-**	**-**	***0.053***	**-**	**-**	***0.066***	**-**	**-**	**-**	**-**	**-**	***0.066***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.019	-	-	0.005	-	-	0.005	-	-	0.005	-	-	-	-	-	0.005
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.019***	**-**	**-**	***0.005***	**-**	**-**	***0.005***	**-**	**-**	***0.005***	**-**	**-**	**-**	**-**	**-**	***0.005***
Gross/Weapon System Cost	**-**	**-**	**47.390**	**-**	**-**	**0.838**	**-**	**-**	**1.768**	**-**	**-**	**0.986**	**-**	**-**	**-**	**-**	**-**	**0.986**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	41.713	22.960	23.465	21.085	-	21.085
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	41.713	22.960	23.465	21.085	-	21.085
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**41.713**	**22.960**	**23.465**	**21.085**	**-**	**21.085**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	18.22	2,107,849	38.397	16.26	1,350,057	21.952	15.18	1,456,162	22.105	14.29	1,423,741	20.345	-	-	-	14.29	1,423,741	20.345
Subtotal: Recurring Cost	-	-	*38.397*	-	-	*21.952*	-	-	*22.105*	-	-	*20.345*	-	-	-	-	-	*20.345*
Subtotal: Hardware Cost	**-**	**-**	***38.397***	**-**	**-**	***21.952***	**-**	**-**	***22.105***	**-**	**-**	***20.345***	**-**	**-**	**-**	**-**	**-**	***20.345***
Support - Non-Recurring Support Cost																		
Value Engineering	-	-	0.689	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Non-Recurring Support Cost	**-**	**-**	***0.689***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	2.612	-	-	0.999	-	-	1.352	-	-	0.731	-	-	-	-	-	0.731
Subtotal: Support - Production Engineering Cost	**-**	**-**	***2.612***	**-**	**-**	***0.999***	**-**	**-**	***1.352***	**-**	**-**	***0.731***	**-**	**-**	**-**	**-**	**-**	***0.731***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.015	-	-	0.009	-	-	0.009	-	-	0.009	-	-	-	-	-	0.009
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.015***	**-**	**-**	***0.009***	**-**	**-**	***0.009***	**-**	**-**	***0.009***	**-**	**-**	**-**	**-**	**-**	***0.009***
Gross/Weapon System Cost	**-**	**-**	**41.713**	**-**	**-**	**22.960**	**-**	**-**	**23.465**	**-**	**-**	**21.085**	**-**	**-**	**-**	**-**	**-**	**21.085**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND(†)		2021	US ARMY ARDEC RDECOM / PICATINNY ARSENAL, NJ	Option / FFP	PICATINNY ARSENAL, NJ	Aug 2021	May 2022	1,100,057	16.26	Y		
COMPLETE ROUND(†)		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2021	Sep 2022	250,000	16.26	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		
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(†)		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	1,423,741	14.29	Y		

(†) indicates the presence of a P-21

Remarks:
FY 2023 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.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 Millions, * = < 500)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 2107849																															
	1	2021	ARMY	1.100	.000	1.100											A -	-	-	-	-	-	-	-	-	.092	.092	.092	.092	.092	.642
	2	2021	ARMY	.250	.000	.250												A -	-	-	-	-	-	-	-	-	-	-	-	.021	.229
	1	2022	ARMY	.614	.000	.614																		A -	-	-	-	-	-	-	.614
	2	2022	ARMY	.842	.000	.842																		A -	-	-	-	-	-	-	.842
	2	2023	ARMY	1.424	.000	1.424																									1.424
	2	2023	NSOF (‡)	.068	.000	.068																									.068
	2	**2023**	**Total**	**1.491**	**.000**	**1.491**																									**1.491**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 Millions, * = < 500)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 2107849																															
	1	2021	ARMY	1.100	.458	.642	.092	.092	.092	.092	.092	.092	.092																		.000
	2	2021	ARMY	.250	.021	.229	.021	.021	.021	.021	.021	.021	.021	.021	.021	.021	.021														.000
	1	2022	ARMY	.614	.000	.614	-	-	-	-	-	.051	.051	.051	.051	.051	.051	.051	.051	.051	.051	.051	.051								.000
	2	2022	ARMY	.842	.000	.842	-	-	-	-	-	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070								.000
	2	2023	ARMY	1.424	.000	1.424						A -	-	-	-	-	-	-	-	-	-	-	-	.119	.119	.119	.119	.119	.119	.119	.593
	2	2023	NSOF (‡)	.068	.000	.068						A -	-	-	-	-	-	-	-	-	-	-	-	.006	.006	.006	.006	.006	.006	.006	.028
	2	**2023**	**Total**	**1.491**	**.000**	**1.491**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.124**	**.124**	**.124**	**.124**	**.124**	**.124**	**.124**	**.621**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 Millions, * = < 500)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 2107849																															
	1	2021	ARMY	1.100	1.100	.000																									.000
	2	2021	ARMY	.250	.250	.000																									.000
	1	2022	ARMY	.614	.614	.000																									.000
	2	2022	ARMY	.842	.842	.000																									.000
	2	2023	ARMY	1.424	.831	.593	.119	.119	.119	.119	.119																				.000
	2	2023	NSOF (‡)	.068	.039	.028	.006	.006	.006	.006	.006																				.000
	2	**2023**	**Total**	**1.491**	**.870**	**.621**	**.124**	**.124**	**.124**	**.124**	**.124**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	US ARMY ARDEC RDECOM - PICATINNY ARSENAL, NJ	400,000	1,500,000	2,000,000	6	6	12	18	6	6	12	18
2	OLIN WINCHESTER, LLC - LCAAP - INDEPENDENCE, MO	400,000	1,500,000	2,000,000	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 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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	14.386	71.234	128.662	-	128.662	196.146	210.746	344.266	344.257	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	14.386	71.234	128.662	-	128.662	196.146	210.746	344.266	344.257	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**14.386**	**71.234**	**128.662**	**-**	**128.662**	**196.146**	**210.746**	**344.266**	**344.257**	**Continuing**	**Continuing**
(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 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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			- / -	- / 14.386	- / 59.496	- / 23.523	- / -	- / 23.523
P-5	E06014 / NEXT GENERATION REDUCED RANGE ROUND	P-5a, P-21			- / -	- / -	- / 4.807	- / 74.209	- / -	- / 74.209
P-5	E06015 / NEXT GENERATION SQUAD WEAPON SPECIAL PURPOSE ROUND	P-5a, P-21			- / -	- / -	- / 3.369	- / 7.858	- / -	- / 7.858
P-5	E60011 / NEXT GENERATION BLANK ROUND	P-5a, P-21			- / -	- / -	- / 3.562	- / 23.072	- / -	- / 23.072
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 14.386**	**- / 71.234**	**- / 128.662**	**- / -**	**- / 128.662**

*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 2023 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 2023 Base procurement dollars in the amount of $128.662 million supports procurement of 52.664 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. The NGSW-A program is a key Army Modernization Priority and supports the Soldier Lethality Cross Functional Team (CFT) objectives.

(E06002) NEXT GENERATION COMBAT ROUND / General Purpose (GP) ammunition is a training standard item used in both combat and training. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $23.523 million supports the procurement of 8.305 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 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $74.209 million supports the procurement of 29.199 million Reduced Range cartridges.
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 2023 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $7.858 million supports the procurement of 0.354 million SP cartridges.
Type classification date: To be determined

(E60011) NEXT GENERATION BLANK ROUND is a training unique item not used in combat. FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $23.072 million supports the procurement of 14.806 million BLANK cartridges.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

Type classification date: To be determined

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	14.386	59.496	23.523	-	23.523
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	14.386	59.496	23.523	-	23.523
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**14.386**	**59.496**	**23.523**	**-**	**23.523**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	4,364,763	13.836	2.41	23,537,616	56.726	2.68	8,304,515	22.256	-	-	-	2.68	8,304,515	22.256
Subtotal: Recurring Cost	-	-	-	-	-	*13.836*	-	-	*56.726*	-	-	*22.256*	-	-	-	-	-	*22.256*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***13.836***	**-**	**-**	***56.726***	**-**	**-**	***22.256***	**-**	**-**	**-**	**-**	**-**	***22.256***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	0.545	-	-	2.770	-	-	1.267	-	-	-	-	-	1.267
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	***0.545***	**-**	**-**	***2.770***	**-**	**-**	***1.267***	**-**	**-**	**-**	**-**	**-**	***1.267***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	***0.005***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**14.386**	**-**	**-**	**59.496**	**-**	**-**	**23.523**	**-**	**-**	**-**	**-**	**-**	**23.523**

Remarks:
Unit price decrease from FY 2021 to FY 2023 due to higher quantities ordered in FY 2022 and FY 2023. Production Engineering increase from FY 2021 to FY 2022 due to increase in planned procurement quantity. Production Engineering decrease from FY 2022 to FY 2023 due to decrease in planned procurement quantity.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND(†)		2021	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Mar 2022	Mar 2023	4,364,763	3.17	N		
COMPLETE ROUND(†)		2022	TO BE SELECTED / TBS01	Option / FFP	PICATINNY ARSENAL, NJ	Mar 2022	Mar 2023	23,537,616	2.41	N		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	Option / FFP	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2024	8,304,515	2.68	N		

(†) indicates the presence of a P-21

Remarks:
Unit price decrease from FY 2021 to FY 2023 due to higher quantities ordered in FY 2022 and FY 2023.

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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																															
	1	2021	ARMY	4.365	.000	4.365						A -	-	-	-	-	-	-	-	-	-	-	-	.300	.370	.370	.370	.370	.370	.370	1.845
	1	2022	ARMY	23.538	.000	23.538						A -	-	-	-	-	-	-	-	-	-	-	-	1.961	1.961	1.961	1.961	1.961	1.961	1.961	9.807
	1	2023	ARMY	8.305	.000	8.305																		A -	-	-	-	-	-	-	8.305
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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																															
	1	2021	ARMY	4.365	2.520	1.845	.370	.370	.370	.370	.365																				.000
	1	2022	ARMY	23.538	13.730	9.807	1.961	1.961	1.961	1.961	1.961																				.000
	1	2023	ARMY	8.305	.000	8.305	-	-	-	-	-	.605	.700	.700	.700	.700	.700	.700	.700	.700	.700	.700	.700								.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	4.807	74.209	-	74.209
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	4.807	74.209	-	74.209
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**4.807**	**74.209**	**-**	**74.209**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	2.40	29,199,377	70.079	-	-	-	2.40	29,199,377	70.079
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*4.599*	-	-	*70.079*	-	-	-	-	-	*70.079*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***4.599***	**-**	**-**	***70.079***	**-**	**-**	**-**	**-**	**-**	***70.079***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.208	-	-	4.130	-	-	-	-	-	4.130
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.208***	**-**	**-**	***4.130***	**-**	**-**	**-**	**-**	**-**	***4.130***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.807**	**-**	**-**	**74.209**	**-**	**-**	**-**	**-**	**-**	**74.209**

Remarks:
Unit price decrease from FY 2022 to FY 2023 due to higher quantities ordered in FY 2023. Production Engineering increase from FY 2022 to FY 2023 due to increase in planned procurement quantity.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND(†)		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	1,839,793	2.50	N		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	29,199,377	2.40	N		

(†) indicates the presence of a P-21

Remarks:
Unit price decrease from FY 2022 to FY 2023 due to higher quantities ordered in FY 2023.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	1.840	.000	1.840						A -	-	-	-	-	-	-	-	-	-	-	-	.153	.153	.153	.153	.153	.153	.153	.767
	1	2023	ARMY	29.199	.000	29.199																		A -	-	-	-	-	-	-	29.199
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	1.840	1.073	.767	.153	.153	.153	.153	.153																				.000
	1	2023	ARMY	29.199	.000	29.199	-	-	-	-	-	2.433	2.433	2.433	2.433	2.433	2.433	2.433	2.433	2.433	2.433	2.433	2.433								.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	500,000	5,000,000	9,000,000	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	3.369	7.858	-	7.858
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	3.369	7.858	-	7.858
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**3.369**	**7.858**	**-**	**7.858**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	21.47	353,802	7.596	-	-	-	21.47	353,802	7.596
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*3.275*	-	-	*7.596*	-	-	-	-	-	*7.596*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.275***	**-**	**-**	***7.596***	**-**	**-**	**-**	**-**	**-**	***7.596***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.094	-	-	0.261	-	-	-	-	-	0.261
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.094***	**-**	**-**	***0.261***	**-**	**-**	**-**	**-**	**-**	***0.261***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3.369**	**-**	**-**	**7.858**	**-**	**-**	**-**	**-**	**-**	**7.858**

Remarks:
Unit price increase from FY 2022 to FY 2023 due to Ammunition costs are increasing greater than the historical inflation rates of 2-3%. Production Engineering increase from FY 2022 to FY 2023 due to increase in planned procurement quantity.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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

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
COMPLETE ROUND		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	162,631	20.14	N		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	353,802	21.47	N		

(†) indicates the presence of a P-21

Remarks:
Unit price increase from FY 2022 to FY 2023 due to Ammunition costs are increasing greater than the historical inflation rates of 2-3%, due to significant increases to metals and manufacturing labor costs.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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																															
	1	2023	ARMY	353.802	.000	353.802																		A -	-	-	-	-	-	-	353.802
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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

Cost Elements (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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																															
	1	2023	ARMY	353.802	.000	353.802	-	-	-	-	-	29.489	29.483	29.483	29.483	29.483	29.483	29.483	29.483	29.483	29.483	29.483	29.483								.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	100,000	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	3.562	23.072	-	23.072
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	3.562	23.072	-	23.072
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**3.562**	**23.072**	**-**	**23.072**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	1.47	14,805,952	21.765	-	-	-	1.47	14,805,952	21.765
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*3.322*	-	-	*21.765*	-	-	-	-	-	*21.765*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.322***	**-**	**-**	***21.765***	**-**	**-**	**-**	**-**	**-**	***21.765***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.240	-	-	1.307	-	-	-	-	-	1.307
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.240***	**-**	**-**	***1.307***	**-**	**-**	**-**	**-**	**-**	***1.307***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3.562**	**-**	**-**	**23.072**	**-**	**-**	**-**	**-**	**-**	**23.072**

Remarks:
Unit price decrease from FY 2022 to FY 2023 due to higher quantities ordered in FY 2023. Production Engineering increase from FY 2022 to FY 2023 due to increase in planned procurement quantity.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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

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
COMPLETE ROUND		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	2,143,225	1.55	N		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	14,805,952	1.47	N		

(†) indicates the presence of a P-21

Remarks:
Unit price decrease from FY 2022 to FY 2023 due to higher quantities ordered in FY 2023.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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																															
	1	2023	ARMY	14.806	.000	14.806																		A -	-	-	-	-	-	-	14.806
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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

Cost Elements (Units in Millions, * = < 500)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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																															
	1	2023	ARMY	14.806	.000	14.806	-	-	-	-	-	1.234	1.234	1.234	1.234	1.234	1.234	1.234	1.234	1.234	1.234	1.234	1.234								.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	500,000	3,000,000	9,000,000	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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	128.670	0.870	7.812	0.317	-	0.317	0.255	0.328	0.264	0.263	-	138.779
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	128.670	0.870	7.812	0.317	-	0.317	0.255	0.328	0.264	0.263	-	138.779
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**128.670**	**0.870**	**7.812**	**0.317**	**-**	**0.317**	**0.255**	**0.328**	**0.264**	**0.263**	**-**	**138.779**
(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 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

Justification:

FY 2023 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 2023 Total Base dollars in the amount of $0.317 million supports the procurement of 0.539 million cartridges.

(E05210) CTG 9MM BALL, M882 (Combat Pack) is a training standard item used in both training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base dollars in the amount of $0.018 million supports the COCOM requirement for procurement of 0.064 million M882 9mm Ball bullets to deter potential adversaries and support 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 request supports annual training and builds a depot level in accordance with the Army's procurement goals.
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 FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $0.299 million supports the procurement of 0.475 million 9mm Marking, M1041 (Blue) cartridges.
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

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,282.524	58.116	58.116	35.849	-	35.849	31.854	51.462	58.983	58.986	-	2,635.890
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,282.524	58.116	58.116	35.849	-	35.849	31.854	51.462	58.983	58.986	-	2,635.890
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,282.524**	**58.116**	**58.116**	**35.849**	**-**	**35.849**	**31.854**	**51.462**	**58.983**	**58.986**	**-**	**2,635.890**
(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 .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.

(E06903) CTG .50 Caliber M8/M20 Tracer, Armor Piercing Incendiary (API) linked 4 to 1 in a 100 cartridge belt with the M9 link for use in the M2, M2A1 and M3 Machine Gun. M8 is identified with a gray bullet tip. M20 is identified with a red bullet tip with gray annulus. 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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	

Exhibits Schedule					Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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		- / 5.664	- / 0.013	- / 0.013	- / 0.013	- / -	- / 0.013
P-5	E06903 / CTG, .50Cal Linked, 4 API M8/1 Tracer M20 w/M9Link		A		- / 397.279	- / -	- / -	- / 0.670	- / -	- / 0.670
P-5	E07100 / CTG, .50cal Ball, M2 w/ M33 Link [A555]	P-5a	A		- / 287.007	- / 10.064	- / 3.003	- / 0.181	- / -	- / 0.181
P-5	E07200 / CTG, .50cal 4 Ball M33 / 1 Tracer M17 w/M9 Link [A557]	P-5a, P-21	A		- / 1,459.216	- / 39.255	- / 52.318	- / 29.792	- / -	- / 29.792
P-5	E07302 / CTG, .50cal Blank, M1A1 w/M9 Link [A598]	P-5a	A		- / 127.647	- / 7.739	- / 2.782	- / 5.193	- / -	- / 5.193
P-5	E07900 / CTG, .50cal High Pressure Test, M1, Single Round [A575]		A		- / 5.711	- / 1.045	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**- / 2,282.524**	**- / 58.116**	**- / 58.116**	**- / 35.849**	**- / -**	**- / 35.849**

*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 2023 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.

FY2023 Base Budget supports the Minimum Sustaining Rates at both Lake City Army Ammunition Plant (LCAAP) as well as the Second Source facility in Oxford, MS.

FY 2023 Total Base procurement dollars in the amount of $35.849 million support procurement of 11.828 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.

(E06700) CTG .50 Caliber M8, Armor Piercing Incendiary (API) Cartridge is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $0.013 million support the COCOM requirement for the procurement of 0.003 million .50 Caliber M8 bullets to deter potential adversaries and support European Deterrence Initiative.
Type classification date: 1944

(E06903) CTG .50 Caliber M8/M20 Tracer, Armor Piercing Incendiary (API) 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 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $0.670 million supports the procurement of 0.193 million M33 .50 Caliber Ball Cartridges linked with M17 Tracer Cartridges. E06903 is a New Start in FY 2023
Type classification date: M8 1944, M17 1950, M20 1953.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

(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 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $0.181 million support the COCOM requirement for procurement of 0.060 million .50 Caliber Cartridge Ball M33 Cartridges to deter potential adversaries and support 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 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $29.792 million supports the procurement of 9.187 million M33 .50 Caliber Ball Cartridges linked with M17 Tracer Cartridges.
Type classification date: 1968

(E07302) CTG .50 Caliber Blank Cartridge, M1A1 linked with the M9 link. This is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $5.193 million supports the procurement of 2.385 million .50 Caliber Blank Cartridge, M1A1 Cartridges.
Type classification date: 1980

(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

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	5.664	0.013	0.013	0.013	-	0.013
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5.664	0.013	0.013	0.013	-	0.013
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5.664**	**0.013**	**0.013**	**0.013**	**-**	**0.013**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	1,032.63	5,485	5.664	2.37	5,474	0.013	2.92	4,078	0.012	2.96	2,537	0.008	-	-	-	2.96	2,537	0.008
Subtotal: Recurring Cost	-	-	*5.664*	-	-	*0.013*	-	-	*0.012*	-	-	*0.008*	-	-	-	-	-	*0.008*
Subtotal: Hardware Cost	**-**	**-**	***5.664***	**-**	**-**	***0.013***	**-**	**-**	***0.012***	**-**	**-**	***0.008***	**-**	**-**	**-**	**-**	**-**	***0.008***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	0.000	-	-	0.001	-	-	0.001	-	-	-	-	-	0.001
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.001***	**-**	**-**	***0.001***	**-**	**-**	**-**	**-**	**-**	***0.001***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	0.005	-	-	-	-	-	0.005
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.005***	**-**	**-**	**-**	**-**	**-**	***0.005***
Gross/Weapon System Cost	**-**	**-**	**5.664**	**-**	**-**	**0.013**	**-**	**-**	**0.013**	**-**	**-**	**0.013**	**-**	**-**	**-**	**-**	**-**	**0.013**

Remarks:
The price difference from FY 2021 through FY 2023 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2021 versus EPA allowable on contract in FY 2022 and FY 2023.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]:** E06903 / CTG, .50Cal Linked, 4 API M8/1 Tracer M20 w/M9Link

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	397.279	-	-	0.670	-	0.670
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	397.279	-	-	0.670	-	0.670
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**397.279**	**-**	**-**	**0.670**	**-**	**0.670**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	397.279	-	-	-	-	-	-	3.18	193,018	0.614	-	-	-	3.18	193,018	0.614
Subtotal: Recurring Cost	-	-	*397.279*	-	-	-	-	-	-	-	-	*0.614*	-	-	-	-	-	*0.614*
Subtotal: Hardware Cost	**-**	**-**	***397.279***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.614***	**-**	**-**	**-**	**-**	**-**	***0.614***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	-	-	-	0.054	-	-	-	-	-	0.054
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.054***	**-**	**-**	**-**	**-**	**-**	***0.054***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	0.001	-	-	-	-	-	0.001
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.001***	**-**	**-**	**-**	**-**	**-**	***0.001***
Gross/Weapon System Cost	**-**	**-**	**397.279**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.670**	**-**	**-**	**-**	**-**	**-**	**0.670**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	287.007	10.064	3.003	0.181	-	0.181
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	287.007	10.064	3.003	0.181	-	0.181
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**287.007**	**10.064**	**3.003**	**0.181**	**-**	**0.181**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	85.32	3,342,353	285.171	2.49	3,946,618	9.826	2.76	1,086,660	2.999	2.74	60,205	0.165	-	-	-	2.74	60,205	0.165
Subtotal: Recurring Cost	-	-	*285.170*	-	-	*9.827*	-	-	*2.999*	-	-	*0.165*	-	-	-	-	-	*0.165*
Subtotal: Hardware Cost	**-**	**-**	***285.170***	**-**	**-**	***9.827***	**-**	**-**	***2.999***	**-**	**-**	***0.165***	**-**	**-**	**-**	**-**	**-**	***0.165***
Support - Production Engineering Cost																		
Production Engineering	-	-	1.837	-	-	0.255	-	-	0.001	-	-	0.016	-	-	-	-	-	0.016
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.837***	**-**	**-**	***0.255***	**-**	**-**	***0.001***	**-**	**-**	***0.016***	**-**	**-**	**-**	**-**	**-**	***0.016***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.000	-	-	0.002	-	-	-	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.000***	**-**	**-**	***0.002***	**-**	**-**	**-**	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**287.007**	**-**	**-**	**10.064**	**-**	**-**	**3.003**	**-**	**-**	**0.181**	**-**	**-**	**-**	**-**	**-**	**0.181**

Remarks:
The price difference from FY 2021 through FY 2023 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2021 versus EPA allowable on contract in FY 2022 and FY 2023. 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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND		2021	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Oct 2021	581,336	2.49	Y		
COMPLETE ROUND		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Oct 2021	3,365,282	2.48	Y		
COMPLETE ROUND		2022	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Feb 2022	Mar 2023	162,999	2.76	Y		
COMPLETE ROUND		2022	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Apr 2023	923,661	2.76	Y		
COMPLETE ROUND		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Apr 2024	60,205	2.74	Y		

Remarks:
The price difference from FY 2021 through FY 2023 is due to the step lad der pricing matrix based on quantity ranges, as well as the actual negot iated Economic Price Adjustment (EPA) in FY 2021 versus EPA allowable on contract in FY 2022 and FY 2023. The price difference from FY 2021 through FY 2023 is due to the step lad der pricing matrix based on quantity ranges, as well as the actual negot iated Economic Price Adjustment (EPA) in FY 2021 versus EPA allowable on contract in FY 2022 and FY 2023.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,459.216	39.255	52.318	29.792	-	29.792
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,459.216	39.255	52.318	29.792	-	29.792
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,459.216**	**39.255**	**52.318**	**29.792**	**-**	**29.792**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	2.60	546,496K	1,421.009	2.96	12,850,979	38.039	2.98	16,882,251	50.309	2.95	9,187,129	27.102	-	-	-	2.95	9,187,129	27.102
Subtotal: Recurring Cost	-	-	*1,420.891*	-	-	*38.039*	-	-	*50.309*	-	-	*27.102*	-	-	-	-	-	*27.102*
Subtotal: Hardware Cost	**-**	**-**	***1,420.891***	**-**	**-**	***38.039***	**-**	**-**	***50.309***	**-**	**-**	***27.102***	**-**	**-**	**-**	**-**	**-**	***27.102***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.117	-	-	-	-	-	0.117
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.117***	**-**	**-**	**-**	**-**	**-**	***0.117***
Support - Production Engineering Cost																		
Production Engineering	-	-	38.037	-	-	1.212	-	-	2.082	-	-	2.570	-	-	-	-	-	2.570
Subtotal: Support - Production Engineering Cost	**-**	**-**	***38.037***	**-**	**-**	***1.212***	**-**	**-**	***2.082***	**-**	**-**	***2.570***	**-**	**-**	**-**	**-**	**-**	***2.570***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.088	-	-	0.004	-	-	0.003	-	-	0.003	-	-	-	-	-	0.003
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.088***	**-**	**-**	***0.004***	**-**	**-**	***0.003***	**-**	**-**	***0.003***	**-**	**-**	**-**	**-**	**-**	***0.003***
Gross/Weapon System Cost	**-**	**-**	**1,459.216**	**-**	**-**	**39.255**	**-**	**-**	**52.318**	**-**	**-**	**29.792**	**-**	**-**	**-**	**-**	**-**	**29.792**

Remarks:

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**

The price difference from FY 2021 through FY 2023 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2021 versus EPA allowable on contract in FY 2022 and FY 2023. The 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.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND(†)		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Oct 2021	10,923,332	2.96	Y		
COMPLETE ROUND(†)		2021	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2021	1,927,647	2.96	Y		
COMPLETE ROUND(†)		2022	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Apr 2023	14,349,913	2.98	Y		
COMPLETE ROUND(†)		2022	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Feb 2022	Mar 2023	2,532,338	2.98	Y		
COMPLETE ROUND(†)		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Apr 2024	7,809,060	2.95	Y		
COMPLETE ROUND(†)		2023	OLIN CORPORATION WINCHESTER / OXFORD, MS	Option / FFP	ROCK ISLAND ARSENAL, IL	Feb 2023	Mar 2024	1,378,069	2.95	Y		

(†) indicates the presence of a P-21

Remarks:
The price difference from FY 2021 through FY 2023 is due to the step lad der pricing matrix based on quantity ranges, as well as the actual negot iated Economic Price Adjustment (EPA) in FY 2021 versus EPA allowable on contract in FY 2022 and FY 2023. FY2022 and FY 2023 complete round is an average unit cost between two contractors. The quantity split will b e determined between the two contractors in the year of execution.

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 546496478																															
	1	2021	AF (‡)	1.021	.000	1.021						A -	-	-	-	-	-	.085	.085	.085	.085	.085	.085	.085	.085	.085	.085	.085	.085		.000
	1	2021	ARMY	10.923	.000	10.923						A -	-	-	-	-	-	-	.910	.910	.910	.910	.910	.910	.910	.910	.910	.910	.910		.910
	1	2021	NAVSEA (‡)	2.324	.000	2.324						A -	-	-	-	-	-	.194	.194	.194	.194	.194	.194	.194	.194	.194	.194	.194	.194		.000
	1	**2021**	**Total**	**13.357**	**.000**	**13.357**						**-**	**-**	**-**	**-**	**-**	**-**	**.279**	**1.189**	**1.189**	**1.189**	**1.189**	**1.189**	**1.189**	**1.189**	**1.189**	**1.189**	**1.189**	**1.189**	**-**	**.000**
	2	2021	ARMY	1.928	.000	1.928						A -	-	-	-	-	-	.161	.161	.161	.161	.161	.161	.161	.161	.161	.161	.161	.161		.000
	1	2022	AF (‡)	.945	.000	.945																		A -	-	-	-	-	-	-	.945
	1	2022	ARMY	14.350	.000	14.350																		A -	-	-	-	-	-	-	14.350
	1	2022	CG (‡)	.067	.000	.067																		A -	-	-	-	-	-	-	.067
	1	2022	NAVSEA (‡)	2.856	.000	2.856																		A -	-	-	-	-	-	-	2.856
	1	2022	NSOF (‡)	.089	.000	.089																		A -	-	-	-	-	-	-	.089
	1	**2022**	**Total**	**18.307**	**.000**	**18.307**																		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**18.307**
	2	2022	AF (‡)	.167	.000	.167																	A -	-	-	-	-	-	-	-	.167
	2	2022	ARMY	2.532	.000	2.532																	A -	-	-	-	-	-	-	-	2.532
	2	2022	NAVSEA (‡)	.504	.000	.504																	A -	-	-	-	-	-	-	-	.504
	2	2022	NSOF (‡)	.016	.000	.016																	A -	-	-	-	-	-	-	-	.016
	2	**2022**	**Total**	**3.219**	**.000**	**3.219**																	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3.219**
	1	2023	AF (‡)	.918	.000	.918																									.918
	1	2023	ARMY	7.809	.000	7.809																									7.809
	1	2023	CG (‡)	.067	.000	.067																									.067
	1	2023	NAVSEA (‡)	3.203	.000	3.203																									3.203
	1	2023	NSOF (‡)	.170	.000	.170																									.170
	1	**2023**	**Total**	**12.167**	**.000**	**12.167**																									**12.167**
	2	2023	AF (‡)	.162	.000	.162																									.162
	2	2023	ARMY	1.378	.000	1.378																									1.378
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	2	2023	CG (‡)	.012	.000	.012																									.012
	2	2023	NAVSEA (‡)	.565	.000	.565																									.565
	2	2023	NSOF (‡)	.030	.000	.030																									.030
	2	**2023**	**Total**	**2.147**	**.000**	**2.147**																									**2.147**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army | **Date:** April 2022

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 (Units in Millions, * = < 500)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 546496478																															
	1	2021	AF (‡)	1.021	1.021	.000																									.000
	1	2021	ARMY	10.923	10.013	.910																									.910
	1	2021	NAVSEA (‡)	2.324	2.324	.000																									.000
	1	**2021**	**Total**	**13.357**	**13.357**	**.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	2	2021	ARMY	1.928	1.928	.000																									.000
	1	2022	AF (‡)	.945	.000	.945	-	-	-	-	-	-	.079	.079	.079	.079	.079	.079	.079	.079	.079	.079	.079	.079							.000
	1	2022	ARMY	14.350	.000	14.350	-	-	-	-	-	-	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196							.000
	1	2022	CG (‡)	.067	.000	.067	-	-	-	-	-	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	-							.000
	1	2022	NAVSEA (‡)	2.856	.000	2.856	-	-	-	-	-	-	.238	.238	.238	.238	.238	.238	.238	.238	.238	.238	.238	.238							.000
	1	2022	NSOF (‡)	.089	.000	.089	-	-	-	-	-	-	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007							.000
	1	**2022**	**Total**	**18.307**	**.000**	**18.307**	**-**	**-**	**-**	**-**	**-**	**.006**	**1.526**	**1.526**	**1.526**	**1.526**	**1.526**	**1.526**	**1.526**	**1.526**	**1.526**	**1.526**	**1.526**	**1.520**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	2	2022	AF (‡)	.167	.000	.167	-	-	-	-	-	.014	.014	.014	.014	.014	.014	.014	.014	.014	.014	.014	.014								.000
	2	2022	ARMY	2.532	.000	2.532	-	-	-	-	-	.211	.211	.211	.211	.211	.211	.211	.211	.211	.211	.211	.211								.000
	2	2022	NAVSEA (‡)	.504	.000	.504	-	-	-	-	-	.042	.042	.042	.042	.042	.042	.042	.042	.042	.042	.042	.042								.000
	2	2022	NSOF (‡)	.016	.000	.016	-	-	-	-	-	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001								.000
	2	**2022**	**Total**	**3.219**	**.000**	**3.219**	**-**	**-**	**-**	**-**	**-**	**.268**	**.268**	**.268**	**.268**	**.268**	**.268**	**.268**	**.268**	**.268**	**.268**	**.268**	**.268**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2023	AF (‡)	.918	.000	.918						A -	-	-	-	-	-	-	-	-	-	-	-	-	.076	.076	.076	.076	.076	.076	.459
	1	2023	ARMY	7.809	.000	7.809						A -	-	-	-	-	-	-	-	-	-	-	-	-	.651	.651	.651	.651	.651	.651	3.905
	1	2023	CG (‡)	.067	.000	.067						A -	-	-	-	-	-	-	-	-	-	-	-	-	.006	.006	.006	.006	.006	.006	.034
	1	2023	NAVSEA (‡)	3.203	.000	3.203						A -	-	-	-	-	-	-	-	-	-	-	-	-	.267	.267	.267	.267	.267	.267	1.601
	1	2023	NSOF (‡)	.170	.000	.170						A -	-	-	-	-	-	-	-	-	-	-	-	-	.014	.014	.014	.014	.014	.014	.085
	1	**2023**	**Total**	**12.167**	**.000**	**12.167**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.014**	**1.014**	**1.014**	**1.014**	**1.014**	**1.014**	**6.084**
	2	2023	AF (‡)	.162	.000	.162					A -	-	-	-	-	-	-	-	-	-	-	-	-	.014	.013	.013	.013	.013	.013	.013	.067
	2	2023	ARMY	1.378	.000	1.378					A -	-	-	-	-	-	-	-	-	-	-	-	-	.115	.115	.115	.115	.115	.115	.115	.574
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	2	2023	CG (‡)	.012	.000	.012					A -	-	-	-	-	-	-	-	-	-	-	-	-	*	*	*	*	*	*	*	.005
	2	2023	NAVSEA (‡)	.565	.000	.565					A -	-	-	-	-	-	-	-	-	-	-	-	-	.047	.047	.047	.047	.047	.047	.047	.236
	2	2023	NSOF (‡)	.030	.000	.030					A -	-	-	-	-	-	-	-	-	-	-	-	-	.002	.002	.002	.002	.002	.002	.002	.012
	2	**2023**	**Total**	**2.147**	**.000**	**2.147**					**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.179**	**.179**	**.179**	**.179**	**.179**	**.179**	**.179**	**.895**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 546496478																															
	1	2021	AF (‡)	1.021	1.021	.000																									.000
	1	2021	ARMY	10.923	10.013	.910																									.910
	1	2021	NAVSEA (‡)	2.324	2.324	.000																									.000
	1	**2021**	**Total**	**13.357**	**13.357**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	2	2021	ARMY	1.928	1.928	.000																									.000
	1	2022	AF (‡)	.945	.945	.000																									.000
	1	2022	ARMY	14.350	14.350	.000																									.000
	1	2022	CG (‡)	.067	.067	.000																									.000
	1	2022	NAVSEA (‡)	2.856	2.856	.000																									.000
	1	2022	NSOF (‡)	.089	.089	.000																									.000
	1	**2022**	**Total**	**18.307**	**18.307**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	2	2022	AF (‡)	.167	.167	.000																									.000
	2	2022	ARMY	2.532	2.532	.000																									.000
	2	2022	NAVSEA (‡)	.504	.504	.000																									.000
	2	2022	NSOF (‡)	.016	.016	.000																									.000
	2	**2022**	**Total**	**3.219**	**3.219**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	1	2023	AF (‡)	.918	.459	.459	.076	.076	.076	.076	.076	.076																			.000
	1	2023	ARMY	7.809	3.905	3.905	.651	.651	.651	.651	.651	.651																			.000
	1	2023	CG (‡)	.067	.034	.034	.006	.006	.006	.006	.006	.006																			.000
	1	2023	NAVSEA (‡)	3.203	1.601	1.601	.267	.267	.267	.267	.267	.267																			.000
	1	2023	NSOF (‡)	.170	.085	.085	.014	.014	.014	.014	.014	.014																			.000
	1	**2023**	**Total**	**12.167**	**6.084**	**6.084**	**1.014**	**1.014**	**1.014**	**1.014**	**1.014**	**1.014**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	2	2023	AF (‡)	.162	.094	.067	.013	.013	.013	.013	.013																				.000
	2	2023	ARMY	1.378	.804	.574	.115	.115	.115	.115	.115																				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	2	2023	CG (‡)	.012	.007	.005	*	*	*	*	*																				.000
	2	2023	NAVSEA (‡)	.565	.330	.236	.047	.047	.047	.047	.047																				.000
	2	2023	NSOF (‡)	.030	.018	.012	.002	.002	.002	.002	.002																				.000
	2	**2023**	**Total**	**2.147**	**1.253**	**.895**	**.179**	**.179**	**.179**	**.179**	**.179**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	18	24	6	6	13	19
2	OLIN CORPORATION WINCHESTER - OXFORD, MS	1,680	19,400,000	67,500,000	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 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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	127.647	7.739	2.782	5.193	-	5.193
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	127.647	7.739	2.782	5.193	-	5.193
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**127.647**	**7.739**	**2.782**	**5.193**	**-**	**5.193**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	119,559K	123.744	1.66	4,352,757	7.226	1.94	1,154,974	2.241	1.93	2,384,683	4.602	-	-	-	1.93	2,384,683	4.602
Subtotal: Recurring Cost	-	-	*123.744*	-	-	*7.226*	-	-	*2.241*	-	-	*4.602*	-	-	-	-	-	*4.602*
Subtotal: Hardware Cost	**-**	**-**	***123.744***	**-**	**-**	***7.226***	**-**	**-**	***2.241***	**-**	**-**	***4.602***	**-**	**-**	**-**	**-**	**-**	***4.602***
Support - Production Engineering Cost																		
Production Engineering	-	-	3.895	-	-	0.505	-	-	0.531	-	-	0.584	-	-	-	-	-	0.584
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.895***	**-**	**-**	***0.505***	**-**	**-**	***0.531***	**-**	**-**	***0.584***	**-**	**-**	**-**	**-**	**-**	***0.584***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.008	-	-	0.008	-	-	0.007	-	-	0.007	-	-	-	-	-	0.007
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.008***	**-**	**-**	***0.008***	**-**	**-**	***0.007***	**-**	**-**	***0.007***	**-**	**-**	**-**	**-**	**-**	***0.007***
Gross/Weapon System Cost	**-**	**-**	**127.647**	**-**	**-**	**7.739**	**-**	**-**	**2.782**	**-**	**-**	**5.193**	**-**	**-**	**-**	**-**	**-**	**5.193**

Remarks:
The price difference from FY 2021 through FY 2023 is due to the step ladder pricing matrix based on quantity ranges, as well as the actual negotiated Economic Price Adjustment (EPA) in FY 2021 versus EPA allowable on contract in FY 2022 and FY 2023.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
Complete Round		2021	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Oct 2021	4,352,757	1.66	Y		
Complete Round		2022	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Apr 2023	1,154,974	1.94	Y		
Complete Round		2023	OLIN WINCHESTER, LLC - LCAAP / INDEPENDENCE, MO	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Apr 2024	2,384,683	1.93	Y		

Remarks:
The price difference from FY 2021 through FY 2023 is due to the step lad der pricing matrix based on quantity ranges, as well as the actual negot iated Economic Price Adjustment (EPA) in FY 2021 versus EPA allowable on contract in FY 2022 and FY 2023.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	255,823	1.026	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*5.183*	-	-	*1.026*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***5.183***	**-**	**-**	***1.026***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.528	-	-	0.019	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.528***	**-**	**-**	***0.019***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**5.711**	**-**	**-**	**1.045**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	188.104	31.708	4.371	11.761	-	11.761	11.503	8.355	9.438	9.438	-	274.678
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	188.104	31.708	4.371	11.761	-	11.761	11.503	8.355	9.438	9.438	-	274.678
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**188.104**	**31.708**	**4.371**	**11.761**	**-**	**11.761**	**11.503**	**8.355**	**9.438**	**9.438**	**-**	**274.678**
(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 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 of a single tungsten penetrator tip 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 fired from the M61 cannon used within 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 M940 (JUONs) has been enhanced for improved lethality against larger rocket threats. This item is Code A, approved for service use.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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

Exhibits Schedule					Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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	E08909 / CTG, 20mm MPT-SD, M940 w/MK7 Link [AC34]	P-5a, P-21	A		- / 188.104	- / 31.708	- / 4.371	- / 11.761	- / -	- / 11.761
P-40	**Total Gross/Weapon System Cost**				**- / 188.104**	**- / 31.708**	**- / 4.371**	**- / 11.761**	**- / -**	**- / 11.761**

*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 2023 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 2023 Total Base procurement dollars in the amount of $11.761 million support procurement of 0.092 million cartridges.

(E08909) The 20MM M940 Multi-Purpose Tracer - Self-Destruct (MPT-SD) is a war reserve item used in combat. The FY 2023 request builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $11.761 million support procurement of 0.092 million M940 cartridges.
Type classification date: 1989

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2382E08900 / CTG, 20mm, All Types	**Item Number / Title [DODIC]:** E08909 / CTG, 20mm MPT-SD, M940 w/ MK7 Link [AC34]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	188.104	31.708	4.371	11.761	-	11.761
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	188.104	31.708	4.371	11.761	-	11.761
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**188.104**	**31.708**	**4.371**	**11.761**	**-**	**11.761**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	34.28	4,979,866	170.714	52.64	529,580	27.877	105.70	28,082	2.968	109.37	92,444	10.111	-	-	-	109.37	92,444	10.111
BOX METAL M548(†)	46.10	13,359	0.616	46.71	249	0.012	52.30	286	0.015	53.57	943	0.051	-	-	-	53.57	943	0.051
Subtotal: Recurring Cost	-	-	*171.331*	-	-	*27.889*	-	-	*2.983*	-	-	*10.161*	-	-	-	-	-	*10.161*
Subtotal: Hardware Cost	**-**	**-**	***171.331***	**-**	**-**	***27.889***	**-**	**-**	***2.983***	**-**	**-**	***10.161***	**-**	**-**	**-**	**-**	**-**	***10.161***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.010	-	-	-	-	-	0.010
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.010***	**-**	**-**	**-**	**-**	**-**	***0.010***
Support - Product Improvement Cost																		
Safety	-	-	4.651	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reliability	-	-	-	-	-	1.777	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***4.651***	**-**	**-**	***1.777***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	12.080	-	-	2.034	-	-	1.384	-	-	1.586	-	-	-	-	-	1.586
Subtotal: Support - Production Engineering Cost	**-**	**-**	***12.080***	**-**	**-**	***2.034***	**-**	**-**	***1.384***	**-**	**-**	***1.586***	**-**	**-**	**-**	**-**	**-**	***1.586***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.043	-	-	0.008	-	-	0.004	-	-	0.004	-	-	-	-	-	0.004

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2382E08900 / CTG, 20mm, All Types	**Item Number / Title [DODIC]:** E08909 / CTG, 20mm MPT-SD, M940 w/ MK7 Link [AC34]
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	***0.043***	-	-	***0.008***	-	-	***0.004***	-	-	***0.004***	-	-	-	-	-	***0.004***
Gross/Weapon System Cost	-	-	**188.104**	-	-	**31.708**	-	-	**4.371**	-	-	**11.761**	-	-	-	-	-	**11.761**

Remarks:
The price difference between FY 2021, FY 2022, and FY 2023 is due to fluctuation in quantities. The much lower quantities in FY 2022 and FY 2023 will be in higher price ranges on the contract. Ammunition costs are increasing greater than the historical inflation rates of 2-3%, due to significant increases to metals and manufacturing labor costs.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	P-1 Line Item Number / Title: 2382E08900 / CTG, 20mm, All Types	Item Number / Title [DODIC]: E08909 / CTG, 20mm MPT-SD, M940 w/ MK7 Link [AC34]

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)(†)		2021	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	264,790	52.64	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2021	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	264,790	52.64	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2022	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	14,041	105.70	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2022	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	14,041	105.70	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	46,222	109.37	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	46,222	109.37	Y		
BOX METAL M548		2021	CONCO INC. / LOUISVILLE, KY	Option / FFP	ROCK ISLAND ARSENAL, IL	Aug 2021	Mar 2022	249	46.71	Y		
BOX METAL M548		2022	CONCO INC. / LOUISVILLE, KY	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Nov 2022	286	52.30	Y		
BOX METAL M548		2023	CONCO INC. / LOUISVILLE, KY	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Nov 2023	943	53.57	Y		

(†) indicates the presence of a P-21

Remarks:
This item 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.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2382E08900 / CTG, 20mm, All Types	**Item Number / Title [DODIC]:** E08909 / CTG, 20mm MPT-SD, M940 w/ MK7 Link [AC34]

Cost Elements (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 4979866																															
	1	2021	ARMY	264.790	.000	264.790						A -	-	-	-	-	-	-	-	-	-	-	-	70.000	18.250	18.250	18.250	18.250	18.250	57.722	45.818
	2	2021	ARMY	264.790	.000	264.790						A -	-	-	-	-	-	-	-	-	-	-	-	40.000	40.000	40.000	40.000	40.000	40.000	24.790	.000
	1	2022	ARMY	14.041	.000	14.041																		A -	-	-	-	-	-	-	14.041
	2	2022	ARMY	14.041	.000	14.041																		A -	-	-	-	-	-	-	14.041
	1	2023	ARMY	46.222	.000	46.222																									46.222
	2	2023	ARMY	46.222	.000	46.222																									46.222
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2382E08900 / CTG, 20mm, All Types	**Item Number / Title [DODIC]:** E08909 / CTG, 20mm MPT-SD, M940 w/ MK7 Link [AC34]

Cost Elements (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 4979866																															
	1	2021	ARMY	264.790	218.972	45.818	45.818																								.000
	2	2021	ARMY	264.790	264.790	.000																									.000
	1	2022	ARMY	14.041	.000	14.041	-	-	-	-	-	14.041																			.000
	2	2022	ARMY	14.041	.000	14.041	-	-	-	-	-	14.041																			.000
	1	2023	ARMY	46.222	.000	46.222						A -	-	-	-	-	-	-	-	-	-	-	-	3.861	3.851	3.851	3.851	3.851	3.851	3.851	19.255
	2	2023	ARMY	46.222	.000	46.222						A -	-	-	-	-	-	-	-	-	-	-	-	3.861	3.851	3.851	3.851	3.851	3.851	3.851	19.255
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2382E08900 / CTG, 20mm, All Types	**Item Number / Title [DODIC]:** E08909 / CTG, 20mm MPT-SD, M940 w/ MK7 Link [AC34]

Cost Elements (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 4979866																															
	1	2021	ARMY	264.790	264.790	.000																									.000
	2	2021	ARMY	264.790	264.790	.000																									.000
	1	2022	ARMY	14.041	14.041	.000																									.000
	2	2022	ARMY	14.041	14.041	.000																									.000
	1	2023	ARMY	46.222	26.967	19.255	3.851	3.851	3.851	3.851	3.851																				.000
	2	2023	ARMY	46.222	26.967	19.255	3.851	3.851	3.851	3.851	3.851																				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2382E08900 / CTG, 20mm, All Types	**Item Number / Title [DODIC]:** E08909 / CTG, 20mm MPT-SD, M940 w/ MK7 Link [AC34]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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 & TAC - MARION, IL	1,000	70,000	120,000	6	6	12	18	6	6	12	18
2	NORTHROP GRUMMAN INNOVATION - PLYMOUTH, MN	1,000	40,000	90,000	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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	899.870	9.111	-	10.270	-	10.270	18.808	13.911	13.791	13.791	-	979.552
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	899.870	9.111	-	10.270	-	10.270	18.808	13.911	13.791	13.791	-	979.552
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**899.870**	**9.111**	**-**	**10.270**	**-**	**10.270**	**18.808**	**13.911**	**13.791**	**13.791**	**-**	**979.552**
(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 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.

(E08204) The 25MM M910 Target Practice Discarding Sabot-Tracer (TPDS-T) cartridge is a ballistically matched training round that simulates the M791 25MM Armor Piercing Discarding Sabot-Tracer (APDS-T) cartridge. The M910 is also used as a training counterpart for the M919 25MM Armor Piercing Discarding Sabot Fin Stabilized-Traced (APDSFS-T) cartridge, although the M910 cannot simulate the range of the M919. The M910 supports gunnery training for the Army's Bradley Fighting Vehicles and Marine Corps' Light Armored Vehicles. The M910 is a percussion primed round, packed in linked belts of 30 cartridges per PA125 container. The M28 metal link is used to belt M910 cartridges. This item is Code A, approved for service use.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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

Exhibits Schedule					Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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	E08203 / CTG, 25mm TP-T, M793 w/M28 Link [A976]		A		- / 469.148	- / 9.111	- / -	- / -	- / -	- / -
P-5	E08204 / CTG 25MM TPDS-T M910 [A940]	P-5a, P-21	A		- / 430.722	- / -	- / -	- / 10.270	- / -	- / 10.270
P-40	**Total Gross/Weapon System Cost**				**- / 899.870**	**- / 9.111**	**- / -**	**- / 10.270**	**- / -**	**- / 10.270**

*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 2023 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 2023 Total Base dollars in the amount of $10.270 million supports the procurement of 0.132 million cartridges.

(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

(E08204) The 25MM M910 Target Practice Discarding Sabot-Tracer (TPDS-T) cartridge is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $10.270 million supports the procurement of 0.132 million M910 cartridges.
E08204 is a new start in FY 2023.
Type classification date: 1988

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2650E08200 / CTG, 25mm, All Types	**Item Number / Title [DODIC]:** E08203 / CTG, 25mm TP-T, M793 w/ M28 Link [A976]

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	469.148	9.111	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	469.148	9.111	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**469.148**	**9.111**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)	21.44	21,699,686	465.212	27.06	292,467	7.914	-	-	-	-	-	-	-	-	-	-	-	-
CONTAINER PA125	71.59	34,714	2.485	89.26	9,885	0.882	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*467.705*	-	-	*8.796*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***467.705***	**-**	**-**	***8.796***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.012***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Data Cost																		
Technical Publications	-	-	-	-	-	0.040	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Data Cost	**-**	**-**	**-**	**-**	**-**	***0.040***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	1.424	-	-	0.269	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.424***	**-**	**-**	***0.269***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.015	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.015***	**-**	**-**	***0.005***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2650E08200 / CTG, 25mm, All Types	**Item Number / Title [DODIC]:** E08203 / CTG, 25mm TP-T, M793 w/ M28 Link [A976]
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	469.148	-	-	9.111	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	P-1 Line Item Number / Title: 2650E08200 / CTG, 25mm, All Types	Item Number / Title [DODIC]: E08204 / CTG 25MM TPDS-T M910 [A940]
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	430.722	-	-	10.270	-	10.270
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	430.722	-	-	10.270	-	10.270
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**430.722**	**-**	**-**	**10.270**	**-**	**10.270**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	46.07	9,289,896	427.960	-	-	-	-	-	-	68.05	132,262	9.000	-	-	-	68.05	132,262	9.000
CONTAINER PA125(†)	68.63	21,202	1.455	-	-	-	-	-	-	99.47	4,470	0.445	-	-	-	99.47	4,470	0.445
Subtotal: Recurring Cost	-	-	*429.413*	-	-	-	-	-	-	-	-	*9.445*	-	-	-	-	-	*9.445*
Subtotal: Hardware Cost	**-**	**-**	***429.413***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***9.445***	**-**	**-**	**-**	**-**	**-**	***9.445***
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.483	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.483***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.814	-	-	-	-	-	-	-	-	0.821	-	-	-	-	-	0.821
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.814***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.821***	**-**	**-**	**-**	**-**	**-**	***0.821***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.016	-	-	-	-	-	-	-	-	0.003	-	-	-	-	-	0.003
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.016***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.003***	**-**	**-**	**-**	**-**	**-**	***0.003***
Gross/Weapon System Cost	**-**	**-**	**430.722**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**10.270**	**-**	**-**	**-**	**-**	**-**	**10.270**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2650E08200 / CTG, 25mm, All Types	**Item Number / Title [DODIC]:** E08204 / CTG 25MM TPDS-T M910 [A940]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Remarks:
This item was last procured in FY 2018 for a much higher quantity in a lower price range. The lower FY 2023 quantity will be in a higher price range on the contract.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2650E08200 / CTG, 25mm, All Types	**Item Number / Title [DODIC]:** E08204 / CTG 25MM TPDS-T M910 [A940]

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)(†)		2023	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	66,131	68.05	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	66,131	68.05	Y		
CONTAINER PA125		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Nov 2023	4,470	99.47	Y		

(†) indicates the presence of a P-21

Remarks:
This item 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.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2650E08200 / CTG, 25mm, All Types	**Item Number / Title [DODIC]:** E08204 / CTG 25MM TPDS-T M910 [A940]

Cost Elements (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 9289896																															
	1	2023	ARMY	66.131	.000	66.131						A -	-	-	-	-	-	-	-	-	-	-	-	5.521	5.510	5.510	5.510	5.510	5.510	5.510	27.550
	1	2023	MC (‡)	6.719	.000	6.719						A -	-	-	-	-	-	-	-	-	-	-	-	.570	.559	.559	.559	.559	.559	.559	2.795
	1	**2023**	**Total**	**72.850**	**.000**	**72.850**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.091**	**6.069**	**6.069**	**6.069**	**6.069**	**6.069**	**6.069**	**30.345**
	2	2023	ARMY	66.131	.000	66.131						A -	-	-	-	-	-	-	-	-	-	-	-	5.521	5.510	5.510	5.510	5.510	5.510	5.510	27.550
	2	2023	MC (‡)	6.719	.000	6.719						A -	-	-	-	-	-	-	-	-	-	-	-	.570	.559	.559	.559	.559	.559	.559	2.795
	2	**2023**	**Total**	**72.850**	**.000**	**72.850**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.091**	**6.069**	**6.069**	**6.069**	**6.069**	**6.069**	**6.069**	**30.345**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2650E08200 / CTG, 25mm, All Types	**Item Number / Title [DODIC]:** E08204 / CTG 25MM TPDS-T M910 [A940]

Cost Elements (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 9289896																															
	1	2023	ARMY	66.131	38.581	27.550	5.510	5.510	5.510	5.510	5.510																				.000
	1	2023	MC (‡)	6.719	3.924	2.795	.559	.559	.559	.559	.559																				.000
	1	**2023**	**Total**	**72.850**	**42.505**	**30.345**	**6.069**	**6.069**	**6.069**	**6.069**	**6.069**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	2	2023	ARMY	66.131	38.581	27.550	5.510	5.510	5.510	5.510	5.510																				.000
	2	2023	MC (‡)	6.719	3.924	2.795	.559	.559	.559	.559	.559																				.000
	2	**2023**	**Total**	**72.850**	**42.505**	**30.345**	**6.069**	**6.069**	**6.069**	**6.069**	**6.069**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30	**P-1 Line Item Number / Title:** 2650E08200 / CTG, 25mm, All Types	**Item Number / Title [DODIC]:** E08204 / CTG 25MM TPDS-T M910 [A940]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	20,000	100,000	125,000	6	6	12	18	6	6	12	18
2	GENERAL DYNAMICS ORD & TAC - MARION, IL	20,000	100,000	125,000	6	6	12	18	6	6	12	18

Remarks:
LAP LINE SHARED WITH OTHER 25MM ITEMS. QUARTERLY DELIVERIES.

(‡) 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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,692.169	30.932	45.450	143.045	-	143.045	208.084	199.168	200.000	199.041	-	2,717.889
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,692.169	30.932	45.450	143.045	-	143.045	208.084	199.168	200.000	199.041	-	2,717.889
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,692.169**	**30.932**	**45.450**	**143.045**	**-**	**143.045**	**208.084**	**199.168**	**200.000**	**199.041**	**-**	**2,717.889**
(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 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 completed the safety qualification of the MK239, which supported the Urgent Materiel Release (UMR) for the Stryker Infantry Carrier Vehicle, in support of the United States Army Europe (USAREUR) Operational Needs Statement (ONS) #15-20590 Stryker Increased Lethality for the 2nd Cavalry Regiment (2CR). In FY 2023, as a follow-on to the earlier UMR round, the program will transition to the Program of Record (POR), the 30x173mm XM1173 Target Practice with Trace (TP-T) cartridge, which is ballistically matched to the tactical round, the XM1182 HEAB-T cartridge, allowing the Warfighter to train in a realistic, cost effective manner. The XM1173 TP-T is scheduled to transition from Engineering Manufacturing Development (EMD) to Milestone C in the 1st Quarter of FY 2023 and Low Rate Initial Production (LRIP) in the 2nd Quarter of FY 2023. 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 completed the safety qualification of the MK310, which supported the Urgent Materiel Release (UMR) for the Stryker Infantry Carrier Vehicle, in support of the United States Army Europe (USAREUR) Operational Needs Statement (ONS) #15-20590 Stryker Increased Lethality for the 2nd Cavalry Regiment (2CR). In FY 2023, as a follow-on to the earlier UMR round, the program will transition to the Program of Record (POR), the 30x173mm XM1182 High Explosive Airburst with Trace (HEAB-T), which will provide the Warfighter with increased anti-personnel lethality effects against troops in the open and behind urban structures, counter defilade capability, and Anti-Tank Guided Missile (ATGM) capability, enhancing the operational effectiveness and lethality of the Stryker Infantry Carrier Vehicle (ICV), Next Generation Combat Vehicle (NGCV), and any Army Fighting Vehicles that are equipped with a 30x173mm weapon system. The XM1182 HEAB-T is scheduled to transition from Engineering Manufacturing Development (EMD) to Milestone C in the 1st Quarter of FY 2023 and Low Rate Initial Production (LRIP) in the 2nd Quarter of FY 2023. This item is Code B, not approved for service use.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

(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 completed the safety qualification of the MK317, which supported the Urgent Materiel Release (UMR) for the Stryker Infantry Carrier Vehicle, in support of the United States Army Europe (USAREUR) Operational Needs Statement (ONS) #15-20590 Stryker Increased Lethality for the 2nd Cavalry Regiment (2CR). In FY 2023, as a follow-on to the earlier UMR round, the program will transition to the Program of Record (POR), the 30x173mm XM1172 Target Practice Discarding Sabot with Trace (TPDS-T) cartridge, which is ballistically matched to the tactical round, the XM1170 (APFSDS-T) cartridge, allowing the Warfighter to train in a realistic, cost effective manner. The XM1172 TPDS-T is scheduled to transition from Engineering Manufacturing Development (EMD) to Milestone C and Low Rate Initial Production (LRIP) in the 4th Quarter of FY 2023. 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 ammunition container. The Army completed the safety qualification of the MK258, which supported the Urgent Materiel Release (UMR) for the Stryker Infantry Carrier Vehicle, in support of the United States Army Europe (USAREUR) Operational Needs Statement (ONS) #15-20590 Stryker Increased Lethality for the 2nd Cavalry Regiment (2CR). In FY 2023, as a follow-on to the earlier UMR round, the program will transition to the Program of Record (POR), the 30x173mm XM1170 Armor Piercing Fin Stabilized Discarding Sabot with Trace (APFSDS-T) cartridge, which will provide an organic direct fire capability to support infantry at a greater range and will improve lethality when engaging light-to-medium armored vehicles, increasing anti-materiel capability and enhancing the operational effectiveness and lethality of the Stryker Infantry Carrier Vehicle (ICV), Next Generation Combat Vehicle (NGCV), and any Army Fighting Vehicles that are equipped with a 30x173mm weapon system. The XM1170 is scheduled to transition from Engineering Manufacturing Development (EMD) to Milestone C and Low Rate Initial Production (LRIP) in the 4th Quarter of FY 2023. This item is Code B, not approved for service use.

(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) ground vehicle platforms in response to Joint Urgent Operational Need (JUON) CC-0558, and a Directed Requirement for Initial Maneuver Short Range Air Defense (IM-SHORAD) platforms. 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.

(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, lightweight aluminum cartridge case, propellant, and PA520 electric primer. 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) ground vehicle platforms in response to Joint Urgent Operational Need (JUON) CC-0558, and a Directed Requirement for Initial Maneuver Short Range Air Defense (IM-SHORAD) platforms. The XM950 is a ballistic match to the XM1198 HEDP-SD and consists of an inert projectile, lightweight aluminum cartridge case, propellant, and PA520 electric primer. XM950 cartridges are packed in a linked assembly with 72 cartridges per M592 container. This item is Code B, not approved for service use.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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]	P-5a, P-21	B		- / 38.201	- / -	- / 0.826	- / 30.439	- / -	- / 30.439
P-5	E07406 / CTG, 30mm Hi Expl Incendry-T(HEI-T), Mk238 Series [AC27]	P-5a, P-21	B		- / 39.619	- / -	- / -	- / 8.603	- / -	- / 8.603
P-5	E07610 / CTG, 30MM, Progrmabl Air Burst Mun, Mk310, Linked [AC47]	P-5a, P-21	B		- / 15.177	- / -	- / -	- / 8.910	- / -	- / 8.910
P-5	E09191 / CTG, 30mm TPDS-T, MK317 (SABOT Trng), Single [AC28]	P-5a, P-21	B		- / 44.905	- / -	- / 6.000	- / 32.078	- / -	- / 32.078
P-5	E09292 / CTG, 30mm APFSDS-T, MK258, Single [AC26]	P-5a, P-21	B		- / 69.074	- / 2.564	- / 7.000	- / 37.133	- / -	- / 37.133
P-5	E09900 / CTG, 30mm HEDP, M789, Single, f/Gun M230 [B129]	P-5a	A		- / 1,002.544	- / 5.323	- / 10.799	- / 8.373	- / -	- / 8.373
P-5	E10100 / CTG, 30mm TP, M788, Single, f/Gun M230 [B118]	P-5a, P-21	A		- / 482.649	- / 23.045	- / 20.825	- / 17.509	- / -	- / 17.509
P-40	**Total Gross/Weapon System Cost**				**- / 1,692.169**	**- / 30.932**	**- / 45.450**	**- / 143.045**	**- / -**	**- / 143.045**

*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 2023 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 2023 Total Base procurement dollars in the amount of $143.045 million support procurement of 1.390 million 30mm cartridges.

(E07306) 30x173mm XM1173 Target Practice with Trace (TP-T) is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $25.323 million support the procurement of 0.233 million XM1173 cartridges. FY 2023 Base dollars in the amount of $5.116 million support the COCOM requirement for procurement of 0.047 million XM1173 cartridges to deter potential adversaries and support European Deterrence Initiative.
Type classification date: PENDING

(E07406) 30x173mm MK238 High Explosive Incendiary with Tracer (HEI-T) is a war reserve item used in combat. The FY 2023 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $2.462 million support the procurement of 0.013 million MK238 cartridges. FY 2023 Base dollars in the amount of $6.141 million support the COCOM requirement for procurement of 0.032 million MK238 cartridges to deter potential adversaries and support European Deterrence Initiative.
E07406 is a new start in FY 2023.
Type classification date: PENDING

(E07610) 30x173mm XM1182 High Explosive Airburst with Trace (HEAB-T) is a war reserve item used in combat. The FY 2023 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $8.910 million support the procurement of 0.006 million XM1182 cartridges.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

E07610 is a new start in FY 2023.
Type classification date: PENDING

(E09191) 30x173mm XM1172 Target Practice Discarding Sabot with Trace (TPDS-T) is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $32.078 million support the procurement of 0.405 million XM1172 cartridges.
E09191 is a new start in FY 2023.
Type classification date: PENDING

(E09292) 30x173mm XM1170 Armor Piercing Fin Stabilized Discarding Sabot with Trace (APFSDS-T) is a war reserve item used in combat. The FY 2023 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $13.124 million support the procurement of 0.022 million XM1170 cartridges. FY 2023 Base dollars in the amount of $24.009 million support the COCOM requirement for procurement of 0.040 million XM1170 cartridges to deter potential adversaries and support European Deterrence Initiative.
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 2023 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $3.681 million support the procurement of 0.026 million M789 cartridges. FY 2023 Base procurement dollars in the amount of $4.692 million support combat expenses for Operation Inherent Resolve. Funds will procure 0.028 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. The FY 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $17.509 million support the procurement of 0.538 million cartridges.
M788 Type classification date: 1982
XM950 Type classification date: PENDING

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	38.201	-	0.826	30.439	-	30.439
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	38.201	-	0.826	30.439	-	30.439
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**38.201**	**-**	**0.826**	**30.439**	**-**	**30.439**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	47.62	702,963	33.472	-	-	-	87.32	8,425	0.736	-	-	-	-	-	-	-	-	-
30x173MM, XM1173 TP-T(†)	-	-	-	-	-	-	-	-	-	101.02	279,981	28.284	-	-	-	101.02	279,981	28.284
Subtotal: Recurring Cost	-	-	*33.472*	-	-	-	-	-	*0.736*	-	-	*28.284*	-	-	-	-	-	*28.284*
Subtotal: Hardware Cost	**-**	**-**	***33.472***	**-**	**-**	**-**	**-**	**-**	***0.736***	**-**	**-**	***28.284***	**-**	**-**	**-**	**-**	**-**	***28.284***
Support - Acceptance Testing Cost																		
First Article Test	-	-	1.326	-	-	-	-	-	-	-	-	0.612	-	-	-	-	-	0.612
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***1.326***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.612***	**-**	**-**	**-**	**-**	**-**	***0.612***
Support - Production Engineering Cost																		
Production Engineering	-	-	3.377	-	-	-	-	-	0.086	-	-	1.540	-	-	-	-	-	1.540
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.377***	**-**	**-**	**-**	**-**	**-**	***0.086***	**-**	**-**	***1.540***	**-**	**-**	**-**	**-**	**-**	***1.540***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.026	-	-	-	-	-	0.004	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.026***	**-**	**-**	**-**	**-**	**-**	***0.004***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**38.201**	**-**	**-**	**-**	**-**	**-**	**0.826**	**-**	**-**	**30.439**	**-**	**-**	**-**	**-**	**-**	**30.439**

Exhibit P-5, Cost Analysis: PB 2023 Army		**Date:** April 2022
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:**

Remarks:
Complete round in the recurring hardware cost for FY 2022 and prior years references the Mk239 UMR round.

FY 2023 funding includes Base funding in support of the new Program of Record (POR), the 30x173mm XM1173 Target Practice with Trace (TP-T) cartridge in support of training for the Stryker Infantry Carrier Vehicle (ICV), Next Generation Combat Vehicle (NGCV), and any Army Fighting Vehicles that are equipped with a 30x173mm weapon system.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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]

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
Complete Round		2022	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	8,425	87.32	Y		
30x173MM, XM1173 TP-T(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	279,981	101.02	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
30x173MM, XM1173 TP-T																															
	1	2023	ARMY	279.981	.000	279.981																		A -	-	-	-	-	-	-	279.981
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
30x173MM, XM1173 TP-T																															
	1	2023	ARMY	279.981	.000	279.981	-	-	-	-	-	23.340	23.331	23.331	23.331	23.331	23.331	23.331	23.331	23.331	23.331	23.331	23.331								.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	80,000	160,000	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	39.619	-	-	8.603	-	8.603
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	39.619	-	-	8.603	-	8.603
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**39.619**	**-**	**-**	**8.603**	**-**	**8.603**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	131.93	261,715	34.528	-	-	-	-	-	-	183.62	44,870	8.239	-	-	-	183.62	44,870	8.239
Subtotal: Recurring Cost	-	-	*34.528*	-	-	-	-	-	-	-	-	*8.239*	-	-	-	-	-	*8.239*
Subtotal: Hardware Cost	**-**	**-**	***34.528***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***8.239***	**-**	**-**	**-**	**-**	**-**	***8.239***
Support - Acceptance Testing Cost																		
First Article Test	-	-	1.886	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***1.886***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	3.178	-	-	-	-	-	-	-	-	0.364	-	-	-	-	-	0.364
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.178***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.364***	**-**	**-**	**-**	**-**	**-**	***0.364***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.027***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**39.619**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**8.603**	**-**	**-**	**-**	**-**	**-**	**8.603**

Remarks:

Exhibit P-5, Cost Analysis: PB 2023 Army		**Date:** April 2022
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:**	

This item was last procured in FY 2019 at a hardware unit cost of $163.20, which has been increased to account for Economic Price Adjustments (EPA) and inflation. Ammunition costs are increasing greater than the historical inflation rates of 2-3%, due to significant increases to metals and manufacturing labor costs.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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]

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
COMPLETE ROUND(†)		2023	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Sep 2024	44,870	183.62	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 261715																															
	1	2023	ARMY	44.870	.000	44.870						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.741	41.129
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 261715																															
	1	2023	ARMY	44.870	3.741	41.129	3.739	3.739	3.739	3.739	3.739	3.739	3.739	3.739	3.739	3.739	3.739														.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	80,000	160,000	6	6	18	24	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	15.177	-	-	8.910	-	8.910
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	15.177	-	-	8.910	-	8.910
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**15.177**	**-**	**-**	**8.910**	**-**	**8.910**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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																		
30x173MM XM1182 HEAB-T(†)	-	-	-	-	-	-	-	-	-	1,131.59	6,416	7.260	-	-	-	1,131.59	6,416	7.260
Complete Round	1,059.94	13,230	14.023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*14.023*	-	-	-	-	-	-	-	-	*7.260*	-	-	-	-	-	*7.260*
Subtotal: Hardware Cost	**-**	**-**	***14.023***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***7.260***	**-**	**-**	**-**	**-**	**-**	***7.260***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	-	-	-	-	-	-	1.353	-	-	-	-	-	1.353
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.353***	**-**	**-**	**-**	**-**	**-**	***1.353***
Support - Production Engineering Cost																		
Production Engineering	-	-	1.137	-	-	-	-	-	-	-	-	0.293	-	-	-	-	-	0.293
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.137***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.293***	**-**	**-**	**-**	**-**	**-**	***0.293***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.017	-	-	-	-	-	-	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.017***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**15.177**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**8.910**	**-**	**-**	**-**	**-**	**-**	**8.910**

Remarks:

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Complete round in the recurring hardware cost for prior years references the Mk310 UMR round.

FY 2023 funding includes Base funding in support of the new Program of Record (POR), the 30x173mm XM1182 High Explosive Airburst with Trace (HEAB-T) cartridge in support of the Stryker Infantry Carrier Vehicle (ICV), Next Generation Combat Vehicle (NGCV), and any Army Fighting Vehicles that are equipped with a 30x173mm weapon system.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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]

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
30x173MM XM1182 HEAB-T(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Sep 2024	6,416	1,131.59	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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]

Cost Elements (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
30x173MM XM1182 HEAB-T																															
	1	2023	ARMY	6,416	0	6,416						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	542	5,874
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Each)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
30x173MM XM1182 HEAB-T																															
	1	2023	ARMY	6,416	542	5,874	534	534	534	534	534	534	534	534	534	534	534														0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	100	70,000	110,000	6	6	18	24	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	44.905	-	6.000	32.078	-	32.078
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	44.905	-	6.000	32.078	-	32.078
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**44.905**	**-**	**6.000**	**32.078**	**-**	**32.078**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	81.26	485,379	39.442	-	-	-	140.26	37,508	5.261	-	-	-	-	-	-	-	-	-
30x173MM XM1172 TPDS-T(†)	-	-	-	-	-	-	-	-	-	72.84	404,692	29.478	-	-	-	72.84	404,692	29.478
Subtotal: Recurring Cost	-	-	*39.442*	-	-	-	-	-	*5.261*	-	-	*29.478*	-	-	-	-	-	*29.478*
Subtotal: Hardware Cost	**-**	**-**	***39.442***	**-**	**-**	**-**	**-**	**-**	***5.261***	**-**	**-**	***29.478***	**-**	**-**	**-**	**-**	**-**	***29.478***
Support - Acceptance Testing Cost																		
First Article Test	-	-	1.846	-	-	-	-	-	-	-	-	0.740	-	-	-	-	-	0.740
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***1.846***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.740***	**-**	**-**	**-**	**-**	**-**	***0.740***
Support - Production Engineering Cost																		
Production Engineering	-	-	3.587	-	-	-	-	-	0.735	-	-	1.857	-	-	-	-	-	1.857
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.587***	**-**	**-**	**-**	**-**	**-**	***0.735***	**-**	**-**	***1.857***	**-**	**-**	**-**	**-**	**-**	***1.857***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.029	-	-	-	-	-	0.004	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.029***	**-**	**-**	**-**	**-**	**-**	***0.004***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**44.905**	**-**	**-**	**-**	**-**	**-**	**6.000**	**-**	**-**	**32.078**	**-**	**-**	**-**	**-**	**-**	**32.078**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

Remarks:
Complete round in the recurring hardware cost for FY 2022 and prior years references the Mk317 UMR round.

FY 2023 funding includes Base funding in support of the new Program of Record (POR), the 30x173mm XM1172 Target Practice Discarding Sabot with Trace (TPDS-T) cartridge in support of training for the Stryker Infantry Carrier Vehicle (ICV), Next Generation Combat Vehicle (NGCV), and any Army Fighting Vehicles that are equipped with a 30x173mm weapon system.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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]

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
Complete Round		2022	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Jul 2022	Jan 2024	37,508	140.26	Y		
30x173MM XM1172 TPDS-T(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Jul 2023	Jul 2024	404,692	72.84	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
30x173MM XM1172 TPDS-T																															
	1	2023	ARMY	404.692	.000	404.692																						A -	-	-	404.692
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
30x173MM XM1172 TPDS-T																															
	1	2023	ARMY	404.692	.000	404.692	-	-	-	-	-	-	-	-	-	33.728	33.724	33.724	33.724	33.724	33.724	33.724	33.724	33.724	33.724	33.724	33.724				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	80,000	160,000	10	10	12	22	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	69.074	2.564	7.000	37.133	-	37.133
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	69.074	2.564	7.000	37.133	-	37.133
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**69.074**	**2.564**	**7.000**	**37.133**	**-**	**37.133**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	503.71	123,333	62.124	762.61	3,362	2.564	779.49	8,340	6.501	-	-	-	-	-	-	-	-	-
30x173MM XM1170 APFSDS-T(†)	-	-	-	-	-	-	-	-	-	553.94	61,992	34.340	-	-	-	553.94	61,992	34.340
Subtotal: Recurring Cost	-	-	*62.124*	-	-	*2.564*	-	-	*6.501*	-	-	*34.340*	-	-	-	-	-	*34.340*
Subtotal: Hardware Cost	**-**	**-**	***62.124***	**-**	**-**	***2.564***	**-**	**-**	***6.501***	**-**	**-**	***34.340***	**-**	**-**	**-**	**-**	**-**	***34.340***
Support - Acceptance Testing Cost																		
First Article Test	-	-	2.707	-	-	-	-	-	-	-	-	1.494	-	-	-	-	-	1.494
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***2.707***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.494***	**-**	**-**	**-**	**-**	**-**	***1.494***
Support - Production Engineering Cost																		
Production Engineering	-	-	4.201	-	-	0.000	-	-	0.495	-	-	1.295	-	-	-	-	-	1.295
Subtotal: Support - Production Engineering Cost	**-**	**-**	***4.201***	**-**	**-**	**-**	**-**	**-**	***0.495***	**-**	**-**	***1.295***	**-**	**-**	**-**	**-**	**-**	***1.295***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.042	-	-	-	-	-	0.004	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.042***	**-**	**-**	**-**	**-**	**-**	***0.004***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**69.074**	**-**	**-**	**2.564**	**-**	**-**	**7.000**	**-**	**-**	**37.133**	**-**	**-**	**-**	**-**	**-**	**37.133**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

Remarks:
Complete round in the recurring hardware cost for FY 2021, FY 2022, and prior years references the Mk258 UMR round.

FY 2023 funding includes Base funding in support of the new Program of Record (POR), the 30x173mm XM1170 Armor Piercing Fin Stabilized Discarding Sabot with Trace (APFSDS-T) cartridge in support of the Stryker Infantry Carrier Vehicle (ICV), Next Generation Combat Vehicle (NGCV), and any Army Fighting Vehicles that are equipped with a 30x173mm weapon system.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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]

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
COMPLETE ROUND		2021	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Apr 2022	Aug 2023	3,362	762.61	Y		
COMPLETE ROUND		2022	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Jul 2022	Jan 2024	8,340	779.49	Y		
30x173MM XM1170 APFSDS-T(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Jul 2023	Jul 2024	61,992	553.94	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
30x173MM XM1170 APFSDS-T																															
	1	2023	ARMY	61.992	.000	61.992																						A -	-	-	61.992
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
30x173MM XM1170 APFSDS-T																															
	1	2023	ARMY	61.992	.000	61.992	-	-	-	-	-	-	-	-	-	5.166	5.166	5.166	5.166	5.166	5.166	5.166	5.166	5.166	5.166	5.166	5.166				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	100,000	200,000	10	10	12	22	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,002.544	5.323	10.799	8.373	-	8.373
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,002.544	5.323	10.799	8.373	-	8.373
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,002.544**	**5.323**	**10.799**	**8.373**	**-**	**8.373**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	74.74	13,270,269	991.807	130.48	33,438	4.363	128.34	10,010	1.285	131.98	26,298	3.471	-	-	-	131.98	26,298	3.471
COMPLETE ROUND XM1198 HEDP-SD(†)	-	-	-	-	-	-	186.37	46,898	8.740	160.53	28,072	4.506	-	-	-	160.53	28,072	4.506
Subtotal: Recurring Cost	-	-	*991.807*	-	-	*4.363*	-	-	*10.025*	-	-	*7.977*	-	-	-	-	-	*7.977*
Subtotal: Hardware Cost	**-**	**-**	***991.807***	**-**	**-**	***4.363***	**-**	**-**	***10.025***	**-**	**-**	***7.977***	**-**	**-**	**-**	**-**	**-**	***7.977***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.008	-	-	-	-	-	0.008
First Article Test	-	-	-	-	-	-	-	-	0.488	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.488***	**-**	**-**	***0.008***	**-**	**-**	**-**	**-**	**-**	***0.008***
Support - Data Cost																		
Technical Publications	-	-	-	-	-	0.040	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Data Cost	**-**	**-**	**-**	**-**	**-**	***0.040***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Product Improvement Cost																		
Reliability	-	-	1.238	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environmental Initiatives	-	-	-	-	-	0.532	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***1.238***	**-**	**-**	***0.532***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	9.364	-	-	0.388	-	-	0.279	-	-	0.379	-	-	-	-	-	0.379
Subtotal: Support - Production Engineering Cost	**-**	**-**	***9.364***	**-**	**-**	***0.388***	**-**	**-**	***0.279***	**-**	**-**	***0.379***	**-**	**-**	**-**	**-**	**-**	***0.379***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.136	-	-	-	-	-	0.007	-	-	0.009	-	-	-	-	-	0.009
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.136***	**-**	**-**	**-**	**-**	**-**	***0.007***	**-**	**-**	***0.009***	**-**	**-**	**-**	**-**	**-**	***0.009***
Gross/Weapon System Cost	**-**	**-**	**1,002.544**	**-**	**-**	**5.323**	**-**	**-**	**10.799**	**-**	**-**	**8.373**	**-**	**-**	**-**	**-**	**-**	**8.373**

Remarks:
Ammunition costs are increasing greater than the historical inflation rates of 2-3%, due to significant increases to metals and manufacturing labor costs.

FY 2023 includes funding for 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. The price difference for the 30MM HEDP-SD XM1198 from FY 2022 to FY 2023 is due to transition from Low Rate Initial Production (LRIP) in FY 2022 to Full Rate Production (FRP) in FY 2023.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND M789		2021	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	16,719	130.48	Y		
COMPLETE ROUND M789		2021	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	16,719	130.48	Y		
COMPLETE ROUND M789		2022	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	5,005	128.34	Y		
COMPLETE ROUND M789		2022	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	5,005	128.34	Y		
COMPLETE ROUND M789		2023	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	13,149	131.98	Y		
COMPLETE ROUND M789		2023	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	13,149	131.98	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		
COMPLETE ROUND XM1198 HEDP-SD		2023	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	14,036	160.53	Y		
COMPLETE ROUND XM1198 HEDP-SD		2023	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	14,036	160.53	Y		

Remarks:
This item 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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	482.649	23.045	20.825	17.509	-	17.509
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	482.649	23.045	20.825	17.509	-	17.509
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**482.649**	**23.045**	**20.825**	**17.509**	**-**	**17.509**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	18.70	24,697,037	461.942	24.71	818,427	20.223	27.96	447,720	12.518	28.50	538,054	15.335	-	-	-	28.50	538,054	15.335
COMPLETE ROUND XM950 PRACTICE(†)	-	-	-	-	-	-	32.44	176,942	5.740	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*461.933*	-	-	*20.223*	-	-	*18.258*	-	-	*15.335*	-	-	-	-	-	*15.335*
Subtotal: Hardware Cost	**-**	**-**	***461.933***	**-**	**-**	***20.223***	**-**	**-**	***18.258***	**-**	**-**	***15.335***	**-**	**-**	**-**	**-**	**-**	***15.335***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.008	-	-	-	-	-	0.008
First Article Test	-	-	-	-	-	-	-	-	0.350	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.350***	**-**	**-**	***0.008***	**-**	**-**	**-**	**-**	**-**	***0.008***
Support - Product Improvement Cost																		
Insensitive Munitions	-	-	-	-	-	2.305	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	**-**	**-**	**-**	***2.305***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	20.661	-	-	0.514	-	-	2.212	-	-	2.163	-	-	-	-	-	2.163
Subtotal: Support - Production Engineering Cost	**-**	**-**	***20.661***	**-**	**-**	***0.514***	**-**	**-**	***2.212***	**-**	**-**	***2.163***	**-**	**-**	**-**	**-**	**-**	***2.163***
Support - Quality Assurance Cost																		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	0.046	-	-	0.003	-	-	0.005	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.046***	**-**	**-**	***0.003***	**-**	**-**	***0.005***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**482.649**	**-**	**-**	**23.045**	**-**	**-**	**20.825**	**-**	**-**	**17.509**	**-**	**-**	**-**	**-**	**-**	**17.509**

Remarks:
The price difference for 30mm M788 from FY 2021 to FY 2022 is 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). Ammunition costs are increasing greater than the historical inflation rates of 2-3%, due to significant increases to metals and manufacturing labor costs.

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.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND M788 TP(†)		2021	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	409,214	24.71	Y		
COMPLETE ROUND M788 TP(†)		2021	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	409,213	24.71	Y		
COMPLETE ROUND M788 TP(†)		2022	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	223,860	27.96	Y		
COMPLETE ROUND M788 TP(†)		2022	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	223,860	27.96	Y		
COMPLETE ROUND M788 TP(†)		2023	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	269,027	28.50	Y		
COMPLETE ROUND M788 TP(†)		2023	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	269,027	28.50	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		
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		

(†) indicates the presence of a P-21

Remarks:
This item 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.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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 M788 TP																															
Prior Years Deliveries: 24697037																															
	1	2021	ARMY	409.214	.000	409.214						A -	-	-	-	-	-	-	-	-	-	-	-	100.000	100.000	100.000	100.000	9.214			.000
	2	2021	ARMY	409.213	.000	409.213						A -	-	-	-	-	-	-	-	-	-	-	-	100.000	100.000	100.000	100.000	9.213			.000
	1	2022	ARMY	223.860	.000	223.860																		A -	-	-	-	-	-	-	223.860
	2	2022	ARMY	223.860	.000	223.860																		A -	-	-	-	-	-	-	223.860
	1	2023	ARMY	269.027	.000	269.027																									269.027
	2	2023	ARMY	269.027	.000	269.027																									269.027
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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 M788 TP																															
Prior Years Deliveries: 24697037																															
	1	2021	ARMY	409.214	409.214	.000																									.000
	2	2021	ARMY	409.213	409.213	.000																									.000
	1	2022	ARMY	223.860	.000	223.860	-	-	-	-	-	18.655	18.655	18.655	18.655	18.655	18.655	18.655	18.655	18.655	18.655	18.655	18.655								.000
	2	2022	ARMY	223.860	.000	223.860	-	-	-	-	-	18.655	18.655	18.655	18.655	18.655	18.655	18.655	18.655	18.655	18.655	18.655	18.655								.000
	1	2023	ARMY	269.027	.000	269.027						A -	-	-	-	-	-	-	-	-	-	-	-	22.429	22.418	22.418	22.418	22.418	22.418	22.418	112.090
	2	2023	ARMY	269.027	.000	269.027						A -	-	-	-	-	-	-	-	-	-	-	-	22.429	22.418	22.418	22.418	22.418	22.418	22.418	112.090
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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 M788 TP																															
Prior Years Deliveries: 24697037																															
	1	2021	ARMY	409.214	409.214	.000																									.000
	2	2021	ARMY	409.213	409.213	.000																									.000
	1	2022	ARMY	223.860	223.860	.000																									.000
	2	2022	ARMY	223.860	223.860	.000																									.000
	1	2023	ARMY	269.027	156.937	112.090	22.418	22.418	22.418	22.418	22.418																				.000
	2	2023	ARMY	269.027	156.937	112.090	22.418	22.418	22.418	22.418	22.418																				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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 & TAC - MARION, IL	1,000	120,000	200,000	6	6	12	18	6	6	12	18
2	NORTHROP GRUMMAN INNOVATION - PLYMOUTH, MN	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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,832.367	109.934	38.344	85.213	-	85.213	57.850	66.569	57.237	57.236	-	2,304.750
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,832.367	109.934	38.344	85.213	-	85.213	57.850	66.569	57.237	57.236	-	2,304.750
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,832.367**	**109.934**	**38.344**	**85.213**	**-**	**85.213**	**57.850**	**66.569**	**57.237**	**57.236**	**-**	**2,304.750**
(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 - Air burst (HEDP-AB) XM1176 cartridge is a new capability that will provide the Mk19 Mod 3 Grenade Machine Gun (GMG) an air burst 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. The XM1176 HEDP-AB cartridges are manufactured by de-fuzing legacy M430A1 cartridges and installing a new airburst capable fuze onto the M430A1 warhead. 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 addresses a counter-defilade capability gap and 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

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

High Explosive Dual Purpose (HEDP) cartridge. 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 2023. This item is Code B, not approved for service use.

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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

Exhibits Schedule					Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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		- / 85.782	- / 2.825	- / -	- / 11.544	- / -	- / 11.544
P-5	E05611 / CTG, 40mm TP-Day/Nite/Ther,Hi Vel,M918E1 f/MK19Gmg [BA55]	P-5a, P-21	B		- / 225.318	- / 4.901	- / -	- / 37.162	- / -	- / 37.162
P-5	E12601 / CTG, 40MM HEDP, M433E1 F/M203 GRENADE LAUNCHER	P-5a, P-21	B		- / 542.414	- / 5.888	- / -	- / 6.766	- / -	- / 6.766
P-5	E70505 / CTG, 40MM, HV HEDP-AB, XM1176	P-5a, P-21	B		- / -	- / -	- / 13.844	- / 15.853	- / -	- / 15.853
P-5	E71005 / CTG, 40MM, LV HEAB, XM1166	P-5a, P-21	B		- / -	- / -	- / 10.500	- / 13.888	- / -	- / 13.888
P-5	E74315 / CTG, 40mm Practice, M918/M385A1 w/M16A2 Lnk f/MK19		A		- / 978.853	- / 96.320	- / 14.000	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**- / 1,832.367**	**- / 109.934**	**- / 38.344**	**- / 85.213**	**- / -**	**- / 85.213**

*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 2023 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 2023 Total Base procurement dollars in the amount of $85.213 million support procurement of 1.993 million cartridges.

(E05610) CTG 40mm M781E1 Low Velocity Day Night Thermal is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $11.544 million support the procurement of 0.535 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 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $37.162 million support the procurement of 1.307 million cartridges.
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 FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $6.766 million support the procurement of 0.031 million cartridges.
Type classification date: 1971

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

(E70505) CTG 40mm High Velocity (HV) High Explosive Dual Purpose - Air burst (HEDP-AB) XM1176 is a training standard item used in both training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $15.853 million support the procurement of 0.082 million cartridges.
Type classification date: TBD

(E71005) CTG 40mm Low Velocity High Explosive Air Burst (HEAB) XM1166 is a training standard item used in both training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $13.888 million support the procurement of 0.038 million cartridges.
Type classification date: TBD

(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

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	85.782	2.825	-	11.544	-	11.544
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	85.782	2.825	-	11.544	-	11.544
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**85.782**	**2.825**	**-**	**11.544**	**-**	**11.544**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	11.29	6,808,348	76.833	-	-	-	-	-	-	17.05	534,595	9.115	-	-	-	17.05	534,595	9.115
Subtotal: Recurring Cost	-	-	*76.832*	-	-	-	-	-	-	-	-	*9.115*	-	-	-	-	-	*9.115*
Subtotal: Hardware Cost	**-**	**-**	***76.832***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***9.115***	**-**	**-**	**-**	**-**	**-**	***9.115***
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.320	-	-	-	-	-	-	-	-	0.193	-	-	-	-	-	0.193
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.320***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.193***	**-**	**-**	**-**	**-**	**-**	***0.193***
Support - Product Improvement Cost																		
Reliability	-	-	-	-	-	0.501	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	**-**	**-**	**-**	***0.501***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	8.604	-	-	2.324	-	-	-	-	-	2.236	-	-	-	-	-	2.236
Subtotal: Support - Production Engineering Cost	**-**	**-**	***8.604***	**-**	**-**	***2.324***	**-**	**-**	**-**	**-**	**-**	***2.236***	**-**	**-**	**-**	**-**	**-**	***2.236***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	*0.024*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	85.782	-	-	2.825	-	-	-	-	-	11.544	-	-	-	-	-	11.544

Remarks:
There are technical issues with this cartridge that are being worked for production in FY 2023. Therefore, the FY 2023 estimate takes into account the expected cost to produce the revised version, as well as new contract risk. Ammunition costs are increasing greater than the historical inflation rates of 2-3%, due to significant increases to metals and manufacturing labor costs.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Mar 2023	Jul 2024	534,595	17.05	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 6808348																															
	1	2023	ARMY	534.595	.000	534.595						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44.556	44.549	44.549	400.941
	1	2023	NSOF (‡)	19.200	.000	19.200						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.600	1.600	1.600	14.400
	1	**2023**	**Total**	**553.795**	**.000**	**553.795**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**46.156**	**46.149**	**46.149**	**415.341**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 6808348																															
	1	2023	ARMY	534.595	133.654	400.941	44.549	44.549	44.549	44.549	44.549	44.549	44.549	44.549	44.549																.000
	1	2023	NSOF (‡)	19.200	4.800	14.400	1.600	1.600	1.600	1.600	1.600	1.600	1.600	1.600	1.600																.000
	1	**2023**	**Total**	**553.795**	**138.454**	**415.341**	**46.149**	**46.149**	**46.149**	**46.149**	**46.149**	**46.149**	**46.149**	**46.149**	**46.149**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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

(‡) 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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	225.318	4.901	-	37.162	-	37.162
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	225.318	4.901	-	37.162	-	37.162
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**225.318**	**4.901**	**-**	**37.162**	**-**	**37.162**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	-	-	-	-	25.74	1,307,147	33.646	-	-	-	25.74	1,307,147	33.646
Subtotal: Recurring Cost	-	-	*206.518*	-	-	-	-	-	-	-	-	*33.646*	-	-	-	-	-	*33.646*
Subtotal: Hardware Cost	**-**	**-**	***206.518***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***33.646***	**-**	**-**	**-**	**-**	**-**	***33.646***
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.409	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	0.500
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.409***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.500***	**-**	**-**	**-**	**-**	**-**	***0.500***
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	2.747	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	***2.747***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Product Improvement Cost																		
Safety	-	-	-	-	-	2.588	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	**-**	**-**	**-**	***2.588***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	15.609	-	-	2.313	-	-	-	-	-	3.016	-	-	-	-	-	3.016

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Production Engineering Cost	-	-	***15.609***	-	-	***2.313***	-	-	-	-	-	***3.016***	-	-	-	-	-	***3.016***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.034	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	-	-	***0.034***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	**225.318**	-	-	**4.901**	-	-	-	-	-	**37.162**	-	-	-	-	-	**37.162**

Remarks:
Ammunition costs are increasing greater than the historical inflation rates of 2-3%, due to significant increases to metals and manufacturing labor costs.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Jun 2023	Oct 2024	1,307,147	25.74	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 10193404																															
	1	2023	ARMY	1.307	.000	1.307									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.307
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 10193404																															
	1	2023	ARMY	1.307	.000	1.307	.109	.109	.109	.109	.109	.109	.109	.109	.109	.109	.109	.109													.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	100	250,000	600,000	9	9	16	25	6	6	16	22

"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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	542.414	5.888	-	6.766	-	6.766
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	542.414	5.888	-	6.766	-	6.766
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**542.414**	**5.888**	**-**	**6.766**	**-**	**6.766**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	199.60	15,834	3.160	-	-	-	186.93	31,080	5.810	-	-	-	186.93	31,080	5.810
Subtotal: Recurring Cost	-	-	*542.359*	-	-	*3.160*	-	-	-	-	-	*5.810*	-	-	-	-	-	*5.810*
Subtotal: Hardware Cost	**-**	**-**	***542.359***	**-**	**-**	***3.160***	**-**	**-**	**-**	**-**	**-**	***5.810***	**-**	**-**	**-**	**-**	**-**	***5.810***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	1.809	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	***1.809***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.055	-	-	0.911	-	-	-	-	-	0.953	-	-	-	-	-	0.953
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.055***	**-**	**-**	***0.911***	**-**	**-**	**-**	**-**	**-**	***0.953***	**-**	**-**	**-**	**-**	**-**	***0.953***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	0.008	-	-	-	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	***0.008***	**-**	**-**	**-**	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**542.414**	**-**	**-**	**5.888**	**-**	**-**	**-**	**-**	**-**	**6.766**	**-**	**-**	**-**	**-**	**-**	**6.766**

Remarks:

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

Unit price increase from prior years to FY 2021 is due to transition to improved version for lethality (fragmentation) and accuracy. Ammunition costs are increasing greater than the historical inflation rates of 2-3%, due to significant increases to metals and manufacturing labor costs.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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

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
COMPLETE ROUND(†)		2021	AMTEC CORPORATION / JANESVILLE, WI	Option / FFP	ROCK ISLAND ARSENAL, IL	Apr 2022	Oct 2023	15,834	199.60	Y		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Oct 2024	31,080	186.93	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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: 7894593																															
	2	2021	ARMY	15.834	.000	15.834							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.834
	1	2023	ARMY	31.080	.000	31.080																		A -	-	-	-	-	-	-	31.080
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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

Cost Elements (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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: 7894593																															
	2	2021	ARMY	15.834	.000	15.834	1.325	1.319	1.319	1.319	1.319	1.319	1.319	1.319	1.319	1.319	1.319	1.319													.000
	1	2023	ARMY	31.080	.000	31.080	-	-	-	-	-	-	-	-	-	-	-	-	2.590	2.590	2.590	2.590	2.590	2.590	2.590	2.590	2.590	2.590	2.590	2.590	.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	60,000	6	6	19	25	6	6	17	23
2	AMTEC CORPORATION - JANESVILLE, WI	20,000	35,000	60,000	6	6	19	25	6	6	17	23

"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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	13.844	15.853	-	15.853
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	13.844	15.853	-	15.853
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**13.844**	**15.853**	**-**	**15.853**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	162.76	81,803	13.314	-	-	-	162.76	81,803	13.314
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*11.772*	-	-	*13.314*	-	-	-	-	-	*13.314*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***11.772***	**-**	**-**	***13.314***	**-**	**-**	**-**	**-**	**-**	***13.314***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	-	-	-	0.290	-	-	0.296	-	-	-	-	-	0.296
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.290***	**-**	**-**	***0.296***	**-**	**-**	**-**	**-**	**-**	***0.296***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	1.782	-	-	2.235	-	-	-	-	-	2.235
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.782***	**-**	**-**	***2.235***	**-**	**-**	**-**	**-**	**-**	***2.235***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	0.008	-	-	-	-	-	0.008
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.008***	**-**	**-**	**-**	**-**	**-**	***0.008***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**13.844**	**-**	**-**	**15.853**	**-**	**-**	**-**	**-**	**-**	**15.853**

Remarks:
The price variance between FY 2022 and FY 2023 is due to the contract price matrix transition from Low Rate Initial Production (LRIP) in FY 2022 to Full Rate Production (FRP) in FY 2023.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND(†)		2022	RDZM, LLC / MIDDLETOWN, IA	Option / FFP	PICATINNY ARSENAL, NJ	Jul 2022	Nov 2023	26,850	438.44	Y		
COMPLETE ROUND(†)		2023	RDZM, LLC / MIDDLETOWN, IA	Option / FFP	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2024	81,803	162.76	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).

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	26.850	.000	26.850										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.850
	1	2023	ARMY	81.803	.000	81.803																		A -	-	-	-	-	-	-	81.803
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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																															
	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	2.237												.000
	1	2023	ARMY	81.803	.000	81.803	-	-	-	-	-	6.827	6.816	6.816	6.816	6.816	6.816	6.816	6.816	6.816	6.816	6.816	6.816								.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	10.500	13.888	-	13.888
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	10.500	13.888	-	13.888
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**10.500**	**13.888**	**-**	**13.888**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	295.49	37,989	11.225	-	-	-	295.49	37,989	11.225
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*8.566*	-	-	*11.225*	-	-	-	-	-	*11.225*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***8.566***	**-**	**-**	***11.225***	**-**	**-**	**-**	**-**	**-**	***11.225***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	-	-	-	0.451	-	-	0.460	-	-	-	-	-	0.460
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.451***	**-**	**-**	***0.460***	**-**	**-**	**-**	**-**	**-**	***0.460***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	1.483	-	-	2.203	-	-	-	-	-	2.203
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.483***	**-**	**-**	***2.203***	**-**	**-**	**-**	**-**	**-**	***2.203***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**10.500**	**-**	**-**	**13.888**	**-**	**-**	**-**	**-**	**-**	**13.888**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND(†)		2022	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Jul 2022	Nov 2023	29,570	289.70	Y		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Aug 2023	Dec 2024	37,989	295.49	Y		

(†) indicates the presence of a P-21

Remarks:
Milestone C for this program is scheduled for the 4th Quarter of FY 2023, to be followed by contract award for Low Rate Initial Production (LRIP) in August 2023.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	29.570	.000	29.570										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.570
	1	2023	ARMY	37.989	.000	37.989																							A -	-	37.989
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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																															
	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
	1	2023	ARMY	37.989	.000	37.989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.174	3.165	3.165	3.165	3.165	3.165	3.165	3.165	3.165	3.165	6.330
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Thousands)							Fiscal Year 2026												Fiscal Year 2027												BALANCE
										Calendar Year 2026												Calendar Year 2027									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2025	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	29.570	29.570	.000																									.000
	1	2023	ARMY	37.989	31.659	6.330	3.165	3.165																							.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	11	11	18	29	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	978.853	96.320	14.000	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	978.853	96.320	14.000	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**978.853**	**96.320**	**14.000**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	374.57	2,598,587	973.353	28.62	3,168,892	90.694	33.00	306,469	10.113	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*973.353*	-	-	*90.694*	-	-	*10.113*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***973.353***	**-**	**-**	***90.694***	**-**	**-**	***10.113***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.387	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.387***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Product Improvement Cost																		
Safety	-	-	0.143	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***0.143***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	4.970	-	-	5.611	-	-	3.858	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***4.970***	**-**	**-**	***5.611***	**-**	**-**	***3.858***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	0.015	-	-	0.029	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	***0.015***	**-**	**-**	***0.029***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**978.853**	**-**	**-**	**96.320**	**-**	**-**	**14.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	559.395	31.222	19.365	33.338	-	33.338	26.231	29.720	31.023	31.023	-	761.317
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	559.395	31.222	19.365	33.338	-	33.338	26.231	29.720	31.023	31.023	-	761.317
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**559.395**	**31.222**	**19.365**	**33.338**	**-**	**33.338**	**26.231**	**29.720**	**31.023**	**31.023**	**-**	**761.317**
(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:

(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.

(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
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.

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

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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	E85700 / CTG, 60mm Mortar IR ILLUM, M767 Series w/MTSQ Fuze [BA04]	P-5a	A		- / 61.356	- / -	- / -	- / 4.745	- / -	- / 4.745
P-5	E92200 / CTG, 60mm Mortar FRTR, M769 Series w/Practice Fuze [BA15]	P-5a	A		- / 200.507	- / 10.601	- / 9.375	- / 13.401	- / -	- / 13.401
P-5	E92900 / CTG, 60mm Mortar HE, M768 Series w/PD Fuze [BA45]	P-5a	A		- / 297.532	- / 20.621	- / 9.990	- / 15.192	- / -	- / 15.192
P-40	**Total Gross/Weapon System Cost**				**- / 559.395**	**- / 31.222**	**- / 19.365**	**- / 33.338**	**- / -**	**- / 33.338**

*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 2023 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 2023 total base procurement dollars in the amount of $33.338 million supports the procurement of 105,189 cartridges.

E85700 - CTG, 60mm Mortar IR ILLUM, M767 Series w/MTSQ Fuze
This is a training standard item used in training and combat. The FY2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. E85700 is a New Start in FY 2023. Total base procurement dollars in the amount of $4.745 million supports the procurement of 5,926 rounds
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 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Total base procurement dollars in the amount of $13.401 million supports the procurement of 68,149 rounds.
TYPE CLASSIFICATION DATE: 2001

E92900 - CTG, 60mm Mortar HE, M768 Series w/PD Fuze
This is a training standard item used in training and combat. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Total base procurement dollars in the amount of $15.192 million supports the procurement of 31,114 cartridges.
TYPE CLASSIFICATION DATE: 2001

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	61.356	-	-	4.745	-	4.745
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	61.356	-	-	4.745	-	4.745
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**61.356**	**-**	**-**	**4.745**	**-**	**4.745**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	141.97	24,017	3.410	-	-	-	-	-	-	195.56	5,926	1.159	-	-	-	195.56	5,926	1.159
FIN ASSEMBLY M27(†)	7.49	24,737	0.185	-	-	-	-	-	-	7.62	6,103	0.047	-	-	-	7.62	6,103	0.047
M702 IGNITION CARTRIDGE(†)	14.59	24,737	0.361	-	-	-	-	-	-	15.60	6,103	0.095	-	-	-	15.60	6,103	0.095
PROPELLANT CHARGE, M235(†)	12.97	98,950	1.284	-	-	-	-	-	-	15.75	24,415	0.385	-	-	-	15.75	24,415	0.385
FUZE MTSQ, M776(†)	214.90	24,737	5.316	-	-	-	-	-	-	237.44	6,103	1.449	-	-	-	237.44	6,103	1.449
BODY TUBE, 60MM ILLUM(†)	22.21	24,737	0.549	-	-	-	-	-	-	29.32	6,103	0.179	-	-	-	29.32	6,103	0.179
TAIL CONE, 60MM ILLUM(†)	18.57	24,737	0.459	-	-	-	-	-	-	24.32	6,103	0.148	-	-	-	24.32	6,103	0.148
PARACHUTE, 60MM(†)	22.00	24,737	0.544	-	-	-	-	-	-	26.00	6,103	0.159	-	-	-	26.00	6,103	0.159
IR ILLUM CANNISTER, 60MM(†)	88.08	24,737	2.179	-	-	-	-	-	-	89.33	6,103	0.545	-	-	-	89.33	6,103	0.545
FIBER CONTAINER PA 175, 60MM(†)	3.54	24,737	0.087	-	-	-	-	-	-	3.90	6,103	0.024	-	-	-	3.90	6,103	0.024

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	46.85	3,046	0.143	-	-	-	-	-	-	50.02	740	0.037	-	-	-	50.02	740	0.037
Subtotal: Recurring Cost	-	-	*14.517*	-	-	-	-	-	-	-	-	*4.226*	-	-	-	-	-	*4.226*
Subtotal: Hardware Cost	**-**	**-**	***14.517***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***4.226***	**-**	**-**	**-**	**-**	**-**	***4.226***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.321	-	-	-	-	-	-	-	-	0.091	-	-	-	-	-	0.091
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.321***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.091***	**-**	**-**	**-**	**-**	**-**	***0.091***
Support - Production Engineering Cost																		
Production Engineering	-	-	46.517	-	-	-	-	-	-	-	-	0.428	-	-	-	-	-	0.428
Subtotal: Support - Production Engineering Cost	**-**	**-**	***46.517***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.428***	**-**	**-**	**-**	**-**	**-**	***0.428***
Gross/Weapon System Cost	**-**	**-**	**61.356**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.745**	**-**	**-**	**-**	**-**	**-**	**4.745**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2023	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	May 2023	May 2025	5,926	195.56	Y		
FIN ASSEMBLY M27		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	6,103	7.62	Y		
M702 IGNITION CARTRIDGE		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	6,103	15.60	Y		
PROPELLANT CHARGE, M235		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	24,415	15.75	Y		
FUZE MTSQ, M776		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	6,103	237.44	Y		
BODY TUBE, 60MM ILLUM		2023	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	6,103	29.32	Y		
TAIL CONE, 60MM ILLUM		2023	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	6,103	24.32	Y		
PARACHUTE, 60MM		2023	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	6,103	26.00	Y		
IR ILLUM CANNISTER, 60MM		2023	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Jan 2023	Jul 2024	6,103	89.33	Y		
FIBER CONTAINER PA 175, 60MM		2023	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Jun 2023	Dec 2024	6,103	3.90	Y		
METAL CONTAINER PA191, 60MM		2023	BWAY CORPORATION / ATLANTA, GA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	740	50.02	Y		

Remarks:
M27 FINS: IDIQ awarded (FY 2017) to multiple contractors. Requirements a recompeted 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: Medico Industries Inc., 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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	200.507	10.601	9.375	13.401	-	13.401
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	200.507	10.601	9.375	13.401	-	13.401
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**200.507**	**10.601**	**9.375**	**13.401**	**-**	**13.401**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	18.50	284,983	5.272	18.70	55,965	1.047	20.32	49,998	1.016	20.70	68,149	1.411	-	-	-	20.70	68,149	1.411
Fuze Practice, M775(†)	20.19	293,533	5.926	21.09	57,644	1.216	22.50	51,498	1.159	21.94	70,193	1.540	-	-	-	21.94	70,193	1.540
Shell Body, 60MM FRPC(†)	36.65	293,533	10.758	37.79	57,644	2.178	39.47	51,498	2.033	39.32	70,193	2.760	-	-	-	39.32	70,193	2.760
M702 Ignition Cartridge(†)	14.34	293,533	4.209	15.00	57,644	0.865	17.04	51,498	0.878	15.60	70,193	1.095	-	-	-	15.60	70,193	1.095
Propellant Charge, M235(†)	12.32	1,174,130	14.469	12.80	230,576	2.951	13.04	205,992	2.686	15.75	280,773	4.422	-	-	-	15.75	280,773	4.422
Fin Assembly M27(†)	7.25	293,533	2.127	7.33	57,644	0.423	7.85	51,498	0.404	7.62	70,193	0.535	-	-	-	7.62	70,193	0.535
Subtotal: Recurring Cost	-	-	*42.760*	-	-	*8.679*	-	-	*8.175*	-	-	*11.763*	-	-	-	-	-	*11.763*
Subtotal: Hardware Cost	**-**	**-**	***42.760***	**-**	**-**	***8.679***	**-**	**-**	***8.175***	**-**	**-**	***11.763***	**-**	**-**	**-**	**-**	**-**	***11.763***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	1.560	-	-	0.461	-	-	0.383	-	-	0.475	-	-	-	-	-	0.475
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***1.560***	**-**	**-**	***0.461***	**-**	**-**	***0.383***	**-**	**-**	***0.475***	**-**	**-**	**-**	**-**	**-**	***0.475***
Support - Production Engineering Cost																		
Production Engineering	-	-	156.187	-	-	1.461	-	-	0.818	-	-	1.164	-	-	-	-	-	1.164
Subtotal: Support - Production Engineering Cost	**-**	**-**	***156.187***	**-**	**-**	***1.461***	**-**	**-**	***0.818***	**-**	**-**	***1.164***	**-**	**-**	**-**	**-**	**-**	***1.164***

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	200.507	-	-	10.601	-	-	9.375	-	-	13.401	-	-	-	-	-	13.401

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2021	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2023	55,965	18.70	Y		
Load, Assemble, Pack (LAP)		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2022	May 2024	49,998	20.32	Y		
Load, Assemble, Pack (LAP)		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2023	May 2025	68,149	20.70	Y		
Fuze Practice, M775		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2020	Dec 2022	57,644	21.09	Y		
Fuze Practice, M775		2022	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	51,498	22.50	Y		
Fuze Practice, M775		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	70,193	21.94	Y		
Shell Body, 60MM FRPC		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2020	Jun 2022	57,644	37.79	Y		
Shell Body, 60MM FRPC		2022	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	51,498	39.47	Y		
Shell Body, 60MM FRPC		2023	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	70,193	39.32	Y		
M702 Ignition Cartridge		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	57,644	15.00	Y		
M702 Ignition Cartridge		2022	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2022	Aug 2023	51,498	17.04	Y		
M702 Ignition Cartridge		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	70,193	15.60	Y		
Propellant Charge, M235		2021	GENERAL DYNAMICS ORD & TAC / MARION, IL	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	230,576	12.80	Y		
Propellant Charge, M235		2022	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	205,992	13.04	Y		
Propellant Charge, M235		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	280,773	15.75	Y		
Fin Assembly M27		2021	FLEXIBLE CONCEPTS, INC. / ELKHART, IN	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2021	Nov 2022	57,644	7.33	Y		
Fin Assembly M27		2022	GAYSTON CORPORATION / MIAMISBURG, OH	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2022	Oct 2023	51,498	7.85	Y		
Fin Assembly M27		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	70,193	7.62	Y		

Remarks:

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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]

LAP: IDIQ awarded (2018) to multiple contractors. Requirements are competed among the following contractors: Nammo Pocal INC., Scranton, PA Day and Zimmerman, Parsons, KS., 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: Single award IDIQ (FY 2018) to Medico Industries Inc., 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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	297.532	20.621	9.990	15.192	-	15.192
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	297.532	20.621	9.990	15.192	-	15.192
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**297.532**	**20.621**	**9.990**	**15.192**	**-**	**15.192**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	54.32	163,506	8.881	66.89	43,059	2.880	58.99	19,999	1.180	70.07	31,114	2.180	-	-	-	70.07	31,114	2.180
SHELL BODY (HF1), 60MM HE(†)	40.07	168,413	6.748	41.39	44,351	1.836	43.29	20,599	0.892	43.06	32,047	1.380	-	-	-	43.06	32,047	1.380
FIN ASSEMBLY M27(†)	7.25	168,413	1.222	7.70	44,351	0.342	7.85	20,599	0.162	7.62	32,047	0.244	-	-	-	7.62	32,047	0.244
M702 IGNITION CARTRIDGE(†)	18.73	168,413	3.154	15.00	44,351	0.665	17.04	20,599	0.351	15.60	32,047	0.500	-	-	-	15.60	32,047	0.500
PROPELLANT CHARGE, M235(†)	11.56	673,645	7.788	12.80	177,403	2.271	13.04	82,396	1.074	15.75	128,189	2.019	-	-	-	15.75	128,189	2.019
FUZE POINT DETONATOR M783(†)	178.53	168,413	30.067	170.51	44,351	7.562	173.92	20,599	3.583	177.39	32,047	5.685	-	-	-	177.39	32,047	5.685
PBXW-12 BULK EXPLOSIVE(†)	87.10	3,705	0.323	109.89	2,584	0.284	90.99	1,200	0.109	114.33	1,866	0.213	-	-	-	114.33	1,866	0.213
EXPLOSIVE FILL IMX-104(†)	22.19	490,518	10.885	23.22	79,659	1.850	24.89	59,997	1.493	24.15	57,560	1.390	-	-	-	24.15	57,560	1.390
Subtotal: Recurring Cost	-	-	*69.067*	-	-	*17.689*	-	-	*8.844*	-	-	*13.611*	-	-	-	-	-	*13.611*
Subtotal: Hardware Cost	**-**	**-**	***69.067***	**-**	**-**	***17.689***	**-**	**-**	***8.844***	**-**	**-**	***13.611***	**-**	**-**	**-**	**-**	**-**	***13.611***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	1.126	-	-	0.425	-	-	0.220	-	-	0.261	-	-	-	-	-	0.261

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)
First Article Test	-	-	-	-	-	0.176	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***1.126***	**-**	**-**	***0.601***	**-**	**-**	***0.220***	**-**	**-**	***0.261***	**-**	**-**	**-**	**-**	**-**	***0.261***
Support - Production Engineering Cost																		
Production Engineering	-	-	227.339	-	-	2.331	-	-	0.926	-	-	1.319	-	-	-	-	-	1.319
Subtotal: Support - Production Engineering Cost	**-**	**-**	***227.339***	**-**	**-**	***2.331***	**-**	**-**	***0.926***	**-**	**-**	***1.319***	**-**	**-**	**-**	**-**	**-**	***1.319***
Gross/Weapon System Cost	**-**	**-**	**297.532**	**-**	**-**	**20.621**	**-**	**-**	**9.990**	**-**	**-**	**15.192**	**-**	**-**	**-**	**-**	**-**	**15.192**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2021	GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2021	Jun 2024	43,059	66.89	Y		
LOAD, ASSEMBLE, PACK (LAP)		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2022	May 2025	19,999	58.99	Y		
LOAD, ASSEMBLE, PACK (LAP)		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2023	May 2026	31,114	70.07	Y		
SHELL BODY (HF1), 60MM HE		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2020	Jun 2022	44,351	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	20,599	43.29	Y		
SHELL BODY (HF1), 60MM HE		2023	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	32,047	43.06	Y		
FIN ASSEMBLY M27		2021	GAYSTON CORPORATION / MIAMISBURG, OH	Option / IDIQ	ROCK ISLAND ARSENAL, IL	May 2021	Nov 2022	44,351	7.70	Y		
FIN ASSEMBLY M27		2022	FLEXIBLE CONCEPTS, INC. / ELKHART, IN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2022	Oct 2023	20,599	7.85	Y		
FIN ASSEMBLY M27		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	32,047	7.62	Y		
M702 IGNITION CARTRIDGE		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	44,351	15.00	Y		
M702 IGNITION CARTRIDGE		2022	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2022	Aug 2023	20,599	17.04	Y		
M702 IGNITION CARTRIDGE		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	32,047	15.60	Y		
PROPELLANT CHARGE, M235		2021	GENERAL DYNAMICS ORD & TAC / MARION, IL	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	177,403	12.80	Y		
PROPELLANT CHARGE, M235		2022	GENERAL DYNAMICS ORD & TAC / MARION, IL	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	82,396	13.04	Y		
PROPELLANT CHARGE, M235		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	128,189	15.75	Y		
FUZE POINT DETONATOR M783		2021	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2023	44,351	170.51	Y		
FUZE POINT DETONATOR M783		2022	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2024	20,599	173.92	Y		
FUZE POINT DETONATOR M783		2023	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2025	32,047	177.39	Y		
PBXW-12 BULK EXPLOSIVE		2021	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Sep 2021	Mar 2023	2,584	109.89	Y		

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
PBXW-12 BULK EXPLOSIVE		2022	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2022	Feb 2024	1,200	90.99	Y		
PBXW-12 BULK EXPLOSIVE		2023	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Feb 2025	1,866	114.33	Y		
EXPLOSIVE FILL IMX-104		2021	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2023	79,659	23.22	Y		
EXPLOSIVE FILL IMX-104		2022	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2022	Aug 2024	59,997	24.89	Y		
EXPLOSIVE FILL IMX-104		2023	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2025	57,560	24.15	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 a re competed among the following contractors: Gayston, Springboro, OH; Fl exible Concepts Elkhart, IN. Ignition Cartridges: IDIQ awarded (FY 2018) to multiple contractors. Req uirements 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. Requ irements arecompeted among the following contractors: American Ordnance , Middletown, IA; and General Dynamics, Marion, IL.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	862.669	42.857	42.735	56.577	-	56.577	40.939	65.094	69.051	69.051	-	1,248.973
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	862.669	42.857	42.735	56.577	-	56.577	40.939	65.094	69.051	69.051	-	1,248.973
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**862.669**	**42.857**	**42.735**	**56.577**	**-**	**56.577**	**40.939**	**65.094**	**69.051**	**69.051**	**-**	**1,248.973**
(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 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

(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.

(E90000) - CTG, MORTAR, 81MM IR ILLUM M816 SERIES W/MTSQ FUZE SYSTEM DESCRIPTION: The M816 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 infra-red illumination. 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). 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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		- / 339.437	- / 17.742	- / 23.849	- / 31.650	- / -	- / 31.650
P-5	E18404 / CTG, 81mm Mortar HE, M889 Series w/PD Fuze [CA63]	P-5a	A		- / 164.613	- / 11.309	- / -	- / 12.064	- / -	- / 12.064
P-5	E69600 / CTG, 81mm FRTR, M879 Series w/Practice Fuze [C875]	P-5a	A		- / 204.757	- / 13.806	- / 8.598	- / 9.207	- / -	- / 9.207
P-5	E76100 / CTG, 81mm Mortar VL ILLUM, M853 Series w/MTSQ Fuze [C871]	P-5a	A		- / 96.052	- / -	- / 10.288	- / -	- / -	- / -
P-5	E90000 / CTG, 81mm Mortar IR ILLUM, M816 Series w/MTSQ Fuze	P-5a	A		- / 57.810	- / -	- / -	- / 3.656	- / -	- / 3.656
P-40	**Total Gross/Weapon System Cost**				**- / 862.669**	**- / 42.857**	**- / 42.735**	**- / 56.577**	**- / -**	**- / 56.577**

*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 2023 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 2023 Total Base procurement dollars in the amount of $56.577 million supports procurement of 91,639 cartridges.

(E18403) CTG, MORTAR, 81MM HE M821 SERIES W/MOFM
This is a training standard item used in training and combat. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Total Base procurement dollars in the amount of $31,650 million supports procurement of 29,937 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. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Total Base procurement dollars in the amount of $12.064 million supports procurement of 21,538 cartridges.
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 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Total Base procurement dollars in the amount of $9.207 million supports procurement of 37,088 rounds.
TYPE CLASSIFICATION DATE: August 1986

(E90000) CTG, MORTAR, 81MM IR ILLUM M816

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		**Date:** April 2022
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		

This is a training standard item used in training and combat. FY 2023 request supports annual training and builds a war reserve level in accordance with the Army's procurement goals. FY 2023 is a New Start. Total Base procurement dollars in the amount of $3.656 million supports procurement of 3,076 rounds.
TYPE CLASSIFICATION DATE: December 1986

(E76100) CTG, MORTAR, 81MM VL ILLUM M853A1 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 level in accordance with the Army's procurement goals.
TYPE CLASSIFICATION DATE: December 1986

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	339.437	17.742	23.849	31.650	-	31.650
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	339.437	17.742	23.849	31.650	-	31.650
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**339.437**	**17.742**	**23.849**	**31.650**	**-**	**31.650**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	335.23	64,144	21.503	398.86	16,135	6.436	346.40	23,651	8.193	416.51	29,937	12.469	-	-	-	416.51	29,937	12.469
SHELL BODY, 81MM HE M821A4(†)	82.91	66,068	5.478	86.45	16,619	1.437	86.59	24,361	2.109	89.94	30,834	2.773	-	-	-	89.94	30,834	2.773
FIN MORTAR CTG M24 F/81MM(†)	16.77	66,068	1.108	17.44	16,619	0.290	17.74	24,361	0.432	18.14	30,834	0.559	-	-	-	18.14	30,834	0.559
IGN CTG M299(†)	15.19	66,068	1.004	15.82	16,619	0.263	16.14	24,361	0.393	16.61	30,834	0.512	-	-	-	16.61	30,834	0.512
PROPELLANT CHARGE, M658(†)	13.12	264,274	3.468	14.18	66,476	0.943	14.06	97,442	1.370	14.74	123,340	1.818	-	-	-	14.74	123,340	1.818
FUZE MOFM, M734A1(†)	256.34	66,068	16.936	249.17	16,619	4.141	254.15	24,361	6.191	259.23	30,834	7.993	-	-	-	259.23	30,834	7.993
PBXW-12 BULK EXPLOSIVE(†)	87.83	6,043	0.531	109.89	1,936	0.213	90.99	2,838	0.258	114.33	3,592	0.411	-	-	-	114.33	3,592	0.411
EXPLOSIVE FILL IMX-104(†)	22.14	269,405	5.965	23.22	45,985	1.068	24.89	99,334	2.472	24.15	85,320	2.060	-	-	-	24.15	85,320	2.060
Subtotal: Recurring Cost	-	-	*55.992*	-	-	*14.789*	-	-	*21.420*	-	-	*28.596*	-	-	-	-	-	*28.596*
Subtotal: Hardware Cost	**-**	**-**	***55.992***	**-**	**-**	***14.789***	**-**	**-**	***21.420***	**-**	**-**	***28.596***	**-**	**-**	**-**	**-**	**-**	***28.596***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.588	-	-	0.128	-	-	0.282	-	-	0.284	-	-	-	-	-	0.284

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Acceptance Testing Cost	-	-	***0.588***	-	-	***0.128***	-	-	***0.282***	-	-	***0.284***	-	-	-	-	-	***0.284***
Support - Product Improvement Cost																		
Reliability	-	-	0.361	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Safety	-	-	-	-	-	0.975	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	-	-	***0.361***	-	-	***0.975***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
Production Engineering	-	-	282.496	-	-	1.850	-	-	2.148	-	-	2.770	-	-	-	-	-	2.770
Subtotal: Support - Production Engineering Cost	-	-	***282.496***	-	-	***1.850***	-	-	***2.148***	-	-	***2.770***	-	-	-	-	-	***2.770***
Gross/Weapon System Cost	-	-	**339.437**	-	-	**17.742**	-	-	**23.849**	-	-	**31.650**	-	-	-	-	-	**31.650**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)(†)		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	May 2021	May 2024	16,135	398.86	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2022	May 2025	23,651	346.40	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2023	May 2026	29,937	416.51	Y		
SHELL BODY, 81MM HE M821A4		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Apr 2021	Oct 2022	16,619	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	24,361	86.59	Y		
SHELL BODY, 81MM HE M821A4		2023	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	30,834	89.94	Y		
FIN MORTAR CTG M24 F/81MM		2021	FLEXIBLE CONCEPTS, INC. / ELKHART, IN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	May 2021	Nov 2022	16,619	17.44	Y		
FIN MORTAR CTG M24 F/81MM		2022	FLEXIBLE CONCEPTS, INC. / ELKHART, IN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2022	Oct 2023	24,361	17.74	Y		
FIN MORTAR CTG M24 F/81MM		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	30,834	18.14	Y		
IGN CTG M299		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2020	Jun 2022	16,619	15.82	Y		
IGN CTG M299		2022	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2022	Aug 2023	24,361	16.14	Y		
IGN CTG M299		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	30,834	16.61	Y		
PROPELLANT CHARGE, M658		2021	GENERAL DYNAMICS ORD & TAC / MARION, IL	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	66,476	14.18	Y		
PROPELLANT CHARGE, M658		2022	GENERAL DYNAMICS ORD & TAC / MARION, IL	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	97,442	14.06	Y		
PROPELLANT CHARGE, M658		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	123,340	14.74	Y		
FUZE MOFM, M734A1		2021	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2023	16,619	249.17	Y		
FUZE MOFM, M734A1		2022	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2024	24,361	254.15	Y		
FUZE MOFM, M734A1		2023	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2025	30,834	259.23	Y		
PBXW-12 BULK EXPLOSIVE		2021	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Sep 2021	Mar 2023	1,936	109.89	Y		

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
PBXW-12 BULK EXPLOSIVE		2022	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2022	Feb 2024	2,838	90.99	Y		
PBXW-12 BULK EXPLOSIVE		2023	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Feb 2025	3,592	114.33	Y		
EXPLOSIVE FILL IMX-104		2021	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2023	45,985	23.22	Y		
EXPLOSIVE FILL IMX-104		2022	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2022	Aug 2024	99,334	24.89	Y		
EXPLOSIVE FILL IMX-104		2023	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2025	85,320	24.15	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.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 64144																															
	1	2021	ARMY	16.135	.000	16.135								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.135
	2	2022	ARMY	23.651	.000	23.651																				A -	-	-	-	-	23.651
	2	2022	MC (‡)	.961	.000	.961																				A -	-	-	-	-	.961
	2	**2022**	**Total**	**24.612**	**.000**	**24.612**																				**-**	**-**	**-**	**-**	**-**	**24.612**
	2	2023	ARMY	29.937	.000	29.937																									29.937
	2	2023	MC (‡)	.951	.000	.951																									.951
	2	**2023**	**Total**	**30.888**	**.000**	**30.888**																									**30.888**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 64144																															
	1	2021	ARMY	16.135	.000	16.135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.000	4.135				.000
	2	2022	ARMY	23.651	.000	23.651	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.651
	2	2022	MC (‡)	.961	.000	.961	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.961
	2	**2022**	**Total**	**24.612**	**.000**	**24.612**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**24.612**
	2	2023	ARMY	29.937	.000	29.937								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.937
	2	2023	MC (‡)	.951	.000	.951								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.951
	2	**2023**	**Total**	**30.888**	**.000**	**30.888**								**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**30.888**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 64144																															
	1	2021	ARMY	16.135	16.135	.000																									.000
	2	2022	ARMY	23.651	.000	23.651	-	-	-	-	-	-	-	6.000	12.000	5.651															.000
	2	2022	MC (‡)	.961	.000	.961	-	-	-	-	-	-	-	.961	-	-															.000
	2	**2022**	**Total**	**24.612**	**.000**	**24.612**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.961**	**12.000**	**5.651**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	2	2023	ARMY	29.937	.000	29.937	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.049	12.000	6.888			.000
	2	2023	MC (‡)	.951	.000	.951	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.951	-	-			.000
	2	**2023**	**Total**	**30.888**	**.000**	**30.888**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**12.000**	**12.000**	**6.888**	**-**	**-**	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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 & TAC - WILKES BARRE, PA	4,000	12,000	30,000	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	164.613	11.309	-	12.064	-	12.064
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	164.613	11.309	-	12.064	-	12.064
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**164.613**	**11.309**	**-**	**12.064**	**-**	**12.064**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	88.25	20,010	1.766	-	-	-	95.21	21,538	2.051	-	-	-	95.21	21,538	2.051
FUZE POINT DETONATOR M783(†)	187.94	90,003	16.915	170.51	20,610	3.514	-	-	-	177.39	22,184	3.935	-	-	-	177.39	22,184	3.935
SHELL BODY, 81MM HE(†)	50.74	90,003	4.567	52.19	20,610	1.076	-	-	-	54.29	22,184	1.204	-	-	-	54.29	22,184	1.204
IGN CTG M299(†)	14.80	90,003	1.332	15.82	20,610	0.326	-	-	-	16.61	22,184	0.368	-	-	-	16.61	22,184	0.368
CHG PROP 81MM M220(†)	11.92	360,013	4.291	11.97	82,441	0.987	-	-	-	15.04	88,736	1.335	-	-	-	15.04	88,736	1.335
FIN MORTAR CTG M24 F/81MM(†)	16.18	90,003	1.457	17.44	20,610	0.359	-	-	-	18.14	22,184	0.402	-	-	-	18.14	22,184	0.402
PBXW-12 BULK EXPLOSIVE(†)	85.74	3,660	0.314	109.89	2,401	0.264	-	-	-	114.33	2,584	0.295	-	-	-	114.33	2,584	0.295
EXPLOSIVE FILL IMX-104(†)	21.87	367,004	8.026	23.22	57,029	1.324	-	-	-	24.15	61,383	1.482	-	-	-	24.15	61,383	1.482
Subtotal: Recurring Cost	-	-	*44.179*	-	-	*9.616*	-	-	-	-	-	*11.074*	-	-	-	-	-	*11.074*
Subtotal: Hardware Cost	**-**	**-**	***44.179***	**-**	**-**	***9.616***	**-**	**-**	**-**	**-**	**-**	***11.074***	**-**	**-**	**-**	**-**	**-**	***11.074***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	0.345	-	-	-	-	-	0.143	-	-	-	-	-	0.143

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Acceptance Testing Cost	-	-	-	-	-	***0.345***	-	-	-	-	-	***0.143***	-	-	-	-	-	***0.143***
Support - Production Engineering Cost																		
Production Engineering	-	-	120.434	-	-	1.348	-	-	-	-	-	0.847	-	-	-	-	-	0.847
Subtotal: Support - Production Engineering Cost	-	-	***120.434***	-	-	***1.348***	-	-	-	-	-	***0.847***	-	-	-	-	-	***0.847***
Gross/Weapon System Cost	-	-	**164.613**	-	-	**11.309**	-	-	-	-	-	**12.064**	-	-	-	-	-	**12.064**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2021	DAY & ZIMMERMAN (KSAAP) / PARSONS, KS	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2021	Jun 2024	20,010	88.25	Y		
LOAD, ASSEMBLE, PACK (LAP)		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2023	May 2026	21,538	95.21	Y		
FUZE POINT DETONATOR M783		2021	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2023	20,610	170.51	Y		
FUZE POINT DETONATOR M783		2023	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	22,184	177.39	Y		
SHELL BODY, 81MM HE		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2020	Jun 2022	20,610	52.19	Y		
SHELL BODY, 81MM HE		2023	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	22,184	54.29	Y		
IGN CTG M299		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2020	Jun 2022	20,610	15.82	Y		
IGN CTG M299		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	22,184	16.61	Y		
CHG PROP 81MM M220		2021	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	82,441	11.97	Y		
CHG PROP 81MM M220		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	88,736	15.04	Y		
FIN MORTAR CTG M24 F/81MM		2021	FLEXIBLE CONCEPTS, INC. / ELKHART, IN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	May 2021	Nov 2022	20,610	17.44	Y		
FIN MORTAR CTG M24 F/81MM		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	22,184	18.14	Y		
PBXW-12 BULK EXPLOSIVE		2021	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Sep 2021	Mar 2024	2,401	109.89	Y		
PBXW-12 BULK EXPLOSIVE		2023	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Feb 2025	2,584	114.33	Y		
EXPLOSIVE FILL IMX-104		2021	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Sep 2021	Mar 2024	57,029	23.22	Y		
EXPLOSIVE FILL IMX-104		2023	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2025	61,383	24.15	Y		

Remarks:
Ignition Cartridges: IDIQ awarded (FY 2018) to Nammo Pocal Industries, Scranton, PA. HE LAP: IDIQ awarded (FY 2017) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Parsons, KS; General Dynamics, Le Gardeur, Canada; American Ordnance, Middletown, IA. HE Shell Bodes: IDIQ awarded (FY 2018) to General 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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	204.757	13.806	8.598	9.207	-	9.207
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	204.757	13.806	8.598	9.207	-	9.207
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**204.757**	**13.806**	**8.598**	**9.207**	**-**	**9.207**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	41.59	252,789	10.512	42.16	62,324	2.628	46.53	35,866	1.669	47.41	37,088	1.758	-	-	-	47.41	37,088	1.758
FUZE PRACTICE, M751(†)	20.10	260,373	5.234	21.09	64,194	1.354	21.56	36,942	0.796	21.94	38,199	0.838	-	-	-	21.94	38,199	0.838
SHELL BODY, 81MM FRPC(†)	44.01	260,373	11.458	45.19	64,194	2.901	47.61	36,942	1.759	47.01	38,199	1.796	-	-	-	47.01	38,199	1.796
IGN CTG M299(†)	14.97	260,373	3.898	15.82	64,194	1.016	16.13	36,942	0.596	16.61	38,199	0.634	-	-	-	16.61	38,199	0.634
CHG PROP 81MM M220(†)	12.75	1,041,491	13.282	11.97	256,775	3.074	15.10	147,768	2.231	15.04	152,799	2.298	-	-	-	15.04	152,799	2.298
FIN MORTAR CTG M24 F/81MM(†)	15.65	260,373	4.075	14.85	64,194	0.953	17.74	36,942	0.655	18.14	38,199	0.693	-	-	-	18.14	38,199	0.693
Subtotal: Recurring Cost	-	-	*48.459*	-	-	*11.925*	-	-	*7.707*	-	-	*8.018*	-	-	-	-	-	*8.018*
Subtotal: Hardware Cost	**-**	**-**	***48.459***	**-**	**-**	***11.925***	**-**	**-**	***7.707***	**-**	**-**	***8.018***	**-**	**-**	**-**	**-**	**-**	***8.018***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	1.836	-	-	0.546	-	-	0.281	-	-	0.302	-	-	-	-	-	0.302
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***1.836***	**-**	**-**	***0.546***	**-**	**-**	***0.281***	**-**	**-**	***0.302***	**-**	**-**	**-**	**-**	**-**	***0.302***
Support - Production Engineering Cost																		
Production Engineering	-	-	154.462	-	-	1.335	-	-	0.610	-	-	0.888	-	-	-	-	-	0.888

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Production Engineering Cost	-	-	***154.462***	-	-	***1.335***	-	-	***0.610***	-	-	***0.888***	-	-	-	-	-	***0.888***
Gross/Weapon System Cost	-	-	**204.757**	-	-	**13.806**	-	-	**8.598**	-	-	**9.207**	-	-	-	-	-	**9.207**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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]

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)		2021	DAY & ZIMMERMAN (KSAAP) / PARSONS, KS	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2023	62,324	42.16	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		
LOAD, ASSEMBLE, PACK (LAP)		2023	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	May 2023	Nov 2026	37,088	47.41	Y		
FUZE PRACTICE, M751		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2020	Jun 2022	64,194	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		
FUZE PRACTICE, M751		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	38,199	21.94	Y		
SHELL BODY, 81MM FRPC		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2020	Jun 2022	64,194	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		
SHELL BODY, 81MM FRPC		2023	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	38,199	47.01	Y		
IGN CTG M299		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2020	Jun 2022	64,194	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		
IGN CTG M299		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	38,199	16.61	Y		
CHG PROP 81MM M220		2021	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	256,775	11.97	Y		
CHG PROP 81MM M220		2022	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	147,768	15.10	Y		
CHG PROP 81MM M220		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	152,799	15.04	Y		
FIN MORTAR CTG M24 F/81MM		2021	GAYSTON CORPORATION / MIAMISBURG, OH	C / IDIQ	PICATINNY ARSENAL, NJ	May 2021	Nov 2022	64,194	14.85	Y		
FIN MORTAR CTG M24 F/81MM		2022	GAYSTON CORPORATION / MIAMISBURG, OH	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2022	Oct 2023	36,942	17.74	Y		
FIN MORTAR CTG M24 F/81MM		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	38,199	18.14	Y		

Remarks:

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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, Scranton, 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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	96.052	-	10.288	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	96.052	-	10.288	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**96.052**	**-**	**10.288**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	285.18	84,356	24.057	-	-	-	280.48	8,940	2.507	-	-	-	-	-	-	-	-	-
FUZE MTSQ, M772(†)	285.18	86,887	24.778	-	-	-	260.17	9,207	2.395	-	-	-	-	-	-	-	-	-
BODY TUBE, 81MM ILLUM(†)	42.55	86,887	3.697	-	-	-	44.76	9,207	0.412	-	-	-	-	-	-	-	-	-
TAIL CONE, 81MM ILLUM(†)	20.79	86,887	1.806	-	-	-	21.88	9,207	0.201	-	-	-	-	-	-	-	-	-
IGN CTG M752(†)	25.36	86,887	2.203	-	-	-	26.68	9,207	0.246	-	-	-	-	-	-	-	-	-
CHG PROP 81MM M219(†)	13.26	347,547	4.608	-	-	-	13.95	36,833	0.514	-	-	-	-	-	-	-	-	-
FIN MORTAR CTG M28 F/81MM M819 RP(†)	17.49	86,887	1.520	-	-	-	18.40	9,207	0.169	-	-	-	-	-	-	-	-	-
ILLUM CANDLE VL F/81MM M853A1(†)	237.65	86,887	20.649	-	-	-	214.44	9,207	1.974	-	-	-	-	-	-	-	-	-
PARACHUTE, 81MM(†)	29.94	86,877	2.601	-	-	-	31.49	9,207	0.290	-	-	-	-	-	-	-	-	-
FIBER CONTAINER PA 162, 81MM(†)	6.17	86,887	0.536	-	-	-	6.49	9,207	0.060	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	64.72	29,525	1.911	-	-	-	68.08	3,039	0.207	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*88.367*	-	-	-	-	-	*8.976*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***88.367***	**-**	**-**	**-**	**-**	**-**	***8.976***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.962	-	-	-	-	-	0.162	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.962***	**-**	**-**	**-**	**-**	**-**	***0.162***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	6.724	-	-	-	-	-	1.150	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***6.724***	**-**	**-**	**-**	**-**	**-**	***1.150***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**96.052**	**-**	**-**	**-**	**-**	**-**	**10.288**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2022	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	May 2022	Jul 2024	8,940	280.48	Y		
FUZE MTSQ, M772		2022	JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY	SS / FFP	ROCK ISLAND ARSENAL, IL	May 2022	Sep 2023	9,207	260.17	Y		
BODY TUBE, 81MM ILLUM		2022	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	May 2022	Aug 2023	9,207	44.76	Y		
TAIL CONE, 81MM ILLUM		2022	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	May 2022	Aug 2023	9,207	21.88	Y		
IGN CTG M752		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2022	Aug 2023	9,207	26.68	Y		
CHG PROP 81MM M219		2022	TO BE SELECTED / TBS01	Option / IDIQ	ROCK ISLAND ARSENAL, IL	May 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	May 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	May 2022	Oct 2023	9,207	214.44	Y		
PARACHUTE, 81MM		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2022	Sep 2023	9,207	31.49	Y		
FIBER CONTAINER PA 162, 81MM		2022	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	May 2022	Sep 2023	9,207	6.49	Y		
METAL CONTAINER PA 157, 81MM		2022	BWAY CORP / ATLANTA, GA	Option / IDIQ	PICATINNY ARSENAL, NJ	May 2022	Sep 2023	3,039	68.08	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33	**P-1 Line Item Number / Title:** 3584E76000 / 81MM Mortar, All Types	**Item Number / Title [DODIC]:** E90000 / CTG, 81mm Mortar IR ILLUM, M816 Series w/MTSQ Fuze

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	57.810	-	-	3.656	-	3.656
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	57.810	-	-	3.656	-	3.656
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**57.810**	**-**	**-**	**3.656**	**-**	**3.656**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	268.86	55,841	15.013	-	-	-	-	-	-	290.09	3,076	0.892	-	-	-	290.09	3,076	0.892
BODY TUBE, 81MM ILLUM(†)	42.32	57,516	2.434	-	-	-	-	-	-	45.66	3,168	0.145	-	-	-	45.66	3,168	0.145
TAIL CONE, 81MM ILLUM(†)	20.67	57,516	1.189	-	-	-	-	-	-	22.31	3,168	0.071	-	-	-	22.31	3,168	0.071
FIN MORTAR CTG M28 F/81MM M819 RP(†)	17.36	57,516	0.998	-	-	-	-	-	-	18.74	3,168	0.059	-	-	-	18.74	3,168	0.059
CHG PROP 81MM M219(†)	13.94	230,065	3.207	-	-	-	-	-	-	15.04	12,673	0.191	-	-	-	15.04	12,673	0.191
IGN CTG M752(†)	21.43	57,516	1.233	-	-	-	-	-	-	23.12	3,168	0.073	-	-	-	23.12	3,168	0.073
FUZE MTSQ, M772(†)	220.06	57,516	12.657	-	-	-	-	-	-	237.44	3,168	0.752	-	-	-	237.44	3,168	0.752
IR ILLUM CANNISTER, 81MM(†)	199.99	57,516	11.503	-	-	-	-	-	-	215.79	3,168	0.684	-	-	-	215.79	3,168	0.684
PARACHUTE, 81MM(†)	60.74	57,516	3.494	-	-	-	-	-	-	65.54	3,168	0.208	-	-	-	65.54	3,168	0.208
METAL CONTAINER PA 157, 81MM(†)	56.42	19,544	1.103	-	-	-	-	-	-	60.88	1,076	0.066	-	-	-	60.88	1,076	0.066

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33	**P-1 Line Item Number / Title:** 3584E76000 / 81MM Mortar, All Types	**Item Number / Title [DODIC]:** E90000 / CTG, 81mm Mortar IR ILLUM, M816 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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)
FIBER CONTAINER PA 162, 81MM(†)	6.17	57,516	0.355	-	-	-	-	-	-	6.61	3,168	0.021	-	-	-	6.61	3,168	0.021
Subtotal: Recurring Cost	-	-	*53.185*	-	-	-	-	-	-	-	-	*3.161*	-	-	-	-	-	*3.161*
Subtotal: Hardware Cost	**-**	**-**	***53.185***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.161***	**-**	**-**	**-**	**-**	**-**	***3.161***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.578	-	-	-	-	-	-	-	-	0.165	-	-	-	-	-	0.165
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.578***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.165***	**-**	**-**	**-**	**-**	**-**	***0.165***
Support - Production Engineering Cost																		
Production Engineering	-	-	4.047	-	-	-	-	-	-	-	-	0.330	-	-	-	-	-	0.330
Subtotal: Support - Production Engineering Cost	**-**	**-**	***4.047***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.330***	**-**	**-**	**-**	**-**	**-**	***0.330***
Gross/Weapon System Cost	**-**	**-**	**57.810**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3.656**	**-**	**-**	**-**	**-**	**-**	**3.656**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33	P-1 Line Item Number / Title: 3584E76000 / 81MM Mortar, All Types	Item Number / Title [DODIC]: E90000 / CTG, 81mm Mortar IR ILLUM, M816 Series w/MTSQ Fuze

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)		2023	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Feb 2023	Feb 2025	3,076	290.09	Y		
BODY TUBE, 81MM ILLUM		2023	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	3,168	45.66	Y		
TAIL CONE, 81MM ILLUM		2023	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	3,168	22.31	Y		
FIN MORTAR CTG M28 F/81MM M819 RP		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	3,168	18.74	Y		
CHG PROP 81MM M219		2023	TO BE SELECTED / TBS01	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	12,673	15.04	Y		
IGN CTG M752		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	3,168	23.12	Y		
FUZE MTSQ, M772		2023	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Oct 2024	3,168	237.44	Y		
IR ILLUM CANNISTER, 81MM		2023	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2023	Oct 2024	3,168	215.79	Y		
PARACHUTE, 81MM		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	3,168	65.54	Y		
METAL CONTAINER PA 157, 81MM		2023	BWAY CORPORATION / ATLANTA, GA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	1,076	60.88	Y		
FIBER CONTAINER PA 162, 81MM		2023	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	3,168	6.61	Y		

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,253.074	125.962	90.801	127.168	-	127.168	115.336	135.272	121.999	123.632	-	3,093.244
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,253.074	125.962	90.801	127.168	-	127.168	115.336	135.272	121.999	123.632	-	3,093.244
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,253.074**	**125.962**	**90.801**	**127.168**	**-**	**127.168**	**115.336**	**135.272**	**121.999**	**123.632**	**-**	**3,093.244**
(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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
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.

(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.

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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

Exhibits Schedule					Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	E25502 / CTG, 120mm Mortar HE, M933 Series w/PD Fuze [CA44]	P-5a, P-21	A		- / 491.296	- / 13.726	- / 18.876	- / 29.945	- / -	- / 29.945
P-5	E25503 / CTG, 120mm Mortar VL ILLM, M930 Series w/MTSQ Fuze [C625]	P-5a	A		- / 444.434	- / -	- / 10.305	- / -	- / -	- / -
P-5	E25507 / CTG, 120mm Mortar FRTR, M931 Series w/Pract Fuze [CA09]	P-5a, P-21	A		- / 670.198	- / 49.399	- / 28.440	- / 34.857	- / -	- / 34.857
P-5	E91300 / CTG, 120mm Mortar WP Smoke, M929 Series w/MOFM [CA03]	P-5a, P-21	A		- / 274.909	- / 29.519	- / 18.792	- / 19.871	- / -	- / 19.871
P-5	E91400 / CTG, 120mm Mortar HE, M934 Series w/MOFM [CA04]	P-5a	A		- / 166.706	- / 19.573	- / 14.388	- / 15.245	- / -	- / 15.245
P-5	E91500 / CTG, 120mm Mortar IR ILLUM, M983 Series w/MTSQ [CA07]	P-5a, P-21	A		- / 205.531	- / 13.745	- / -	- / 27.250	- / -	- / 27.250
P-40	**Total Gross/Weapon System Cost**				**- / 2,253.074**	**- / 125.962**	**- / 90.801**	**- / 127.168**	**- / -**	**- / 127.168**

*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 2023 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 2023 Total Base dollars in the amount of $127.168 million supports the procurement of 153,205 cartridges.

(E25502) CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE
This is a training standard item used in training and combat. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $29.945 million supports production of 34,863 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 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals.
FY2023 Base procurement dollars in the amount of $34.857 million supports the procurement of 73,371 rounds.
TYPE CLASSIFICATION DATE: 1996

(E91300) CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

This is a training standard item used in training and combat. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $19.871 million supports the procurement of 13,214 cartridges.
TYPE CLASSIFICATION DATE: 1996

(E91400) CTG, MORTAR, 120MM HE M934 SERIES W/MOFM FUZE
This is a training standard item used in training and combat. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $15.245 million supports production of 15,962 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. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $27.250 million supports production of 15,795 cartridges.
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. The request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.
TYPE CLASSIFICATION DATE: 2003

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	491.296	13.726	18.876	29.945	-	29.945
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	491.296	13.726	18.876	29.945	-	29.945
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**491.296**	**13.726**	**18.876**	**29.945**	**-**	**29.945**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	424.98	56,165	23.869	142.76	27,732	3.959	161.05	21,697	3.494	151.75	34,863	5.290	-	-	-	151.75	34,863	5.290
FIN ASSEMBLY, M31(†)	133.13	57,850	7.702	40.05	28,564	1.144	41.67	22,348	0.931	42.49	35,908	1.526	-	-	-	42.49	35,908	1.526
IGNITION CARTRIDGE, M1020(†)	23.04	179,549	4.137	23.81	28,564	0.680	25.12	22,348	0.561	25.01	35,908	0.898	-	-	-	25.01	35,908	0.898
PROPELLANT CHARGE, M234A1(†)	59.87	231,400	13.853	21.49	114,256	2.455	22.11	89,392	1.976	25.49	143,635	3.661	-	-	-	25.49	143,635	3.661
SHELL BODY, 120MM HE(†)	328.20	57,850	18.986	135.18	28,564	3.861	132.92	22,348	2.970	140.64	35,908	5.050	-	-	-	140.64	35,908	5.050
FUZE POINT DETONATOR M783(†)	556.23	57,850	32.178	-	-	-	173.92	22,348	3.887	177.39	35,908	6.370	-	-	-	177.39	35,908	6.370
*FUZE POINT DETONATOR M783(†)	-	-	-	170.51	28,564	4.870	-	-	-	-	-	-	-	-	-	-	-	-
COMP B TYPE I GRADE A(†)	11.87	739,503	8.778	-	-	-	14.07	195,273	2.747	14.35	313,767	4.503	-	-	-	14.35	313,767	4.503
*COMP B TYPE I GRADE A(†)	12.39	829,368	10.277	13.80	249,588	3.444	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)
PBXW-12 BULK EXPLOSIVE(†)	-	-	-	109.89	3,051	0.335	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*119.780*	-	-	*20.750*	-	-	*16.568*	-	-	*27.298*	-	-	-	-	-	*27.298*
Subtotal: Hardware Cost	**-**	**-**	***119.780***	**-**	**-**	***20.750***	**-**	**-**	***16.568***	**-**	**-**	***27.298***	**-**	**-**	**-**	**-**	**-**	***27.298***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	1.012	-	-	0.120	-	-	0.240	-	-	0.243	-	-	-	-	-	0.243
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***1.012***	**-**	**-**	***0.120***	**-**	**-**	***0.240***	**-**	**-**	***0.243***	**-**	**-**	**-**	**-**	**-**	***0.243***
Support - Government Furnished Materials Cost																		
Government Furnished Materials	-	-	-10.277	-	-	-8.314	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Government Furnished Materials Cost	**-**	**-**	***-10.277***	**-**	**-**	***-8.314***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Product Improvement Cost																		
Reliability	-	-	1.840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***1.840***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	378.941	-	-	1.169	-	-	2.068	-	-	2.404	-	-	-	-	-	2.404
Subtotal: Support - Production Engineering Cost	**-**	**-**	***378.941***	**-**	**-**	***1.169***	**-**	**-**	***2.068***	**-**	**-**	***2.404***	**-**	**-**	**-**	**-**	**-**	***2.404***
Gross/Weapon System Cost	**-**	**-**	**491.296**	**-**	**-**	**13.726**	**-**	**-**	**18.876**	**-**	**-**	**29.945**	**-**	**-**	**-**	**-**	**-**	**29.945**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)(†)		2021	GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA	Option / FFP	PICATINNY ARSENAL, NJ	Dec 2020	Dec 2023	27,732	142.76	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2022	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	May 2022	May 2025	21,697	161.05	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	May 2023	May 2026	34,863	151.75	Y		
FIN ASSEMBLY, M31		2021	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	28,564	40.05	Y		
FIN ASSEMBLY, M31		2022	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	22,348	41.67	Y		
FIN ASSEMBLY, M31		2023	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	35,908	42.49	Y		
IGNITION CARTRIDGE, M1020		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2020	Jun 2022	28,564	23.81	Y		
IGNITION CARTRIDGE, M1020		2022	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2022	Aug 2023	22,348	25.12	Y		
IGNITION CARTRIDGE, M1020		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	35,908	25.01	Y		
PROPELLANT CHARGE, M234A1		2021	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	114,256	21.49	Y		
PROPELLANT CHARGE, M234A1		2022	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	89,392	22.11	Y		
PROPELLANT CHARGE, M234A1		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	143,635	25.49	Y		
SHELL BODY, 120MM HE		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Jul 2021	Jan 2022	28,564	135.18	Y		
SHELL BODY, 120MM HE		2022	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2022	Aug 2023	22,348	132.92	Y		
SHELL BODY, 120MM HE		2023	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	35,908	140.64	Y		
FUZE POINT DETONATOR M783		2022	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2024	22,348	173.92	Y		
FUZE POINT DETONATOR M783		2023	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2025	35,908	177.39	Y		
*FUZE POINT DETONATOR M783		2021	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	PICATINNY ARSENAL, NJ	Sep 2021	Sep 2021	28,564	170.51	N		
COMP B TYPE I GRADE A		2022	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2022	Feb 2023	195,273	14.07	Y		

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMP B TYPE I GRADE A		2023	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Feb 2024	313,767	14.35	Y		
*COMP B TYPE I GRADE A		2021	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	PICATINNY ARSENAL, NJ	Sep 2021	Sep 2021	249,588	13.80	N		
PBXW-12 BULK EXPLOSIVE		2021	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Sep 2021	Mar 2023	3,051	109.89	Y		

(†) 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.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 56165																															
	1	2021	ARMY	27.732	.000	27.732			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27.732
	2	2022	ARMY	21.697	.000	21.697																				A -	-	-	-	-	21.697
	2	2023	ARMY	34.863	.000	34.863																									34.863
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 56165																															
	1	2021	ARMY	27.732	.000	27.732	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.000	9.000	6.732								.000
	2	2022	ARMY	21.697	.000	21.697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.697
	2	2023	ARMY	34.863	.000	34.863								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34.863
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 56165																															
	1	2021	ARMY	27.732	27.732	.000																									.000
	2	2022	ARMY	21.697	.000	21.697	-	-	-	-	-	-	-	12.000	9.697																.000
	2	2023	ARMY	34.863	.000	34.863	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.000	12.000	10.863			.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	6,000	12,000	30,000	8	8	36	44	8	8	36	44
2	TO BE SELECTED - TBS01	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [C625]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	444.434	-	10.305	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	444.434	-	10.305	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**444.434**	**-**	**10.305**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	401.88	152,177	61.157	-	-	-	409.92	6,419	2.631	-	-	-	-	-	-	-	-	-
IGNITION CARTRIDGE, M1020(†)	24.63	53,262	1.312	-	-	-	25.12	6,612	0.166	-	-	-	-	-	-	-	-	-
PROPELLANT CHARGE, M234A1(†)	21.68	156,742	3.398	-	-	-	22.11	26,446	0.585	-	-	-	-	-	-	-	-	-
VL ILLUM CANNISTER, 120MM(†)	297.40	156,742	46.615	-	-	-	303.36	6,612	2.006	-	-	-	-	-	-	-	-	-
FIN ASSEMBLY, M31(†)	40.84	156,742	6.402	-	-	-	41.67	6,612	0.276	-	-	-	-	-	-	-	-	-
METAL CONTAINER PA 154, 120MM(†)	72.79	156,742	11.410	-	-	-	74.25	3,338	0.248	-	-	-	-	-	-	-	-	-
PARACHUTE, 120MM(†)	53.53	156,742	8.390	-	-	-	54.61	6,612	0.361	-	-	-	-	-	-	-	-	-
FIBER CONTAINER PA 167, 120MM(†)	13.62	156,742	2.135	-	-	-	13.89	6,612	0.092	-	-	-	-	-	-	-	-	-
120MM ILLUM BODY(†)	158.20	156,742	24.796	-	-	-	161.37	6,612	1.067	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [C625]
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	255.07	626,967	159.920	-	-	-	260.18	6,612	1.720	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*325.534*	-	-	-	-	-	*9.151*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***325.534***	**-**	**-**	**-**	**-**	**-**	***9.151***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	96.200	-	-	-	-	-	0.090	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***96.200***	**-**	**-**	**-**	**-**	**-**	***0.090***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	22.700	-	-	-	-	-	1.064	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***22.700***	**-**	**-**	**-**	**-**	**-**	***1.064***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**444.434**	**-**	**-**	**-**	**-**	**-**	**10.305**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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 [C625]

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)		2022	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	May 2022	Mar 2024	6,419	409.92	Y		
IGNITION CARTRIDGE, M1020		2022	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	May 2022	Aug 2023	6,612	25.12	Y		
PROPELLANT CHARGE, M234A1		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2022	Aug 2023	26,446	22.11	Y		
VL ILLUM CANNISTER, 120MM		2022	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	May 2022	Sep 2023	6,612	303.36	Y		
FIN ASSEMBLY, M31		2022	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	May 2022	Aug 2023	6,612	41.67	Y		
METAL CONTAINER PA 154, 120MM		2022	BWAY / ATLANTA, GA	Option / IDIQ	PICATINNY ARSENAL, NJ	May 2022	Aug 2023	3,338	74.25	Y		
PARACHUTE, 120MM		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2022	Oct 2023	6,612	54.61	Y		
FIBER CONTAINER PA 167, 120MM		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2022	Aug 2023	6,612	13.89	Y		
120MM ILLUM BODY		2022	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	May 2022	Aug 2023	6,612	161.37	Y		
FUZE MTSQ, M776		2022	JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY	SS / FFP	ROCK ISLAND ARSENAL, IL	May 2022	Oct 2023	6,612	260.18	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	670.198	49.399	28.440	34.857	-	34.857
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	670.198	49.399	28.440	34.857	-	34.857
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**670.198**	**49.399**	**28.440**	**34.857**	**-**	**34.857**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	82.66	521,384	43.095	84.16	119,800	10.082	93.06	63,642	5.923	91.18	73,371	6.690	-	-	-	91.18	73,371	6.690
FIN ASSEMBLY, M31(†)	42.75	537,025	22.960	40.05	123,394	4.942	41.66	65,551	2.731	42.49	75,572	3.211	-	-	-	42.49	75,572	3.211
IGNITION CARTRIDGE, M1020(†)	22.97	537,025	12.338	23.81	123,394	2.938	25.12	65,551	1.647	25.01	75,572	1.890	-	-	-	25.01	75,572	1.890
PROPELLANT CHARGE, M234A1(†)	44.98	956,446	43.025	21.49	493,576	10.607	22.11	262,205	5.797	25.49	302,288	7.705	-	-	-	25.49	302,288	7.705
SHELL BODY, 120MM FRPC(†)	244.13	239,111	58.374	130.52	123,394	16.105	124.75	65,551	8.177	135.79	75,572	10.262	-	-	-	135.79	75,572	10.262
FUZE PRACTICE, M781(†)	46.26	239,111	11.061	21.09	123,394	2.602	21.56	65,551	1.413	23.41	75,572	1.769	-	-	-	23.41	75,572	1.769
Subtotal: Recurring Cost	-	-	*190.852*	-	-	*47.277*	-	-	*25.688*	-	-	*31.527*	-	-	-	-	-	*31.527*
Subtotal: Hardware Cost	**-**	**-**	***190.852***	**-**	**-**	***47.277***	**-**	**-**	***25.688***	**-**	**-**	***31.527***	**-**	**-**	**-**	**-**	**-**	***31.527***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	2.332	-	-	0.168	-	-	0.490	-	-	0.524	-	-	-	-	-	0.524
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***2.332***	**-**	**-**	***0.168***	**-**	**-**	***0.490***	**-**	**-**	***0.524***	**-**	**-**	**-**	**-**	**-**	***0.524***
Support - Engineering Change Proposals Cost																		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	***0.450***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	476.563	-	-	1.954	-	-	2.261	-	-	2.805	-	-	-	-	-	2.805
Subtotal: Support - Production Engineering Cost	**-**	**-**	***476.563***	**-**	**-**	***1.954***	**-**	**-**	***2.261***	**-**	**-**	***2.805***	**-**	**-**	**-**	**-**	**-**	***2.805***
Gross/Weapon System Cost	**-**	**-**	**670.198**	**-**	**-**	**49.399**	**-**	**-**	**28.440**	**-**	**-**	**34.857**	**-**	**-**	**-**	**-**	**-**	**34.857**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)(†)		2021	GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA	Option / FFP	PICATINNY ARSENAL, NJ	Dec 2020	Aug 2023	119,800	84.16	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		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	May 2023	Nov 2026	73,371	91.18	Y		
FIN ASSEMBLY, M31		2021	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	123,394	40.05	Y		
FIN ASSEMBLY, M31		2022	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	65,551	41.66	Y		
FIN ASSEMBLY, M31		2023	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	75,572	42.49	Y		
IGNITION CARTRIDGE, M1020		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2020	Jun 2022	123,394	23.81	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		
IGNITION CARTRIDGE, M1020		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	75,572	25.01	Y		
PROPELLANT CHARGE, M234A1		2021	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	493,576	21.49	Y		
PROPELLANT CHARGE, M234A1		2022	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	262,205	22.11	Y		
PROPELLANT CHARGE, M234A1		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	302,288	25.49	Y		
SHELL BODY, 120MM FRPC		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Jul 2021	Jan 2023	123,394	130.52	Y		
SHELL BODY, 120MM FRPC		2022	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2022	Aug 2023	65,551	124.75	Y		
SHELL BODY, 120MM FRPC		2023	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	75,572	135.79	Y		
FUZE PRACTICE, M781		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2020	Jun 2022	123,394	21.09	Y		
FUZE PRACTICE, M781		2022	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	65,551	21.56	Y		
FUZE PRACTICE, M781		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	75,572	23.41	Y		

(†) indicates the presence of a P-21

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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, 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. Fuze: IDIQ awarded (FY 2018) to Nammo Pocal Industries, Scranton, PA. Shell Bodies, IDIQ awarded (FY 2018) to General Dynamics OTS, Wilkes Barre, PA.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 521384																															
	1	2021	ARMY	119.800	.000	119.800			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	119.800
	1	2022	ARMY	63.642	.000	63.642																				A -	-	-	-	-	63.642
	2	2023	ARMY	73.371	.000	73.371																									73.371
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 521384																															
	1	2021	ARMY	119.800	.000	119.800	-	-	-	-	-	-	-	-	-	-	24.000	24.000	24.000	24.000	12.000	11.800									.000
	1	2022	ARMY	63.642	.000	63.642	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.000	12.000	12.000	12.000	15.642	.000
	2	2023	ARMY	73.371	.000	73.371								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73.371
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
COO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 521384																															
	1	2021	ARMY	119.800	119.800	.000																									.000
	1	2022	ARMY	63.642	63.642	.000																									.000
	2	2023	ARMY	73.371	.000	73.371	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73.371
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2027												Fiscal Year 2028												BALANCE
							Calendar Year 2027												Calendar Year 2028												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2026	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 521384																															
	1	2021	ARMY	119.800	119.800	.000																									.000
	1	2022	ARMY	63.642	63.642	.000																									.000
	2	2023	ARMY	73.371	.000	73.371	-	24.000	24.000	13.371	12.000																				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	5	5	42	47	5	5	42	47
2	TO BE SELECTED - TBS01	10,000	12,000	24,000	8	8	42	50	8	8	42	50

"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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	274.909	29.519	18.792	19.871	-	19.871
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	274.909	29.519	18.792	19.871	-	19.871
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**274.909**	**29.519**	**18.792**	**19.871**	**-**	**19.871**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	388.86	58,252	22.652	342.87	18,801	6.446	385.59	13,843	5.338	440.33	13,214	5.819	-	-	-	440.33	13,214	5.819
FIN ASSEMBLY, M31(†)	41.25	59,999	2.475	40.95	19,365	0.793	41.66	14,258	0.594	42.49	13,610	0.578	-	-	-	42.49	13,610	0.578
IGNITION CARTRIDGE, M1020(†)	23.15	59,999	1.389	26.91	19,365	0.521	25.12	14,258	0.358	25.01	13,610	0.340	-	-	-	25.01	13,610	0.340
PROPELLANT CHARGE, M234A1(†)	20.99	239,998	5.038	21.49	77,460	1.665	22.11	57,033	1.261	25.49	54,441	1.388	-	-	-	25.49	54,441	1.388
SHELL BODY, 120MM SMK(†)	228.49	59,999	13.709	443.82	19,365	8.595	234.37	14,258	3.342	257.65	13,610	3.507	-	-	-	257.65	13,610	3.507
BURSTER HOUSING, 120MM SMOKE(†)	87.49	59,999	5.249	76.29	19,365	1.477	77.81	14,258	1.109	91.21	13,610	1.241	-	-	-	91.21	13,610	1.241
FUZE MOFM, M734A1(†)	241.47	59,999	14.488	249.17	19,365	4.825	254.14	14,258	3.624	259.23	13,610	3.528	-	-	-	259.23	13,610	3.528
BURSTER ASSEMBLY, M86(†)	49.88	59,999	2.993	66.44	19,365	1.287	67.77	14,258	0.966	64.02	13,610	0.871	-	-	-	64.02	13,610	0.871
FIBER CONTAINER PA 167, 120MM(†)	12.68	59,999	0.760	13.39	19,365	0.259	13.89	14,258	0.198	13.93	13,610	0.190	-	-	-	13.93	13,610	0.190

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	63.07	30,291	1.910	64.95	9,777	0.635	74.25	7,198	0.534	69.15	6,871	0.475	-	-	-	69.15	6,871	0.475
Subtotal: Recurring Cost	-	-	*70.663*	-	-	*26.503*	-	-	*17.324*	-	-	*17.937*	-	-	-	-	-	*17.937*
Subtotal: Hardware Cost	**-**	**-**	***70.663***	**-**	**-**	***26.503***	**-**	**-**	***17.324***	**-**	**-**	***17.937***	**-**	**-**	**-**	**-**	**-**	***17.937***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.520	-	-	0.280	-	-	0.140	-	-	0.141	-	-	-	-	-	0.141
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.520***	**-**	**-**	***0.280***	**-**	**-**	***0.140***	**-**	**-**	***0.141***	**-**	**-**	**-**	**-**	**-**	***0.141***
Support - Production Engineering Cost																		
Production Engineering	-	-	203.725	-	-	2.736	-	-	1.328	-	-	1.793	-	-	-	-	-	1.793
Subtotal: Support - Production Engineering Cost	**-**	**-**	***203.725***	**-**	**-**	***2.736***	**-**	**-**	***1.328***	**-**	**-**	***1.793***	**-**	**-**	**-**	**-**	**-**	***1.793***
Gross/Weapon System Cost	**-**	**-**	**274.909**	**-**	**-**	**29.519**	**-**	**-**	**18.792**	**-**	**-**	**19.871**	**-**	**-**	**-**	**-**	**-**	**19.871**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)(†)		2021	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Feb 2021	Feb 2024	18,801	342.87	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		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Feb 2023	Feb 2026	13,214	440.33	Y		
FIN ASSEMBLY, M31		2021	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2020	Oct 2021	19,365	40.95	Y		
FIN ASSEMBLY, M31		2022	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	14,258	41.66	Y		
FIN ASSEMBLY, M31		2023	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	13,610	42.49	Y		
IGNITION CARTRIDGE, M1020		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2020	Jun 2022	19,365	26.91	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		
IGNITION CARTRIDGE, M1020		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	13,610	25.01	Y		
PROPELLANT CHARGE, M234A1		2021	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	77,460	21.49	Y		
PROPELLANT CHARGE, M234A1		2022	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	57,033	22.11	Y		
PROPELLANT CHARGE, M234A1		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	54,441	25.49	Y		
SHELL BODY, 120MM SMK		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Jul 2021	Jan 2023	19,365	443.82	Y		
SHELL BODY, 120MM SMK		2022	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2022	Aug 2023	14,258	234.37	Y		
SHELL BODY, 120MM SMK		2023	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	13,610	257.65	Y		
BURSTER HOUSING, 120MM SMOKE		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	19,365	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		
BURSTER HOUSING, 120MM SMOKE		2023	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	13,610	91.21	Y		
FUZE MOFM, M734A1		2021	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2023	19,365	249.17	Y		

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
FUZE MOFM, M734A1		2022	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2024	14,258	254.14	Y		
FUZE MOFM, M734A1		2023	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	13,610	259.23	Y		
BURSTER ASSEMBLY, M86		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	19,365	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		
BURSTER ASSEMBLY, M86		2023	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	13,610	64.02	Y		
FIBER CONTAINER PA 167, 120MM		2021	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Sep 2021	Mar 2022	19,365	13.39	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		
FIBER CONTAINER PA 167, 120MM		2023	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	13,610	13.93	Y		
METAL CONTAINER PA 154, 120MM		2021	BWAY CORPORATION / ATLANTA, GA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	9,777	64.95	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		
METAL CONTAINER PA 154, 120MM		2023	BWAY CORPORATION / ATLANTA, GA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	6,871	69.15	Y		

(†) 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.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 58252																															
	1	2021	ARMY	18.801	.000	18.801					A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.801
	1	2022	ARMY	13.843	.000	13.843																A -	-	-	-	-	-	-	-	-	13.843
	1	2023	ARMY	13.214	.000	13.214																									13.214
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 58252																															
	1	2021	ARMY	18.801	.000	18.801	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.000	9.801							.000
	1	2022	ARMY	13.843	.000	13.843	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.843
	1	2023	ARMY	13.214	.000	13.214					A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.214
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 58252																															
	1	2021	ARMY	18.801	18.801	.000																									.000
	1	2022	ARMY	13.843	.000	13.843	-	-	-	7.000	6.843																				.000
	1	2023	ARMY	13.214	.000	13.214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.607	6.607							.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	5	5	36	41	5	5	36	41

"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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	166.706	19.573	14.388	15.245	-	15.245
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	166.706	19.573	14.388	15.245	-	15.245
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**166.706**	**19.573**	**14.388**	**15.245**	**-**	**15.245**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	131.17	64,339	8.439	142.76	25,977	3.708	161.04	15,703	2.529	151.48	15,962	2.418	-	-	-	151.48	15,962	2.418
SHELL BODY, 120MM HE(†)	114.55	66,516	7.620	135.18	26,756	3.617	132.92	16,174	2.150	140.64	16,440	2.312	-	-	-	140.64	16,440	2.312
IGNITION CARTRIDGE, M1020(†)	22.97	66,516	1.528	26.91	26,756	0.720	25.12	16,174	0.406	25.01	16,440	0.411	-	-	-	25.01	16,440	0.411
COMP B TYPE I GRADE A(†)	14.95	360,003	5.382	-	-	-	14.07	141,327	1.988	14.35	143,658	2.061	-	-	-	14.35	143,658	2.061
*COMP B TYPE I GRADE A(†)	13.52	191,826	2.593	13.80	233,793	3.226	-	-	-	-	-	-	-	-	-	-	-	-
PROPELLANT CHARGE, M234A1(†)	17.66	266,070	4.698	21.49	107,025	2.300	22.11	64,696	1.430	25.49	65,763	1.676	-	-	-	25.49	65,763	1.676
FIN ASSEMBLY, M31(†)	36.94	66,516	2.457	40.05	26,756	1.072	41.66	16,174	0.674	42.49	16,440	0.699	-	-	-	42.49	16,440	0.699
FUZE MOFM, M734A1(†)	223.04	66,516	14.836	249.17	26,756	6.667	254.14	16,174	4.110	259.23	16,440	4.262	-	-	-	259.23	16,440	4.262
PBXW-12 BULK EXPLOSIVE(†)	-	-	-	109.89	2,857	0.314	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*47.553*	-	-	*21.624*	-	-	*13.288*	-	-	*13.839*	-	-	-	-	-	*13.839*

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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: Hardware Cost	-	-	47.553	-	-	21.624	-	-	13.288	-	-	13.839	-	-	-	-	-	13.839
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.218	-	-	0.140	-	-	0.180	-	-	0.181	-	-	-	-	-	0.181
Subtotal: Support - Acceptance Testing Cost	-	-	0.218	-	-	0.140	-	-	0.180	-	-	0.181	-	-	-	-	-	0.181
Support - Government Furnished Materials Cost																		
Government Furnished Materials	-	-	-2.593	-	-	-3.226	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Government Furnished Materials Cost	-	-	-2.593	-	-	-3.226	-	-	-	-	-	-	-	-	-	-	-	-
Support - Product Improvement Cost																		
Reliability	-	-	3.160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Safety	-	-	0.057	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	-	-	3.217	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
Production Engineering	-	-	118.310	-	-	1.035	-	-	0.920	-	-	1.224	-	-	-	-	-	1.224
Subtotal: Support - Production Engineering Cost	-	-	118.310	-	-	1.035	-	-	0.920	-	-	1.224	-	-	-	-	-	1.224
Gross/Weapon System Cost	-	-	166.706	-	-	19.573	-	-	14.388	-	-	15.245	-	-	-	-	-	15.245

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2021	GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2020	Dec 2023	25,977	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		
LOAD, ASSEMBLE, PACK (LAP)		2023	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Feb 2026	15,962	151.48	Y		
SHELL BODY, 120MM HE		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Jul 2021	Jan 2023	26,756	135.18	Y		
SHELL BODY, 120MM HE		2022	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2022	Aug 2023	16,174	132.92	Y		
SHELL BODY, 120MM HE		2023	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	16,440	140.64	Y		
IGNITION CARTRIDGE, M1020		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2020	Jun 2022	26,756	26.91	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		
IGNITION CARTRIDGE, M1020		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	16,440	25.01	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		2023	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Feb 2024	143,658	14.35	Y		
*COMP B TYPE I GRADE A		2021	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	PICATINNY ARSENAL, NJ	Sep 2019	Sep 2019	233,793	13.80	N		
PROPELLANT CHARGE, M234A1		2021	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	107,025	21.49	Y		
PROPELLANT CHARGE, M234A1		2022	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	64,696	22.11	Y		
PROPELLANT CHARGE, M234A1		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	65,763	25.49	Y		
FIN ASSEMBLY, M31		2021	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2020	Jun 2021	26,756	40.05	Y		
FIN ASSEMBLY, M31		2022	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	16,174	41.66	Y		
FIN ASSEMBLY, M31		2023	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	16,440	42.49	Y		
FUZE MOFM, M734A1		2021	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	Option / FFP	PICATINNY ARSENAL, NJ	Jan 2021	Jul 2023	26,756	249.17	Y		

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
FUZE MOFM, M734A1		2022	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	16,174	254.14	Y		
FUZE MOFM, M734A1		2023	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2025	16,440	259.23	Y		
PBXW-12 BULK EXPLOSIVE		2021	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	2,857	109.89	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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [CA07]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	205.531	13.745	-	27.250	-	27.250
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	205.531	13.745	-	27.250	-	27.250
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**205.531**	**13.745**	**-**	**27.250**	**-**	**27.250**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	43.95	187,562	8.244	444.83	7,552	3.359	-	-	-	472.52	15,795	7.463	-	-	-	472.52	15,795	7.463
FUZE MTSQ, M776(†)	223.84	65,647	14.695	228.32	7,779	1.776	-	-	-	237.44	16,268	3.863	-	-	-	237.44	16,268	3.863
120MM ILLUM BODY(†)	295.75	193,189	57.135	301.66	7,779	2.347	-	-	-	164.58	16,268	2.677	-	-	-	164.58	16,268	2.677
PROPELLANT CHARGE, M234A1(†)	21.07	772,754	16.281	21.49	31,114	0.669	-	-	-	25.49	65,075	1.659	-	-	-	25.49	65,075	1.659
METAL CONTAINER PA 154, 120MM(†)	63.68	65,647	4.180	64.95	3,889	0.253	-	-	-	69.15	8,213	0.568	-	-	-	69.15	8,213	0.568
IR ILLUM CANNISTER, 120MM(†)	356.87	65,647	23.428	364.01	7,779	2.832	-	-	-	378.71	16,268	6.161	-	-	-	378.71	16,268	6.161
IGNITION CARTRIDGE, M1020(†)	26.38	193,189	5.097	26.91	7,779	0.209	-	-	-	25.01	16,268	0.407	-	-	-	25.01	16,268	0.407
PARACHUTE, 120MM(†)	54.76	193,189	10.578	55.85	7,779	0.434	-	-	-	58.10	16,268	0.945	-	-	-	58.10	16,268	0.945
FIBER CONTAINER PA 167, 120MM(†)	13.62	193,189	2.631	13.39	7,779	0.104	-	-	-	13.93	16,268	0.227	-	-	-	13.93	16,268	0.227

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [CA07]
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	40.15	193,189	7.756	40.95	7,779	0.319	-	-	-	42.49	16,268	0.691	-	-	-	42.49	16,268	0.691
Subtotal: Recurring Cost	-	-	*150.023*	-	-	*12.301*	-	-	-	-	-	*24.661*	-	-	-	-	-	*24.661*
Subtotal: Hardware Cost	**-**	**-**	***150.023***	**-**	**-**	***12.301***	**-**	**-**	**-**	**-**	**-**	***24.661***	**-**	**-**	**-**	**-**	**-**	***24.661***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	45.006	-	-	0.142	-	-	-	-	-	0.132	-	-	-	-	-	0.132
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***45.006***	**-**	**-**	***0.142***	**-**	**-**	**-**	**-**	**-**	***0.132***	**-**	**-**	**-**	**-**	**-**	***0.132***
Support - Production Engineering Cost																		
Production Engineering	-	-	10.502	-	-	1.302	-	-	-	-	-	2.457	-	-	-	-	-	2.457
Subtotal: Support - Production Engineering Cost	**-**	**-**	***10.502***	**-**	**-**	***1.302***	**-**	**-**	**-**	**-**	**-**	***2.457***	**-**	**-**	**-**	**-**	**-**	***2.457***
Gross/Weapon System Cost	**-**	**-**	**205.531**	**-**	**-**	**13.745**	**-**	**-**	**-**	**-**	**-**	**27.250**	**-**	**-**	**-**	**-**	**-**	**27.250**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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 [CA07]

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)(†)		2021	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Jan 2021	Aug 2023	7,552	444.83	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2025	15,795	472.52	Y		
FUZE MTSQ, M776		2021	JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY	SS / FFP	ROCK ISLAND ARSENAL, IL	Feb 2021	Oct 2022	7,779	228.32	Y		
FUZE MTSQ, M776		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	16,268	237.44	Y		
120MM ILLUM BODY		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	May 2021	Nov 2022	7,779	301.66	Y		
120MM ILLUM BODY		2023	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	16,268	164.58	Y		
PROPELLANT CHARGE, M234A1		2021	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	31,114	21.49	Y		
PROPELLANT CHARGE, M234A1		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	65,075	25.49	Y		
METAL CONTAINER PA 154, 120MM		2021	BWAY CORPORATION / ATLANTA, GA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	3,889	64.95	Y		
METAL CONTAINER PA 154, 120MM		2023	BWAY CORPORATION / ATLANTA, GA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	8,213	69.15	Y		
IR ILLUM CANNISTER, 120MM		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Jan 2021	Sep 2022	7,779	364.01	Y		
IR ILLUM CANNISTER, 120MM		2023	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2023	Oct 2024	16,268	378.71	Y		
IGNITION CARTRIDGE, M1020		2021	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	7,779	26.91	Y		
IGNITION CARTRIDGE, M1020		2023	NAMMO POCAL INC. / SCRANTON, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	16,268	25.01	Y		
PARACHUTE, 120MM		2021	YOLAND CORPORATION / BROOKLYN, NY	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	7,779	55.85	Y		
PARACHUTE, 120MM		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	16,268	58.10	Y		
FIBER CONTAINER PA 167, 120MM		2021	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2021	Aug 2022	7,779	13.39	Y		
FIBER CONTAINER PA 167, 120MM		2023	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	16,268	13.93	Y		
FIN ASSEMBLY, M31		2021	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	7,779	40.95	Y		

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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 [CA07]

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
FIN ASSEMBLY, M31		2023	MACHINING TECHNOLOGIES INC / SALISBURY, MD	Option / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	16,268	42.49	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 [CA07]

Cost Elements (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 187562																															
	1	2021	ARMY	7.552	.000	7.552				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.552
	1	2023	ARMY	15.795	.000	15.795																									15.795
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 [CA07]

Cost Elements (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 187562																															
	1	2021	ARMY	7.552	.000	7.552	-	-	-	-	-	-	-	-	-	-	7.552														.000
	1	2023	ARMY	15.795	.000	15.795					A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.795
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 [CA07]

Cost Elements (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 187562																															
	1	2021	ARMY	7.552	7.552	.000																									.000
	1	2023	ARMY	15.795	.000	15.795	-	-	-	-	-	-	-	-	-	-	12.000	3.795													.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 [CA07]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	5,000	12,000	16,000	5	5	30	35	5	5	30	35

"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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	3,753.179	231.955	204.003	296.943	-	296.943	295.349	379.073	383.854	391.497	-	5,935.853
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3,753.179	231.955	204.003	296.943	-	296.943	295.349	379.073	383.854	391.497	-	5,935.853
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3,753.179**	**231.955**	**204.003**	**296.943**	**-**	**296.943**	**295.349**	**379.073**	**383.854**	**391.497**	**-**	**5,935.853**
(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 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

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

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.

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	E22125 / CTG, 105mm Tank TPDS-T, M724A2 (Short Rg KE Trnr) [CA58]	P-5a	A		- / 44.666	- / 8.827	- / -	- / 6.952	- / -	- / 6.952
P-5	E73201 / CTG, 120mm Tank, M1002 TP MULTI PUR-TRACE (TPMP-T) [CA31]	P-5a, P-21	A		- / 615.474	- / 57.927	- / 70.353	- / 80.557	- / -	- / 80.557
P-5	E73400 / CTG, 120mm Tank TPCSDS-T, M865 [CA69]	P-5a, P-21	A		- / 2,786.676	- / 51.191	- / 87.537	- / 125.886	- / -	- / 125.886
P-5	E88105 / CTG, 120MM TANK, HEMP-T, XM1147 [CA71]	P-5a, P-21	B		- / 18.655	- / 38.989	- / 23.359	- / 25.204	- / -	- / 25.204
P-5	E88106 / CTG, 120mm Tank APFSDS-T, M829A4 [CA64]	P-5a, P-21	A		- / 287.708	- / 75.021	- / 22.754	- / 58.344	- / -	- / 58.344
P-40	**Total Gross/Weapon System Cost**				**- / 3,753.179**	**- / 231.955**	**- / 204.003**	**- / 296.943**	**- / -**	**- / 296.943**

*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 2023 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 2023 Total Base dollars in the amount of $296.943 million supports the procurement of 68,207 cartridges.

(E22125) M724A2 - This is a training unique item not used in combat. The FY2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $6.952 million supports the procurement of 1,943 cartridges

TYPE CLASSIFICATION DATE: 2016

(E73201) M1002 (TPMP-T) - This is a training unique item not used in combat. FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $80.557 million supports the procurement of 24,928 cartridges.

TYPE CLASSIFICATION DATE: 2006

(E73400) M865A1 (Longer Length) - This is a training unique item not used in combat. FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $125.886 million supports the procurement of 35,806 cartridges.

TYPE CLASSIFICATION DATE: 1984

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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 2023 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $23.907 million supports the procurement of 2,644 cartridges. FY 2023 Base dollars in the amount of $1.297 million support the COCOM requirement for procurement of 165, XM1147 (HEMP-T) Advanced Multi Purpose (AMP) cartridges to deter potential adversaries and support European Deterrence Initiative.

TYPE CLASSIFICATION DATE: 2020

(E88106) M829A4 (APFSDS-T) - This is a war reserve item used in combat. FY 2023 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $58.344 million supports the procurement of 2,721 cartridges.

TYPE CLASSIFICATION DATE: 2015

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	44.666	8.827	-	6.952	-	6.952
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	44.666	8.827	-	6.952	-	6.952
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**44.666**	**8.827**	**-**	**6.952**	**-**	**6.952**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	2,439.77	2,472	6.031	-	-	-	2,538.33	1,943	4.932	-	-	-	2,538.33	1,943	4.932
Subtotal: Recurring Cost	-	-	*33.763*	-	-	*6.031*	-	-	-	-	-	*4.932*	-	-	-	-	-	*4.932*
Subtotal: Hardware Cost	**-**	**-**	***33.763***	**-**	**-**	***6.031***	**-**	**-**	**-**	**-**	**-**	***4.932***	**-**	**-**	**-**	**-**	**-**	***4.932***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	0.299	-	-	-	-	-	-	-	-	-	-	-	-
First Article Test	-	-	2.509	-	-	0.682	-	-	-	-	-	0.589	-	-	-	-	-	0.589
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***2.509***	**-**	**-**	***0.981***	**-**	**-**	**-**	**-**	**-**	***0.589***	**-**	**-**	**-**	**-**	**-**	***0.589***
Support - Product Improvement Cost																		
Safety	-	-	-	-	-	0.538	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	**-**	**-**	**-**	***0.538***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	8.394	-	-	1.277	-	-	-	-	-	1.431	-	-	-	-	-	1.431
Subtotal: Support - Production Engineering Cost	**-**	**-**	***8.394***	**-**	**-**	***1.277***	**-**	**-**	**-**	**-**	**-**	***1.431***	**-**	**-**	**-**	**-**	**-**	***1.431***
Gross/Weapon System Cost	**-**	**-**	**44.666**	**-**	**-**	**8.827**	**-**	**-**	**-**	**-**	**-**	**6.952**	**-**	**-**	**-**	**-**	**-**	**6.952**

Remarks:

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

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

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND		2021	GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL	Option / FFP	PICATINNY ARSENAL, NJ	May 2021	May 2022	2,472	2,439.77	Y		
COMPLETE ROUND		2023	GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL	Option / FFP	PICATINNY ARSENAL, NJ	Mar 2023	May 2024	1,943	2,538.33	Y		

Remarks:
The M724A2 round is procured via a skip year strategy.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	615.474	57.927	70.353	80.557	-	80.557
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	615.474	57.927	70.353	80.557	-	80.557
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**615.474**	**57.927**	**70.353**	**80.557**	**-**	**80.557**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	2,183.92	261,489	571.071	2,376.24	22,109	52.536	2,816.11	23,139	65.162	2,955.85	24,928	73.683	-	-	-	2,955.85	24,928	73.683
Subtotal: Recurring Cost	-	-	*571.072*	-	-	*52.536*	-	-	*65.162*	-	-	*73.683*	-	-	-	-	-	*73.683*
Subtotal: Hardware Cost	**-**	**-**	***571.072***	**-**	**-**	***52.536***	**-**	**-**	***65.162***	**-**	**-**	***73.683***	**-**	**-**	**-**	**-**	**-**	***73.683***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	4.364	-	-	0.475	-	-	0.625	-	-	0.974	-	-	-	-	-	0.974
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***4.364***	**-**	**-**	***0.475***	**-**	**-**	***0.625***	**-**	**-**	***0.974***	**-**	**-**	**-**	**-**	**-**	***0.974***
Support - Non-Recurring Support Cost																		
Value Engineering	-	-	-	-	-	0.419	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Non-Recurring Support Cost	**-**	**-**	**-**	**-**	**-**	***0.419***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Product Improvement Cost																		
Production Verification Test	-	-	2.192	-	-	0.148	-	-	-	-	-	-	-	-	-	-	-	-
Reliability	-	-	4.557	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Safety	-	-	5.860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***12.609***	**-**	**-**	***0.148***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	27.399	-	-	4.345	-	-	4.562	-	-	5.896	-	-	-	-	-	5.896
Subtotal: Support - Production Engineering Cost	**-**	**-**	***27.399***	**-**	**-**	***4.345***	**-**	**-**	***4.562***	**-**	**-**	***5.896***	**-**	**-**	**-**	**-**	**-**	***5.896***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.030	-	-	0.004	-	-	0.004	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.030***	**-**	**-**	***0.004***	**-**	**-**	***0.004***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**615.474**	**-**	**-**	**57.927**	**-**	**-**	**70.353**	**-**	**-**	**80.557**	**-**	**-**	**-**	**-**	**-**	**80.557**

Remarks:
Ammunition costs are increasing greater than the historical inflation rates of 2-3% due to significant increases to metals and manufacturing labor costs.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND(†)		2021	GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Feb 2022	12,160	2,376.24	Y		
COMPLETE ROUND(†)		2021	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Feb 2022	9,949	2,376.24	Y		
COMPLETE ROUND(†)		2022	TO BE SELECTED / TBS02	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Feb 2023	12,726	2,816.11	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(†)		2023	TO BE SELECTED / TBS02	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Feb 2024	13,710	2,955.85	Y		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Feb 2024	11,218	2,955.85	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.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 261489																															
	3	2021	ARMY	12.160	.000	12.160						A -	-	-	-	-	-	-	-	-	-	-	1.070	.480	1.061	1.061	1.061	1.061	1.061	1.061	4.244
	4	2021	ARMY	9.949	.000	9.949						A -	-	-	-	-	-	-	-	-	-	-	.830	.829	.829	.829	.829	.829	.829	.829	3.316
	1	2022	ARMY	12.726	.000	12.726																		A -	-	-	-	-	-	-	12.726
	2	2022	ARMY	10.413	.000	10.413																		A -	-	-	-	-	-	-	10.413
	1	2023	ARMY	13.710	.000	13.710																									13.710
	2	2023	ARMY	11.218	.000	11.218																									11.218
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 261489																															
	3	2021	ARMY	12.160	7.916	4.244	1.061	1.061	1.061	1.061																					.000
	4	2021	ARMY	9.949	6.633	3.316	.829	.829	.829	.829																					.000
	1	2022	ARMY	12.726	.000	12.726	-	-	-	-	1.392	1.386	1.386	1.386	1.386	1.386	1.386	1.386	1.386	.246											.000
	2	2022	ARMY	10.413	.000	10.413	-	-	-	-	1.139	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134	.202											.000
	1	2023	ARMY	13.710	.000	13.710						A -	-	-	-	-	-	-	-	-	-	-	1.148	1.142	1.142	1.142	1.142	1.142	1.142	1.142	4.568
	2	2023	ARMY	11.218	.000	11.218						A -	-	-	-	-	-	-	-	-	-	-	.944	.934	.934	.934	.934	.934	.934	.934	3.736
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 261489																															
	3	2021	ARMY	12.160	12.160	.000																									.000
	4	2021	ARMY	9.949	9.949	.000																									.000
	1	2022	ARMY	12.726	12.726	.000																									.000
	2	2022	ARMY	10.413	10.413	.000																									.000
	1	2023	ARMY	13.710	9.142	4.568	1.142	1.142	1.142	1.142																					.000
	2	2023	ARMY	11.218	7.482	3.736	.934	.934	.934	.934																					.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	500	8,000	24,000	6	6	11	17	6	6	11	17
2	TO BE SELECTED - TBS01	500	8,000	24,000	6	6	11	17	6	6	11	17
3	GENERAL DYNAMICS ORD AND TACT - ST PETERSBURG, FL	500	8,000	24,000	6	6	11	17	6	6	11	17
4	NORTHROP GRUMMAN INNOVATION - PLYMOUTH, MN	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,786.676	51.191	87.537	125.886	-	125.886
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,786.676	51.191	87.537	125.886	-	125.886
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,786.676**	**51.191**	**87.537**	**125.886**	**-**	**125.886**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	722.24	3,787,670	2,735.588	3,167.38	14,048	44.495	2,724.36	30,736	83.736	3,335.02	35,806	119.414	-	-	-	3,335.02	35,806	119.414
Subtotal: Recurring Cost	-	-	*2,735.588*	-	-	*44.495*	-	-	*83.736*	-	-	*119.414*	-	-	-	-	-	*119.414*
Subtotal: Hardware Cost	**-**	**-**	***2,735.588***	**-**	**-**	***44.495***	**-**	**-**	***83.736***	**-**	**-**	***119.414***	**-**	**-**	**-**	**-**	**-**	***119.414***
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceptance Test	-	-	3.694	-	-	0.582	-	-	-	-	-	0.651	-	-	-	-	-	0.651
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***4.094***	**-**	**-**	***0.582***	**-**	**-**	**-**	**-**	**-**	***0.651***	**-**	**-**	**-**	**-**	**-**	***0.651***
Support - Product Improvement Cost																		
Reliability	-	-	14.341	-	-	0.584	-	-	-	-	-	-	-	-	-	-	-	-
Safety	-	-	8.791	-	-	1.797	-	-	-	-	-	-	-	-	-	-	-	-
Production Qualification Test	-	-	-	-	-	0.394	-	-	-	-	-	-	-	-	-	-	-	-
Production Verification Test	-	-	-	-	-	0.061	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***23.132***	**-**	**-**	***2.836***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	23.846	-	-	3.274	-	-	3.801	-	-	5.809	-	-	-	-	-	5.809

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Production Engineering Cost	-	-	***23.846***	-	-	***3.274***	-	-	***3.801***	-	-	***5.809***	-	-	-	-	-	***5.809***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.017	-	-	0.004	-	-	-	-	-	0.012	-	-	-	-	-	0.012
Subtotal: Support - Quality Assurance Cost	-	-	***0.017***	-	-	***0.004***	-	-	-	-	-	***0.012***	-	-	-	-	-	***0.012***
Gross/Weapon System Cost	-	-	**2,786.676**	-	-	**51.191**	-	-	**87.537**	-	-	**125.886**	-	-	-	-	-	**125.886**

Remarks:
Ammunition costs are increasing greater than the historical inflation rates of 2-3%, due to significant increases to metals and manufacturing labor costs.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND(†)		2021	GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	7,024	3,167.38	Y		
COMPLETE ROUND(†)		2021	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	7,024	3,167.38	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		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	17,903	3,335.02	Y		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS02	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	17,903	3,335.02	Y		

(†) indicates the presence of a P-21

Remarks:
The unit cost increase in FY 2023 is due to using the estimated average unit cost of two vendors and the associated quantity range prices.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 3787670																															
	1	2021	ARMY	7.024	.000	7.024						A -	-	-	-	-	-	-	-	-	-	-	-	.589	.585	.585	.585	.585	.585	.585	2.925
	2	2021	ARMY	7.024	.000	7.024						A -	-	-	-	-	-	-	-	-	-	-	-	.589	.585	.585	.585	.585	.585	.585	2.925
	3	2022	ARMY	12.294	.000	12.294																		A -	-	-	-	-	-	-	12.294
	4	2022	ARMY	18.442	.000	18.442																		A -	-	-	-	-	-	-	18.442
	3	2023	ARMY	17.903	.000	17.903																									17.903
	4	2023	ARMY	17.903	.000	17.903																									17.903
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 3787670																															
	1	2021	ARMY	7.024	4.099	2.925	.585	.585	.585	.585	.585																				.000
	2	2021	ARMY	7.024	4.099	2.925	.585	.585	.585	.585	.585																				.000
	3	2022	ARMY	12.294	.000	12.294	-	-	-	-	-	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.030								.000
	4	2022	ARMY	18.442	.000	18.442	-	-	-	-	-	1.546	1.536	1.536	1.536	1.536	1.536	1.536	1.536	1.536	1.536	1.536	1.536								.000
	3	2023	ARMY	17.903	.000	17.903						A -	-	-	-	-	-	-	-	-	-	-	-	1.502	1.491	1.491	1.491	1.491	1.491	1.491	7.455
	4	2023	ARMY	17.903	.000	17.903						A -	-	-	-	-	-	-	-	-	-	-	-	1.502	1.491	1.491	1.491	1.491	1.491	1.491	7.455
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 3787670																															
	1	2021	ARMY	7.024	7.024	.000																									.000
	2	2021	ARMY	7.024	7.024	.000																									.000
	3	2022	ARMY	12.294	12.294	.000																									.000
	4	2022	ARMY	18.442	18.442	.000																									.000
	3	2023	ARMY	17.903	10.448	7.455	1.491	1.491	1.491	1.491	1.491																				.000
	4	2023	ARMY	17.903	10.448	7.455	1.491	1.491	1.491	1.491	1.491																				.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	12	18	6	6	12	18
2	NORTHROP GRUMMAN INNOVATION - PLYMOUTH, MN	500	8,000	24,000	6	6	12	18	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	800	2,400	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	18.655	38.989	23.359	25.204	-	25.204
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	18.655	38.989	23.359	25.204	-	25.204
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**18.655**	**38.989**	**23.359**	**25.204**	**-**	**25.204**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	655	9.305	6,500.00	3,940	25.610	8,091.07	2,557	20.689	7,817.06	2,809	21.958	-	-	-	7,817.06	2,809	21.958
Subtotal: Recurring Cost	-	-	*9.305*	-	-	*25.610*	-	-	*20.689*	-	-	*21.958*	-	-	-	-	-	*21.958*
Subtotal: Hardware Cost	**-**	**-**	***9.305***	**-**	**-**	***25.610***	**-**	**-**	***20.689***	**-**	**-**	***21.958***	**-**	**-**	**-**	**-**	**-**	***21.958***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	0.401	-	-	-	-	-	0.200	-	-	-	-	-	0.200
First Article Test	-	-	2.524	-	-	1.307	-	-	1.272	-	-	0.400	-	-	-	-	-	0.400
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***2.524***	**-**	**-**	***1.708***	**-**	**-**	***1.272***	**-**	**-**	***0.600***	**-**	**-**	**-**	**-**	**-**	***0.600***
Support - Product Improvement Cost																		
Reliability	-	-	-	-	-	8.900	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	**-**	**-**	**-**	***8.900***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	4.297	-	-	2.771	-	-	1.398	-	-	2.646	-	-	-	-	-	2.646
Subtotal: Support - Production Engineering Cost	**-**	**-**	***4.297***	**-**	**-**	***2.771***	**-**	**-**	***1.398***	**-**	**-**	***2.646***	**-**	**-**	**-**	**-**	**-**	***2.646***
Support - Study & Analysis Cost																		
Study & Analysis	-	-	2.528	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Study & Analysis Cost	-	-	***2.528***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	**18.655**	-	-	**38.989**	-	-	**23.359**	-	-	**25.204**	-	-	-	-	-	**25.204**

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).

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND(†)		2021	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2022	3,940	6,500.00	Y		
COMPLETE ROUND(†)		2022	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	PICATINNY ARSENAL, NJ	Mar 2022	Mar 2023	2,557	8,091.07	Y		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2024	2,809	7,817.06	N		

(†) indicates the presence of a P-21

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).

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 655																															
	2	2021	ARMY	3,940	0	3,940						A -	-	-	-	-	-	-	-	-	-	-	-	332	328	328	328	328	328	328	1,640
	2	2022	ARMY	2,557	0	2,557																		A -	-	-	-	-	-	-	2,557
	1	2023	ARMY	2,809	0	2,809																									2,809
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 655																															
	2	2021	ARMY	3,940	2,300	1,640	328	328	328	328	328																				0
	2	2022	ARMY	2,557	0	2,557	-	-	-	-	-	214	213	213	213	213	213	213	213	213	213	213	213								0
	1	2023	ARMY	2,809	0	2,809						A -	-	-	-	-	-	-	-	-	-	-	-	235	234	234	234	234	234	234	1,170
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 655																															
	2	2021	ARMY	3,940	3,940	0																									0
	2	2022	ARMY	2,557	2,557	0																									0
	1	2023	ARMY	2,809	1,639	1,170	234	234	234	234	234																				0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	100	500	2,000	6	9	12	21	6	6	12	18
2	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	287.708	75.021	22.754	58.344	-	58.344
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	287.708	75.021	22.754	58.344	-	58.344
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**287.708**	**75.021**	**22.754**	**58.344**	**-**	**58.344**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	13,105.21	18,563	243.272	18,293.31	3,803	69.569	17,845.24	1,110	19.808	20,001.25	2,721	54.423	-	-	-	20,001.25	2,721	54.423
Subtotal: Recurring Cost	-	-	*243.272*	-	-	*69.569*	-	-	*19.808*	-	-	*54.423*	-	-	-	-	-	*54.423*
Subtotal: Hardware Cost	**-**	**-**	***243.272***	**-**	**-**	***69.569***	**-**	**-**	***19.808***	**-**	**-**	***54.423***	**-**	**-**	**-**	**-**	**-**	***54.423***
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.985	-	-	0.194	-	-	-	-	-	0.230	-	-	-	-	-	0.230
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.985***	**-**	**-**	***0.194***	**-**	**-**	**-**	**-**	**-**	***0.230***	**-**	**-**	**-**	**-**	**-**	***0.230***
Support - Product Improvement Cost																		
Reliability	-	-	3.604	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Production Verification Test	-	-	0.542	-	-	1.468	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***4.146***	**-**	**-**	***1.468***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	39.305	-	-	3.789	-	-	2.946	-	-	3.691	-	-	-	-	-	3.691
Subtotal: Support - Production Engineering Cost	**-**	**-**	***39.305***	**-**	**-**	***3.789***	**-**	**-**	***2.946***	**-**	**-**	***3.691***	**-**	**-**	**-**	**-**	**-**	***3.691***
Gross/Weapon System Cost	**-**	**-**	**287.708**	**-**	**-**	**75.021**	**-**	**-**	**22.754**	**-**	**-**	**58.344**	**-**	**-**	**-**	**-**	**-**	**58.344**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

Remarks:
FY2023 unit cost increase is within normal inflation range.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND(†)		2021	Northrop Grumman / Plymouth, Mn	SS / FFP	PICATINNY ARSENAL, NJ	Nov 2021	Feb 2023	3,803	18,293.31	Y		
COMPLETE ROUND(†)		2022	Northrop Grumman / Plymouth, Mn	SS / FFP	PICATINNY ARSENAL, NJ	Nov 2021	May 2023	1,110	17,845.24	Y		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Mar 2023	May 2024	2,721	20,001.25	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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: 18563																															
	1	2021	ARMY	3,803	0	3,803		A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	327	316	316	316	316	316	316	316	1,264
	1	2022	ARMY	1,110	0	1,110		A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	222	222	222	222	222	0
	2	2023	ARMY	2,721	0	2,721																		A -	-	-	-	-	-	-	2,721
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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: 18563																															
	1	2021	ARMY	3,803	2,539	1,264	316	316	316	316																					0
	1	2022	ARMY	1,110	1,110	0																									0
	2	2023	ARMY	2,721	0	2,721	-	-	-	-	-	-	-	235	226	226	226	226	226	226	226	226	226	226	226						0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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 - Plymouth, Mn	1,000	3,000	5,000	6	6	15	21	6	6	14	20
2	TO BE SELECTED - TBS02	1,000	3,000	5,000	6	6	15	21	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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,955.455	35.963	26.709	7.647	-	7.647	7.954	8.233	19.931	8.512	-	3,070.404
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,955.455	35.963	26.709	7.647	-	7.647	7.954	8.233	19.931	8.512	-	3,070.404
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,955.455**	**35.963**	**26.709**	**7.647**	**-**	**7.647**	**7.954**	**8.233**	**19.931**	**8.512**	**-**	**3,070.404**
(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:

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-5	E21501 / CTG, 105mm ARTY HE, M1 w/o Fuze [C445]	P-5a	A		- / 2,955.455	- / 35.474	- / 26.709	- / 7.647	- / -	- / 7.647
P-5	E22002 / CTG, ARTY, 105MM SMOKE HC M84 W/O FUZE		A		- / -	- / 0.489	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**- / 2,955.455**	**- / 35.963**	**- / 26.709**	**- / 7.647**	**- / -**	**- / 7.647**

*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 2023 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 2023 Total Base dollars in the amount of $7.647 million supports the recapitalization of 21,768 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 2023 request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals. FY 2023 Total Base procurement dollars in the amount of $7.647 million supports the procurement of 21,768 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

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,955.455	35.474	26.709	7.647	-	7.647
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,955.455	35.474	26.709	7.647	-	7.647
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,955.455**	**35.474**	**26.709**	**7.647**	**-**	**7.647**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	130,849	15.838	129.55	104,278	13.509	172.27	21,768	3.750	-	-	-	172.27	21,768	3.750
CONTAINER AMMUNITION FIBER PA55(†)	30.88	20,929	0.646	31.50	13,085	0.412	32.12	10,427	0.335	32.77	2,176	0.071	-	-	-	32.77	2,176	0.071
M67 PROP CHARGE(†)	20.87	213,477	4.455	22.06	133,466	2.944	51.58	106,363	5.486	52.61	22,203	1.168	-	-	-	52.61	22,203	1.168
XM64 PROPELLANT MP(†)	8.78	502,298	4.410	8.96	314,038	2.814	-	-	-	-	-	-	-	-	-	-	-	-
PRIMER PERCUSSION M28B2(†)	19.56	213,477	4.176	19.41	133,466	2.591	20.34	106,363	2.163	20.75	22,203	0.461	-	-	-	20.75	22,203	0.461
XM64 PROPELLANT SP(†)	23.60	136,039	3.211	24.07	85,052	2.047	-	-	-	-	-	-	-	-	-	-	-	-
BOX, PACKING AMMO(†)	36.98	104,646	3.870	46.98	65,425	3.074	38.46	86,550	3.329	68.48	18,067	1.237	-	-	-	68.48	18,067	1.237
Subtotal: Recurring Cost	-	-	*42.132*	-	-	*29.720*	-	-	*24.822*	-	-	*6.687*	-	-	-	-	-	*6.687*
Subtotal: Hardware Cost	**-**	**-**	***42.132***	**-**	**-**	***29.720***	**-**	**-**	***24.822***	**-**	**-**	***6.687***	**-**	**-**	**-**	**-**	**-**	***6.687***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	0.567	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Acceptance Testing Cost	-	-	-	-	-	***0.567***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Non-Recurring Support Cost																		
Facilitization	-	-	-	-	-	1.794	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Non-Recurring Support Cost	-	-	-	-	-	***1.794***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Product Improvement Cost																		
Insensitive Munitions	-	-	-	-	-	0.340	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	-	-	-	-	-	***0.340***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
Production Engineering	-	-	2.543	-	-	2.658	-	-	1.887	-	-	0.959	-	-	-	-	-	0.959
Subtotal: Support - Production Engineering Cost	-	-	***2.543***	-	-	***2.658***	-	-	***1.887***	-	-	***0.959***	-	-	-	-	-	***0.959***
Support - Recapitalization Cost																		
Recapitalization	-	-	2,910.780	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Recapitalization Cost	-	-	***2,910.780***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - System Engineering Cost																		
System Engineering	-	-	-	-	-	0.395	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - System Engineering Cost	-	-	-	-	-	***0.395***	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	**2,955.455**	-	-	**35.474**	-	-	**26.709**	-	-	**7.647**	-	-	-	-	-	**7.647**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2021	BLUE GRASS ARMY DEPOT (BGAD) / RICHMOND, KY	PO	PICATINNY ARSENAL, NJ	Dec 2020	Dec 2022	130,849	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		
LOAD, ASSEMBLE, PACK (LAP)		2023	BLUE GRASS ARMY DEPOT (BGAD) / RICHMOND, KY	PO	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2025	21,768	172.27	Y		
CONTAINER AMMUNITION FIBER PA55		2021	OMEGA CONTAINER INC. / ARCADIA, LA	Option / IDDQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	13,085	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		
CONTAINER AMMUNITION FIBER PA55		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	2,176	32.77	Y		
M67 PROP CHARGE		2021	GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	133,466	22.06	Y		
M67 PROP CHARGE		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2022	Jun 2023	106,363	51.58	Y		
M67 PROP CHARGE		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Jun 2024	22,203	52.61	Y		
XM64 PROPELLANT MP		2021	BAE SYSTEMS ORDNANCE SYSTEMS / RADFORD, VA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	314,038	8.96	Y		
PRIMER PERCUSSION M28B2		2021	DAY & ZIMMERMANN LONE STAR / TEXARKANA, TX	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	133,466	19.41	Y		
PRIMER PERCUSSION M28B2		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2022	Aug 2023	106,363	20.34	Y		
PRIMER PERCUSSION M28B2		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	22,203	20.75	Y		
XM64 PROPELLANT SP		2021	BAE SYSTEMS ORDNANCE SYSTEMS / RADFORD, VA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	85,052	24.07	Y		
BOX, PACKING AMMO		2021	KAIYUH SERVICES, LLC / SPARTA, WI	C / IDDQ	ROCK ISLAND ARSENAL, IL	Mar 2021	Sep 2022	65,425	46.98	Y		
BOX, PACKING AMMO		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2022	Nov 2023	86,550	38.46	Y		
BOX, PACKING AMMO		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2023	Nov 2024	18,067	68.48	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	0.489	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.489	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.489**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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																		
System Engineering	-	-	-	-	-	0.489	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - System Engineering Cost	**-**	**-**	**-**	**-**	**-**	***0.489***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**0.489**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,787.523	283.092	142.582	182.455	-	182.455	191.035	212.956	250.125	267.129	-	3,316.897
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,787.523	283.092	142.582	182.455	-	182.455	191.035	212.956	250.125	267.129	-	3,316.897
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,787.523**	**283.092**	**142.582**	**182.455**	**-**	**182.455**	**191.035**	**212.956**	**250.125**	**267.129**	**-**	**3,316.897**
(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:

E89500 ARTILLERY PROJECTILE, 155MM ALL TYPES
A portion of this budget line is directly aligned to Army Long Range Precision Fire Modernization Priorities.

This budget Line includes Projectiles, Artillery, 155mm All Types but no longer includes the Cannon-Delivered Area Effects Munitions (C-DAEM) Armor munitions. C-DAEM Armor munition procurements formerly captured under E68603 has been realigned and established under new parent Precision Artillery Munitions (F90100) and subordinate line PROJ, ARTY, 155MM C-DAEM ARMOR (F90112)

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

(E26904) PROJ, ARTY, 155MM VL ILLUM M1123
The 155mm M1123 Infra Red (IR) Illumination Projectile is fired from 155mm howitzers and is used with night vision devices to illuminate the battlefield to a maximum range of 22.5 kilometers. The M1123 utilizes projectile bodies generated from an on-going M483 Dual Purpose Improved Conventional Munition (DPICM) demilitarization program and leverages the payload contained in the M1066 IR Illuminating Projectile. The M1123 contains a Canister Loading Assembly, Expulsion Charge, and numerous spacers. The Canister Loading Assembly consists of a Infra-Red (IR) 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 120 seconds minimum. The M1123 provides infrared battlefield illumination that is 2.4 times larger in diameter than the M1124 Visible Light Illumination Round.
This item is Code A, approved for service use.

(E66800) PROJ, ARTY, 155MM HE, M795
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.

(E66501) PROJ, ARTY, 155MM HE RAP XM1113
The XM113 High Explosive (HE), Rocket Assisted Projectile (RAP) is an extended range munition for warfare operations with maximum range of 40 kilometers in 39 caliber weapon systems. The XM1113 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 155mm XM1113 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). It is used for conventional fire support for harassment and interdiction, fragmentation and blast effect. The XM1113 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 B, not approved for service use.

(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.

(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 disbursed 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

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

capability gaps from the loss of DPICM and mitigates risks until the planned program of record (Cannon Delivered Area Effects Munitions) 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.

(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.
This item is Code B and not approved for service use.

(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.

(E27121) - PROJ, ARTY, 155MM HE RAP XM1210 (formerly XM1113 ER)
The XM1210 (formerly XM1113 ER) High Explosive (HE), Rocket Assisted Projectile (RAP) will be optimized for 58 caliber guns and allow commanders to provide accurate cannon artillery fires at ranges of 70km and greater with Extended Range Cannon Artillery The XM1210 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 155mm XM1210 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 is optimized with the Long Range Precision Guidance Kit (LR PGK). It is used for conventional fire support for harassment and interdiction, fragmentation and blast effect. The XM1210 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 B, not approved for service use.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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

Exhibits Schedule					Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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	- / 7.264	- / -	- / -	- / -
P-5	E26900 / PROJ, 155mm ARTY VL ILLUM, M485 / M1124 Series [DA57]	P-5a	A		- / 321.471	- / 13.753	- / 12.088	- / -	- / -	- / -
P-5	E26904 / PROJ, 155mm ARTY IR ILLUM, M1066 / M1123 Series [DA56]		A		- / 77.406	- / -	- / -	- / 0.026	- / -	- / 0.026
P-5	E27001 / PROJ, 155mm ARTY Smoke, M116 Series [D506]		A		- / 7.925	- / -	- / -	- / 5.802	- / -	- / 5.802
P-5	E27121 / PROJ, 155MM ARTY HE RAP, M1210 [DZ19]	P-5a, P-21			- / -	- / -	- / -	- / 17.489	- / -	- / 17.489
P-5	E66501 / PROJ, 155mm ARTY HE RAP, XM1113 [DA72]	P-5a, P-21	B		- / 20.000	- / 26.972	- / 52.098	- / 53.588	- / -	- / 53.588
P-5	E66800 / PROJ, 155mm ARTY HE, M795 [D529]	P-5a, P-21	A		- / 949.090	- / 143.534	- / 30.890	- / 58.685	- / -	- / 58.685
P-5	E67800 / PROJ, 155mm ARTY WP Smoke, M825 / M825A1 [D528]	P-5a	A		- / 244.859	- / 27.088	- / 23.281	- / 18.040	- / -	- / 18.040
P-5	E67802 / PROJ, 155mm ARTY HE-BB, XM1128 [DA70]	P-5a, P-21	B		- / -	- / -	- / 16.961	- / 28.825	- / -	- / 28.825
P-5	E68510 / PROJ, ARTY, 155MM BONUS, MK2 [DA69]	P-5a	A		- / 145.804	- / 63.224	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**- / 1,787.523**	**- / 283.092**	**- / 142.582**	**- / 182.455**	**- / -**	**- / 182.455**

*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 2023 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 2023 Total Base dollars in the amount of $182.455 million supports procurement of 92,517 rounds.

(E67800) PROJ, ARTY, 155MM WP SMOKE M825
This items is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $18.040 million supports the procurement of 5,757 rounds.
TYPE CLASSIFICATION DATE: 1982

(E26900) PROJ, ARTY, 155MM VL ILLUM, M485 / M1124
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: 1970

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

(E26904) PROJ, ARTY, 155MM IR ILLUM, M1066 / M1123
This items is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $0.026 million supports technical data update requirements. E26904 is a New Start in FY2023.
TYPE CLASSIFICATION DATE: 2009

(E66800) PROJ, ARTY, 155MM HE, M795
This item is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $58.685 million supports the procurement of 69,953 rounds.
TYPE CLASSIFICATION DATE: 1982

(E66501) PROJ, ARTY, 155MM HE RAP XM1113
This is a war reserve item used in combat. The FY 2023 request builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Total Base Procurement dollars in the amount of $53.588 million supports the procurement of 6,465 rounds.
TYPE CLASSIFICATION: XM1113 Planned 1QFY23

(E27001) PROJ, ARTY, 155MM HC SMOKE M116 Series
This items is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $5.802 million supports the procurement of 2,138 rounds. E27001 is a New Start in FY2023.
TYPE CLASSIFICATION: 1978

(E27001) PROJ, ARTY, 155MM HE RAP M1210 (formerly XM1113 ER)
This is a war reserve item used in combat. The FY 2023 request is Urgent Material Release (UMR) deliveries supporting the Extended Range Cannon Artillery (ERCA) Increased Range SPH. FY 2023 Base Procurement dollars in the amount of $17.489 million supports the procurement of 1,000 rounds. E27001 is a New Start in FY 2023.
TYPE CLASSIFICATION: Planned FY26

(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.

(E67802) PROJ, ARTY, 155MM, HE W/ BASEBLED XM1128
This is a war reserve item used in combat. The FY 2023 request builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base Procurement dollars in the amount of $28.825 million supports the procurement of 7,204 rounds.
TYPE CLASSIFICATION DATE: Planned FY22

(E21618) PROJ, ARTY, 155mm Extended Range Spotting, M1121
This 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 DATE: 2017

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	20.968	8.521	7.264	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	20.968	8.521	7.264	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**20.968**	**8.521**	**7.264**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	4,983	2.559	523.92	4,123	2.160	-	-	-	-	-	-	-	-	-
MELTABLE FUZE PLUG(†)	10.20	5,100	0.052	5.34	5,083	0.027	8.57	4,205	0.036	-	-	-	-	-	-	-	-	-
CANNISTER METAL PART SET(†)	588.01	5,100	2.999	762.99	5,083	3.878	702.76	4,205	2.955	-	-	-	-	-	-	-	-	-
MODIFIED SUPPLEMENTAL CHARGE, PBXN9(†)	49.99	5,100	0.255	51.68	5,083	0.263	77.71	4,205	0.327	-	-	-	-	-	-	-	-	-
WOODEN PALLET, IMX(†)	135.59	650	0.088	-	-	-	143.89	536	0.077	-	-	-	-	-	-	-	-	-
*WOODEN PALLET, IMX(†)	-	-	-	141.07	648	0.091	-	-	-	-	-	-	-	-	-	-	-	-
MODIFIED PROJECTILE BODY(†)	236.48	5,100	1.206	219.53	5,083	1.116	236.49	4,205	0.994	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*6.960*	-	-	*7.935*	-	-	*6.550*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***6.960***	**-**	**-**	***7.935***	**-**	**-**	***6.550***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	2.214	-	-	0.050	-	-	0.032	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Acceptance Testing Cost	-	-	***2.214***	-	-	***0.050***	-	-	***0.032***	-	-	-	-	-	-	-	-	-
Support - Government Furnished Materials Cost																		
Government Furnished Materials	-	-	-	-	-	-0.091	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Government Furnished Materials Cost	-	-	-	-	-	***-0.091***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
Production Engineering	-	-	11.794	-	-	0.628	-	-	0.682	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	-	-	***11.794***	-	-	***0.628***	-	-	***0.682***	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	**20.968**	-	-	**8.521**	-	-	**7.264**	-	-	-	-	-	-	-	-	-

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2021	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2024	4,983	513.64	Y		
LOAD, ASSEMBLE, PACK (LAP)		2022	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Feb 2022	Feb 2025	4,123	523.92	Y		
MELTABLE FUZE PLUG		2021	RTI TECHNOLOGIES, LLC / COLUMBIA, CT	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	5,083	5.34	Y		
MELTABLE FUZE PLUG		2022	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	May 2022	Nov 2023	4,205	8.57	Y		
CANNISTER METAL PART SET		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	5,083	762.99	Y		
CANNISTER METAL PART SET		2022	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Jan 2022	Jul 2023	4,205	702.76	Y		
MODIFIED SUPPLEMENTAL CHARGE, PBXN9		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	5,083	51.68	Y		
MODIFIED SUPPLEMENTAL CHARGE, PBXN9		2022	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Mar 2022	Sep 2023	4,205	77.71	Y		
WOODEN PALLET, IMX		2022	KNOX CNTY ASSOC REMARKABLE / VINCENNES, IN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	536	143.89	Y		
*WOODEN PALLET, IMX		2021	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	ROCK ISLAND ARSENAL, IL	Sep 2021	Sep 2021	648	141.07	N		
MODIFIED PROJECTILE BODY		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	5,083	219.53	Y		
MODIFIED PROJECTILE BODY		2022	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	4,205	236.49	Y		

Remarks:
Meltable Lift Plug: IDIQ contract awarded (FY19) to multiple contractors . Requirements competed among the following contractors: RTI Technologie s, Columbia, CT & Polymer Technologies Inc., Clifton, NJ.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	321.471	13.753	12.088	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	321.471	13.753	12.088	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**321.471**	**13.753**	**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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	349.35	7,351	2.568	382.03	6,544	2.500	-	-	-	-	-	-	-	-	-
DELAY ELEMENT, 155MM ILLUM(†)	63.98	22,375	1.432	116.28	7,498	0.872	118.61	6,674	0.792	-	-	-	-	-	-	-	-	-
M10 EXPULSION CHARGE ASSEMBLY(†)	20.01	22,375	0.448	32.55	7,498	0.244	33.20	6,674	0.222	-	-	-	-	-	-	-	-	-
PARACHUTE MAIN, 155MM ILLUM(†)	38.98	22,375	0.872	42.00	7,498	0.315	42.15	6,674	0.281	-	-	-	-	-	-	-	-	-
PARACHUTE MAIN SUPPORTS, 155MM ILUM(†)	5.15	89,503	0.461	5.73	29,992	0.172	5.52	26,699	0.147	-	-	-	-	-	-	-	-	-
PARACHUTE DROGUE ASSEMBLY, 155MM ILLUM(†)	17.67	22,375	0.395	16.19	7,498	0.121	20.07	6,674	0.134	-	-	-	-	-	-	-	-	-
VL ILLUM CANNISTER(†)	342.21	22,375	7.657	458.58	7,498	3.438	467.98	6,674	3.123	-	-	-	-	-	-	-	-	-
CANISTER MPTS ASSY, 155MM ILLUM(†)	63.09	22,375	1.412	70.68	7,498	0.530	64.62	6,674	0.431	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	26.48	7,498	0.199	26.45	6,674	0.177	-	-	-	-	-	-	-	-	-
METAL PARTS SETS(†)	292.26	22,094	6.457	445.53	7,498	3.341	357.09	6,674	2.383	-	-	-	-	-	-	-	-	-
DOWNLOAD, CLEAN AND INSPECT(†)	74.88	23,034	1.725	124.56	7,719	0.961	124.08	6,674	0.828	-	-	-	-	-	-	-	-	-
WOODEN PALLET, IMX(†)	111.98	2,851	0.319	-	-	-	143.88	850	0.122	-	-	-	-	-	-	-	-	-
*WOODEN PALLET, IMX(†)	-	-	-	141.07	956	0.135	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*28.751*	-	-	*12.896*	-	-	*11.141*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***28.751***	**-**	**-**	***12.896***	**-**	**-**	***11.141***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.771	-	-	0.035	-	-	0.090	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.771***	**-**	**-**	***0.035***	**-**	**-**	***0.090***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Government Furnished Materials Cost																		
Government Furnished Materials	-	-	-	-	-	-0.135	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Government Furnished Materials Cost	**-**	**-**	**-**	**-**	**-**	***-0.135***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Product Improvement Cost																		
Reliability	-	-	-	-	-	0.389	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	**-**	**-**	**-**	***0.389***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	291.948	-	-	0.567	-	-	0.857	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***291.948***	**-**	**-**	***0.567***	**-**	**-**	***0.857***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**321.471**	**-**	**-**	**13.753**	**-**	**-**	**12.088**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2021	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2023	7,351	349.35	Y		
LOAD, ASSEMBLE, PACK (LAP)		2022	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Mar 2022	Mar 2024	6,544	382.03	Y		
DELAY ELEMENT, 155MM ILLUM		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	7,498	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	Feb 2021	Aug 2022	7,498	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	7,498	42.00	Y		
PARACHUTE MAIN, 155MM ILLUM		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2022	Dec 2023	6,674	42.15	Y		
PARACHUTE MAIN SUPPORTS, 155MM ILUM		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	29,992	5.73	Y		
PARACHUTE MAIN SUPPORTS, 155MM ILUM		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	7,498	16.19	Y		
PARACHUTE DROGUE ASSEMBLY, 155MM ILLUM		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2022	Dec 2023	6,674	20.07	Y		
VL ILLUM CANNISTER		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	7,498	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	Mar 2021	Aug 2022	7,498	70.68	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	7,498	26.48	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	Feb 2021	Aug 2022	7,498	445.53	Y		

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
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	Mar 2021	Sep 2022	7,719	124.56	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		2022	KNOX CNTY ASSOC REMARKABLE / VINCENNES, IN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	850	143.88	Y		
*WOODEN PALLET, IMX		2021	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	ROCK ISLAND ARSENAL, IL	Sep 2021	Sep 2022	956	141.07	N		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]:** E26904 / PROJ, 155mm ARTY IR ILLUM, M1066 / M1123 Series [DA56]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	77.406	-	-	0.026	-	0.026
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	77.406	-	-	0.026	-	0.026
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**77.406**	**-**	**-**	**0.026**	**-**	**0.026**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)	326.82	8,858	2.895	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
METAL PARTS SETS	278.94	8,858	2.471	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANISTER BASE ASSY, 155MM ILLUM	24.44	9,035	0.221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANISTER MPTS ASSY, 155MM ILLUM	59.71	9,035	0.539	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IR ILLUM CANNISTER	338.12	9,035	3.055	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PARACHUTE DROGUE ASSEMBLY, 155MM ILLUM	17.55	9,035	0.159	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PARACHUTE MAIN SUPPORTS, 155MM ILUM	5.15	36,141	0.186	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PARACHUTE MAIN, 155MM ILLUM	38.94	9,035	0.352	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M10 EXPULSION CHARGE ASSEMBLY	17.12	9,035	0.155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DELAY ELEMENT, 155MM ILLUM	80.27	9,035	0.725	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]:** E26904 / PROJ, 155mm ARTY IR ILLUM, M1066 / M1123 Series [DA56]
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)
WOODEN PALLET, IMX	95.58	1,152	0.110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*10.868*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***10.868***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.124***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	66.414	-	-	-	-	-	-	-	-	0.026	-	-	-	-	-	0.026
Subtotal: Support - Production Engineering Cost	**-**	**-**	***66.414***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.026***	**-**	**-**	**-**	**-**	**-**	***0.026***
Gross/Weapon System Cost	**-**	**-**	**77.406**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.026**	**-**	**-**	**-**	**-**	**-**	**0.026**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	7.925	-	-	5.802	-	5.802
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	7.925	-	-	5.802	-	5.802
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**7.925**	**-**	**-**	**5.802**	**-**	**5.802**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	-	-	-	-	1,046.72	2,138	2.238	-	-	-	1,046.72	2,138	2.238
155MM M1 - M2 SMOKE CANNISTER ASSEMBLY	823.00	1,082	0.890	-	-	-	-	-	-	605.66	2,180	1.320	-	-	-	605.66	2,180	1.320
CASE,PROJECTILE	393.95	1,071	0.422	-	-	-	-	-	-	417.99	2,180	0.911	-	-	-	417.99	2,180	0.911
Subtotal: Recurring Cost	-	-	*2.342*	-	-	-	-	-	-	-	-	*4.469*	-	-	-	-	-	*4.469*
Subtotal: Hardware Cost	**-**	**-**	***2.342***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***4.469***	**-**	**-**	**-**	**-**	**-**	***4.469***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.250	-	-	-	-	-	-	-	-	0.150	-	-	-	-	-	0.150
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.250***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.150***	**-**	**-**	**-**	**-**	**-**	***0.150***
Support - Production Engineering Cost																		
Production Engineering	-	-	5.332	-	-	-	-	-	-	-	-	1.182	-	-	-	-	-	1.182
Subtotal: Support - Production Engineering Cost	**-**	**-**	***5.332***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.182***	**-**	**-**	**-**	**-**	**-**	***1.182***
Gross/Weapon System Cost	**-**	**-**	**7.925**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.802**	**-**	**-**	**-**	**-**	**-**	**5.802**

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

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]:** E27121 / PROJ, 155MM ARTY HE RAP, M1210 [DZ19]
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	17.489	-	17.489
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	17.489	-	17.489
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**17.489**	**-**	**17.489**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	-	-	-	-	-	-	-	-	-	15,442.57	1,000	15.443	-	-	-	15,442.57	1,000	15.443
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*15.443*	-	-	-	-	-	*15.443*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***15.443***	**-**	**-**	**-**	**-**	**-**	***15.443***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.525	-	-	-	-	-	0.525
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.525***	**-**	**-**	**-**	**-**	**-**	***0.525***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	-	-	-	1.521	-	-	-	-	-	1.521
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.521***	**-**	**-**	**-**	**-**	**-**	***1.521***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**17.489**	**-**	**-**	**-**	**-**	**-**	**17.489**

Remarks:
The M1210 is the new nomenclature for the XM1113ER.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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]: E27121 / PROJ, 155MM ARTY HE RAP, M1210 [DZ19]

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)(†)		2023	TO BE SELECTED / TBS01	C / CPFF	PICATINNY ARSENAL, NJ	May 2023	May 2024	1,000	15,442.57	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]:** E27121 / PROJ, 155MM ARTY HE RAP, M1210 [DZ19]

Cost Elements (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2023	ARMY	1,000	0	1,000								A -	-	-	-	-	-	-	-	-	-	-	-	500	500				0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]:** E27121 / PROJ, 155MM ARTY HE RAP, M1210 [DZ19]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	500	1,000	5,000	8	8	12	20	8	8	12	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [DA72]

ID Code (A=Service Ready, B=Not Service Ready) : B

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	20.000	26.972	52.098	53.588	-	53.588
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	20.000	26.972	52.098	53.588	-	53.588
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**20.000**	**26.972**	**52.098**	**53.588**	**-**	**53.588**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	7,790.75	6,465	50.367	-	-	-	7,790.75	6,465	50.367
COMPLETE ROUND XM1113 ER OA(†)	-	-	-	-	-	-	14,484.00	540	7.821	-	-	-	-	-	-	-	-	-
COMPLETE ROUND XM1113 ER UMR(†)	-	-	-	-	-	-	14,484.00	506	7.329	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*12.661*	-	-	*19.531*	-	-	*34.270*	-	-	*50.367*	-	-	-	-	-	*50.367*
Non Recurring Cost																		
Test Hardware	-	-	1.016	-	-	3.494	-	-	3.196	-	-	-	-	-	-	-	-	-
Training Aids	-	-	-	-	-	-	-	-	1.000	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*1.016*	-	-	*3.494*	-	-	*4.196*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***13.677***	**-**	**-**	***23.025***	**-**	**-**	***38.466***	**-**	**-**	***50.367***	**-**	**-**	**-**	**-**	**-**	***50.367***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.795	-	-	0.591	-	-	2.250	-	-	0.401	-	-	-	-	-	0.401
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.795***	**-**	**-**	***0.591***	**-**	**-**	***2.250***	**-**	**-**	***0.401***	**-**	**-**	**-**	**-**	**-**	***0.401***
Support - Fielding Cost																		
Fielding	-	-	-	-	-	0.199	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [DA72]
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Fielding Cost	-	-	-	-	-	***0.199***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
Production Engineering	-	-	4.238	-	-	2.913	-	-	5.547	-	-	2.820	-	-	-	-	-	2.820
Subtotal: Support - Production Engineering Cost	-	-	***4.238***	-	-	***2.913***	-	-	***5.547***	-	-	***2.820***	-	-	-	-	-	***2.820***
Support - Support Equipment Cost																		
Test and Measurement Equipment	-	-	-	-	-	-	-	-	2.600	-	-	-	-	-	-	-	-	-
Subtotal: Support - Support Equipment Cost	-	-	-	-	-	-	-	-	***2.600***	-	-	-	-	-	-	-	-	-
Support - System Engineering Cost																		
Weapons Fire Control	-	-	1.290	-	-	0.244	-	-	3.235	-	-	-	-	-	-	-	-	-
Subtotal: Support - System Engineering Cost	-	-	***1.290***	-	-	***0.244***	-	-	***3.235***	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	**20.000**	-	-	**26.972**	-	-	**52.098**	-	-	**53.588**	-	-	-	-	-	**53.588**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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 [DA72]

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
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(†)		2023	TO BE SELECTED / TBS01	C / CPIF	PICATINNY ARSENAL, NJ	Aug 2023	Aug 2025	6,465	7,790.75	N		
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

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 [DA72]

Cost Elements (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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 XM1113																															
Prior Years Deliveries: 692																															
	1	2021	ARMY	1,308	0	1,308									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,308
	2	2022	ARMY	1,400	0	1,400																	A -	-	-	-	-	-	-	-	1,400
	3	2023	ARMY	6,465	0	6,465																									6,465
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 [DA72]

Cost Elements (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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 XM1113																															
Prior Years Deliveries: 692																															
	1	2021	ARMY	1,308	0	1,308	-	1,308																							0
	2	2022	ARMY	1,400	0	1,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	700	700							0
	3	2023	ARMY	6,465	0	6,465											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	6,465
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 [DA72]

Cost Elements (Units in Each)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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 XM1113																															
Prior Years Deliveries: 692																															
	1	2021	ARMY	1,308	1,308	0																									0
	2	2022	ARMY	1,400	1,400	0																									0
	3	2023	ARMY	6,465	0	6,465	-	-	-	-	-	-	-	-	-	-	1,000	1,000	1,000	1,000	1,000	1,465									0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 [DA72]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	1,000	1,500	6	6	16	22	6	6	12	18
2	GDOTS -SEATTLE ** - SEATTLE, WA.*	500	1,000	1,500	0	0	0	0	6	6	12	18
3	TO BE SELECTED - TBS01	500	1,000	1,500	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [D529]

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	949.090	143.534	30.890	58.685	-	58.685
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	949.090	143.534	30.890	58.685	-	58.685
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**949.090**	**143.534**	**30.890**	**58.685**	**-**	**58.685**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	276.65	637,165	176.272	251.59	194,746	48.996	321.57	35,263	11.340	280.49	69,953	19.621	-	-	-	280.49	69,953	19.621
155MM METAL BODY PARTS(†)	380.04	196,860	74.815	410.57	198,641	81.556	411.82	35,968	14.812	482.86	71,352	34.453	-	-	-	482.86	71,352	34.453
SUPPLEMENTARY CHARGE PROJECTILE(†)	12.68	196,859	2.496	11.59	198,641	2.302	12.01	35,968	0.432	12.25	71,352	0.874	-	-	-	12.25	71,352	0.874
WOODEN PALLETS(†)	124.08	33,321	4.134	124.89	24,118	3.012	127.38	4,584	0.584	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*257.717*	-	-	*135.867*	-	-	*27.168*	-	-	*54.948*	-	-	-	-	-	*54.948*
Subtotal: Hardware Cost	**-**	**-**	***257.717***	**-**	**-**	***135.867***	**-**	**-**	***27.168***	**-**	**-**	***54.948***	**-**	**-**	**-**	**-**	**-**	***54.948***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.600	-	-	0.690	-	-	0.277	-	-	0.288	-	-	-	-	-	0.288
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.600***	**-**	**-**	***0.690***	**-**	**-**	***0.277***	**-**	**-**	***0.288***	**-**	**-**	**-**	**-**	**-**	***0.288***
Support - Industrial Facilities Cost																		
Iowa Army Ammunition Plant (AAP)	-	-	10.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Industrial Facilities Cost	**-**	**-**	***10.000***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Non-Recurring Support Cost																		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [D529]
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Non-Recurring Support Cost	**-**	**-**	***0.876***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	679.897	-	-	6.144	-	-	3.445	-	-	3.448	-	-	-	-	-	3.448
Subtotal: Support - Production Engineering Cost	**-**	**-**	***679.897***	**-**	**-**	***6.144***	**-**	**-**	***3.445***	**-**	**-**	***3.448***	**-**	**-**	**-**	**-**	**-**	***3.448***
Support - System Engineering Cost																		
Weapons Fire Control	-	-	-	-	-	0.833	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - System Engineering Cost	**-**	**-**	**-**	**-**	**-**	***0.833***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**949.090**	**-**	**-**	**143.534**	**-**	**-**	**30.890**	**-**	**-**	**58.685**	**-**	**-**	**-**	**-**	**-**	**58.685**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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 [D529]

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)(†)		2021	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	May 2021	Jul 2024	194,746	251.59	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2022	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	May 2022	May 2025	35,263	321.57	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	Option / IDIQ	ROCK ISLAND ARSENAL, IL	May 2023	May 2026	69,953	280.49	Y		
155MM METAL BODY PARTS		2021	GENERAL DYNAMICS ORD & TAC / WILKES BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	198,641	410.57	Y		
155MM METAL BODY PARTS		2022	GENERAL DYNAMICS ORD AND TACT / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	May 2022	Nov 2023	35,968	411.82	Y		
155MM METAL BODY PARTS		2023	GENERAL DYNAMICS ORD AND TACT / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Aug 2023	Feb 2025	71,352	482.86	Y		
SUPPLEMENTARY CHARGE PROJECTILE		2021	SPECTRA TECHNOLOGIES LLC / CAMDEN, AR	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2021	Oct 2022	198,641	11.59	Y		
SUPPLEMENTARY CHARGE PROJECTILE		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2022	Oct 2023	35,968	12.01	Y		
SUPPLEMENTARY CHARGE PROJECTILE		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	71,352	12.25	Y		
WOODEN PALLETS		2021	GENERAL DYNAMICS ORD AND TACT / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2021	Feb 2023	24,118	124.89	Y		
WOODEN PALLETS		2022	GENERAL DYNAMICS ORD AND TACT / SCRANTON, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Aug 2022	Feb 2024	4,584	127.38	Y		

(†) indicates the presence of a P-21

Remarks:
Pallets are procured as part of the Metal Parts Contract Award.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 [D529]

Cost Elements (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 637165																															
	1	2021	ARMY	194.746	.000	194.746								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	194.746
	1	2021	MC (‡)	20.737	.000	20.737								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.737
	1	**2021**	**Total**	**215.483**	**.000**	**215.483**								**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**215.483**
	1	2022	ARMY	35.263	.000	35.263																				A -	-	-	-	-	35.263
	1	2022	MC (‡)	16.933	.000	16.933																				A -	-	-	-	-	16.933
	1	**2022**	**Total**	**52.196**	**.000**	**52.196**																				**-**	**-**	**-**	**-**	**-**	**52.196**
	1	2023	ARMY	69.953	.000	69.953																									69.953
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 [D529]

Cost Elements (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 637165																															
	1	2021	ARMY	194.746	.000	194.746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.000	9.000	9.263	167.483
	1	2021	MC (‡)	20.737	.000	20.737	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.000	7.000	6.737	.000
	1	**2021**	**Total**	**215.483**	**.000**	**215.483**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**16.000**	**16.000**	**16.000**	**167.483**
	1	2022	ARMY	35.263	.000	35.263	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35.263
	1	2022	MC (‡)	16.933	.000	16.933	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.933
	1	**2022**	**Total**	**52.196**	**.000**	**52.196**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**52.196**
	1	2023	ARMY	69.953	.000	69.953								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69.953
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 [D529]

Cost Elements (Units in Thousands)							Fiscal Year 2025													Fiscal Year 2026												BALANCE
										Calendar Year 2025													Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
LOAD, ASSEMBLE, PACK (LAP)																																
Prior Years Deliveries: 637165																																
	1	2021	ARMY	194.746	27.263	167.483	24.000	24.000	24.000	24.000	24.000	24.000	23.483																			.000
	1	2021	MC (‡)	20.737	20.737	.000	-	-	-	-	-	-	-																			.000
	1	**2021**	**Total**	**215.483**	**48.000**	**167.483**	**24.000**	**24.000**	**24.000**	**24.000**	**24.000**	**24.000**	**23.483**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2022	ARMY	35.263	.000	35.263	-	-	-	-	-	-	-	6.288	6.279	6.279	6.279	6.279	3.859													.000
	1	2022	MC (‡)	16.933	.000	16.933	-	-	-	-	-	-	-	3.218	3.213	3.213	3.213	3.213	.863													.000
	1	**2022**	**Total**	**52.196**	**.000**	**52.196**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**9.506**	**9.492**	**9.492**	**9.492**	**9.492**	**4.722**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2023	ARMY	69.953	.000	69.953	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.834	5.829	5.829	5.829	5.829	40.803
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 [D529]

Cost Elements (Units in Thousands)							Fiscal Year 2027												Fiscal Year 2028												BALANCE
										Calendar Year 2027												Calendar Year 2028									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2026	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 637165																															
	1	2021	ARMY	194.746	194.746	.000																									.000
	1	2021	MC (‡)	20.737	20.737	.000																									.000
	1	**2021**	**Total**	**215.483**	**215.483**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	1	2022	ARMY	35.263	35.263	.000																									.000
	1	2022	MC (‡)	16.933	16.933	.000																									.000
	1	**2022**	**Total**	**52.196**	**52.196**	**.000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**.000**
	1	2023	ARMY	69.953	29.150	40.803	5.829	5.829	5.829	5.829	5.829	5.829	5.829																		.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 [D529]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	244.859	27.088	23.281	18.040	-	18.040
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	244.859	27.088	23.281	18.040	-	18.040
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**244.859**	**27.088**	**23.281**	**18.040**	**-**	**18.040**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	-	-	-	551.43	10,892	6.006	588.49	9,074	5.340	661.79	5,757	3.810	-	-	-	661.79	5,757	3.810
S & A MODULE(†)	-	-	-	-	-	-	31.21	9,255	0.289	31.83	5,872	0.187	-	-	-	31.83	5,872	0.187
*S & A MODULE(†)	-	-	-	30.61	11,110	0.340	-	-	-	-	-	-	-	-	-	-	-	-
DELAY ELEMENT(†)	-	-	-	105.06	11,110	1.167	106.87	9,255	0.989	109.30	5,872	0.642	-	-	-	109.30	5,872	0.642
155MM SMOKE CANNISTER(†)	-	-	-	865.30	11,110	9.613	863.19	9,255	7.989	880.45	5,872	5.170	-	-	-	880.45	5,872	5.170
RETAINERS(†)	-	-	-	9.24	11,110	0.103	25.51	9,255	0.236	26.02	5,872	0.153	-	-	-	26.02	5,872	0.153
PROJ BODY 155MM M825(†)	-	-	-	655.13	11,110	7.278	681.60	9,255	6.308	695.23	5,872	4.082	-	-	-	695.23	5,872	4.082
CHARGE ASSEMBLY,EXPULSION(†)	-	-	-	24.41	11,110	0.271	25.91	9,255	0.240	25.39	5,872	0.149	-	-	-	25.39	5,872	0.149
Subtotal: Recurring Cost	-	-	-	-	-	*24.779*	-	-	*21.391*	-	-	*14.193*	-	-	-	-	-	*14.193*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***24.779***	**-**	**-**	***21.391***	**-**	**-**	***14.193***	**-**	**-**	**-**	**-**	**-**	***14.193***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	244.859	-	-	0.210	-	-	0.210	-	-	0.175	-	-	-	-	-	0.175
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***244.859***	**-**	**-**	***0.210***	**-**	**-**	***0.210***	**-**	**-**	***0.175***	**-**	**-**	**-**	**-**	**-**	***0.175***
Support - Government Furnished Materials Cost																		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:	

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)
Government Furnished Materials	-	-	-	-	-	-0.340	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Government Furnished Materials Cost	**-**	**-**	**-**	**-**	**-**	***-0.340***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	2.439	-	-	1.680	-	-	3.672	-	-	-	-	-	3.672
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	***2.439***	**-**	**-**	***1.680***	**-**	**-**	***3.672***	**-**	**-**	**-**	**-**	**-**	***3.672***
Gross/Weapon System Cost	**-**	**-**	**244.859**	**-**	**-**	**27.088**	**-**	**-**	**23.281**	**-**	**-**	**18.040**	**-**	**-**	**-**	**-**	**-**	**18.040**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2021	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2023	10,892	551.43	Y		
LOAD, ASSEMBLE, PACK (LAP)		2022	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Jan 2022	Sep 2024	9,074	588.49	Y		
LOAD, ASSEMBLE, PACK (LAP)		2023	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Jan 2023	Jan 2026	5,757	661.79	Y		
S & A MODULE		2022	ACTION MANUFACTURING COMPANY / BRISTOL, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2022	Sep 2023	9,255	31.21	Y		
S & A MODULE		2023	ACTION MANUFACTURING COMPANY / BRISTOL, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2023	Sep 2024	5,872	31.83	Y		
*S & A MODULE		2021	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	PICATINNY ARSENAL, NJ	Sep 2021	Sep 2021	11,110	30.61	N		
DELAY ELEMENT		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	11,110	105.06	Y		
DELAY ELEMENT		2022	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	9,255	106.87	Y		
DELAY ELEMENT		2023	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2023	Feb 2025	5,872	109.30	Y		
155MM SMOKE CANNISTER		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	11,110	865.30	Y		
155MM SMOKE CANNISTER		2022	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	9,255	863.19	Y		
155MM SMOKE CANNISTER		2023	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2023	Feb 2025	5,872	880.45	Y		
RETAINERS		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Mar 2021	Sep 2022	11,110	9.24	Y		
RETAINERS		2022	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	9,255	25.51	Y		
RETAINERS		2023	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2023	Feb 2025	5,872	26.02	Y		
PROJ BODY 155MM M825		2021	IMT DEFENSE CORP / WESTERVILLE, OH	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2020	Jun 2022	11,110	655.13	Y		
PROJ BODY 155MM M825		2022	IMT DEFENSE CORP / WESTERVILLE, OH	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	9,255	681.60	Y		
PROJ BODY 155MM M825		2023	IMT DEFENSE CORP / WESTERVILLE, OH	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2023	Sep 2024	5,872	695.23	Y		
CHARGE ASSEMBLY,EXPULSION		2021	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2021	Aug 2022	11,110	24.41	Y		

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
CHARGE ASSEMBLY,EXPULSION		2022	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2022	Aug 2023	9,255	25.91	Y		
CHARGE ASSEMBLY,EXPULSION		2023	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2023	Feb 2025	5,872	25.39	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	16.961	28.825	-	28.825
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	16.961	28.825	-	28.825
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**16.961**	**28.825**	**-**	**28.825**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	3,164	5.236	1,623.14	7,204	11.693	-	-	-	1,623.14	7,204	11.693
METAL PART, M1128(†)	-	-	-	-	-	-	1,185.62	3,575	4.239	1,209.82	7,564	9.151	-	-	-	1,209.82	7,564	9.151
EXPLOSIVE FILL IMX-104(†)	-	-	-	-	-	-	24.88	82,264	2.047	24.15	187,304	4.523	-	-	-	24.15	187,304	4.523
WOODEN PALLET, IMX(†)	-	-	-	-	-	-	143.88	411	0.059	146.76	936	0.137	-	-	-	146.76	936	0.137
MELTABLE FUZE PLUG(†)	-	-	-	-	-	-	8.56	3,227	0.028	8.74	7,348	0.064	-	-	-	8.74	7,348	0.064
SUPPLEMENTAL CHARGE, PBXN9(†)	-	-	-	-	-	-	24.34	3,227	0.079	24.83	7,348	0.182	-	-	-	24.83	7,348	0.182
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*11.686*	-	-	*25.752*	-	-	-	-	-	*25.752*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***11.686***	**-**	**-**	***25.752***	**-**	**-**	**-**	**-**	**-**	***25.752***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	0.250	-	-	0.500	-	-	-	-	-	0.500
First Article Test	-	-	-	-	-	-	-	-	4.500	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***4.750***	**-**	**-**	***0.500***	**-**	**-**	**-**	**-**	**-**	***0.500***
Support - Production Engineering Cost																		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	-	-	-	-	-	-	0.525	-	-	2.572	-	-	-	-	-	2.572
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.525***	**-**	**-**	***2.572***	**-**	**-**	**-**	**-**	**-**	***2.572***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**16.961**	**-**	**-**	**28.825**	**-**	**-**	**-**	**-**	**-**	**28.825**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)(†)		2022	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Nov 2022	May 2025	3,164	1,654.78	N		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	May 2023	Nov 2025	7,204	1,623.14	N		
METAL PART, M1128		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Aug 2022	Dec 2023	3,575	1,185.62	Y		
METAL PART, M1128		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Feb 2023	Jun 2024	7,564	1,209.82	Y		
EXPLOSIVE FILL IMX-104		2022	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	May 2022	May 2024	82,264	24.88	Y		
EXPLOSIVE FILL IMX-104		2023	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Feb 2025	187,304	24.15	Y		
WOODEN PALLET, IMX		2022	KNOX CNTY ASSOC REMARKABLE / VINCENNES, IN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	May 2022	May 2023	411	143.88	Y		
WOODEN PALLET, IMX		2023	KNOX CNTY ASSOC REMARKABLE / VINCENNES, IN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Feb 2024	936	146.76	Y		
MELTABLE FUZE PLUG		2022	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	May 2022	Dec 2023	3,227	8.56	Y		
MELTABLE FUZE PLUG		2023	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2023	Aug 2024	7,348	8.74	Y		
SUPPLEMENTAL CHARGE, PBXN9		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2022	Oct 2023	3,227	24.34	Y		
SUPPLEMENTAL CHARGE, PBXN9		2023	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2023	Aug 2024	7,348	24.83	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2022	ARMY	3,164	0	3,164														A -	-	-	-	-	-	-	-	-	-	-	3,164
	1	2023	ARMY	7,204	0	7,204																				A -	-	-	-	-	7,204
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2022	ARMY	3,164	0	3,164	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250	250	250	250	250	1,914
	1	2023	ARMY	7,204	0	7,204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,204
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2026												Fiscal Year 2027												BALANCE
							Calendar Year 2026												Calendar Year 2027												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2025	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2022	ARMY	3,164	1,250	1,914	250	300	300	500	564																				0
	1	2023	ARMY	7,204	0	7,204	-	600	600	600	600	600	600	600	600	600	600	600	604												0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	100	500	1,000	6	6	30	36	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [DA69]

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	145.804	63.224	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	145.804	63.224	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**145.804**	**63.224**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	52,574.34	2,571	135.169	57,789.12	963	55.651	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*135.169*	-	-	*55.651*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***135.169***	**-**	**-**	***55.651***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
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	-	-	6.980	-	-	4.806	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***6.980***	**-**	**-**	***4.806***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**145.804**	**-**	**-**	**63.224**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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 [DA69]

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
COMPLETE ROUND		2021	BAE SYSTEMS BOFORS AB / KARLSKOGA, SWEDEN	Option / FFP	PICATINNY ARSENAL, NJ	Jan 2021	Apr 2022	963	57,789.12	Y		

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	15,576	646	374	-	-	-	-	-	-	-	-	16,596
Gross/Weapon System Cost *($ in Millions)*	1,413.451	76.832	56.755	-	-	-	-	-	-	-	-	1,547.038
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,413.451	76.832	56.755	-	-	-	-	-	-	-	-	1,547.038
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,413.451**	**76.832**	**56.755**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,547.038**
(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)*	90,745.44	118,934.98	151,751.34	-	-	-	-	-	-	-	-	93,217.52

Description:

A portion of this funding line is directly aligned to Army Long Range Precision Fires (LRPF) Modernization Priorities. 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.

(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 demonstrated 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 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.

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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	E80103 / PROJ, 155mm ARTY, Extended Range M982-U Excalibur [DA71]	P-5a	A		15,576 / 1,413.451	646 / 76.832	374 / 56.755	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**15,576 / 1,413.451**	**646 / 76.832**	**374 / 56.755**	**- / -**	**- / -**	**- / -**

*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 2023 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.

FY2023 Procurement funding has been realigned to F90100 Precision Artillery Munitions (Parent)/F90111.

This is a critical munition and war reserve item used in combat. The request builds a war reserve inventory in accordance with Army's procurement goals.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [DA71]

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	15,576	646	374	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,413.451	76.832	56.755	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,413.451	76.832	56.755	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,413.451**	**76.832**	**56.755**	**-**	**-**	**-**
(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)*	90,745.44	118,934.98	151,751.34	-	-	-

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	84,674.31	15,676	1,327.354	98,742.29	646	63.788	106,465.53	374	39.818	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*1,327.354*	-	-	*63.788*	-	-	*39.818*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***1,327.354***	**-**	**-**	***63.788***	**-**	**-**	***39.818***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	7.431	-	-	0.449	-	-	1.041	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***7.431***	**-**	**-**	***0.449***	**-**	**-**	***1.041***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Congressional Adjustments Cost																		
Congressional Rescission	-	-	7.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Congressional Adjustments Cost	**-**	**-**	***7.500***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	21.203	-	-	2.854	-	-	6.804	-	-	-	-	-	-	-	-	-
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	***21.203***	**-**	**-**	***2.854***	**-**	**-**	***6.804***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [DA71]
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	44.163	-	-	9.057	-	-	8.438	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***44.163***	**-**	**-**	***9.057***	**-**	**-**	***8.438***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	5.799	-	-	0.685	-	-	0.653	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***5.799***	**-**	**-**	***0.685***	**-**	**-**	***0.653***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**90,745.44**	**15,576**	**1,413.451**	**118,934.98**	**646**	**76.832**	**151,751.34**	**374**	**56.755**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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 [DA71]

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
COMPLETE ROUND		2021	RAYTHEON MISSILE SYSTEMS CO / TUCSON, AZ	Option / FFP	PICATINNY ARSENAL, NJ	Feb 2021	Dec 2022	646	98,742.29	Y		
COMPLETE ROUND		2022	RAYTHEON MISSILE SYSTEMS CO / TUCSON, AZ	Option / FFP	PICATINNY ARSENAL, NJ	Jan 2022	Dec 2023	374	106,465.53	Y		

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS

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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	1,418	-	1,418	615	1,805	2,377	2,332	-	8,547
Gross/Weapon System Cost *($ in Millions)*	-	-	-	166.334	-	166.334	111.284	229.169	261.850	261.850	-	1,030.487
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	166.334	-	166.334	111.284	229.169	261.850	261.850	-	1,030.487
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**166.334**	**-**	**166.334**	**111.284**	**229.169**	**261.850**	**261.850**	**-**	**1,030.487**
(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 Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	117.302	-	117.302	180.950	126.963	110.160	112.286	-	120.567

Description:

The Precision Artillery Munitions funding lines support programs of interest aligned to the Army Long Range Precision Fires (LRPF) Modernization Priorities.

This budget line item includes the Excalibur and Cannon-Delivered Area Effects Munitions (C-DAEM) Armor munitions. FY 2023 Procurement funding has been realigned from P-1 Line Number 16, Proj 155mm Extended Range M982 (E80100), and P-1 Line Number 17, Proj 155mm All Types (E89500), and C-DAEM Armor (E68603) which established a parent PRECISION ARTILLERY MUNITIONS (F90100) and two subordinate baby lines PROJ, ARTY, 155MM EXT RANGE M982A1 EXCAL (F90111) and PROJ, ARTY, 155MM C-DAEM ARMOR (F90112) that have commonality of components providing the opportunity for a shared Industrial Base.

(F90111) Excalibur is a Precision Guided Extended Range 155mm Artillery projectile providing Brigade Combat Teams an organic precision fires capability. 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. Excalibur provides improved fire support capability due to its increased range of 40.5 kilometers from the current 39 caliber systems (M777A2 Lightweight 155mm Howitzer (LW155), the M109A6 Paladin Howitzer, the M109A7 Paladin PIM Howitzer and the Swedish Archer Howitzer) and demonstrated 70 kilometers from the 58-caliber XM1299 Extended Range Cannon Artillery (ERCA) Self Propelled Howitzer (SPH). 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 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.

This item is Code A, approved for service use.

(F90112) Cannon-Delivered Area Effects Munitions (C-DAEM) Armor is a 155mm cannon munition designed to address the cannon artillery area targets, from light to heavy armor, whether precisely or imprecisely located, moving or moved. C-DAEM Armor will provide U.S. ground forces with a capability to effectively engage, destroy, neutralize, and/or suppress threat formations. The C-DAEM Armor projectile provides a hit-to-kill capability, enabling it to effectively engage area and point armored/mechanized targets at extended ranges. The projectile also includes a seeker, shape charge warhead, and M-code GPS to provide an anti-armor capability out to 70km from the ERCA platform. This program has a long-term strategy for integrating increased capability, such as a datalink for round-to-round communications and inflight targeting updates and increased range.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	
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 item is Code B, not approved for service use.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS

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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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	F90111 / PROJ, ARTY, 155MM EXT RANGE M982A1 EXCAL	P-5a, P-21			- / -	- / -	- / -	1,168 / 119.477	- / -	1,168 / 119.477
P-5	F90112 / PROJ, ARTY, 155MM C-DAEM ARMOR	P-5a, P-21			- / -	- / -	- / -	250 / 46.857	- / -	250 / 46.857
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / -**	**- / -**	**1,418 / 166.334**	**- / -**	**1,418 / 166.334**

*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 2023 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 2023 Total Base dollars in the amount of $166.334 million supports the procurement of 1,168 Excalibur Ib projectiles and 250 C-DAEM Armor Urgent Materiel Release (UMR) projectiles.

(F90111) Projectile 155mm Extended Range M982
This is a critical munition and war reserve item used in combat. The FY 2023 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $59.739 million supports the procurement of 310 each Ib projectiles. FY2023 Base dollars in the amount of $59.738 million supports the procurement of 858 each Ib projectiles, critical Army munitions, combat expenses for Operation Inherent Resolve.
F90111 is not a new start. FY 2023 Procurement funding has been realigned from E80100 Proj 155mm Extended Range M982 (Parent)/E80103.
TYPE CLASSIFICATION DATE: May 2014

(F90112) PROJ, ARTY, 155mm C-DAEM ARMOR
This is a war reserve item used in combat. The FY 2023 request builds Urgent Materiel Release (UMR) quantities of the C-DAEM Armor solution(s) selected by the Army Requirements Oversight Council (AROC) in FY 2022. FY 2023 Base Procurement dollars in the amount of $46.857 million supports the procurement of 250 UMR projectiles.
F90112 is a New Start procurement program in FY 2023.
TYPE CLASSIFICATION DATE: Planned FY26

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	**Item Number / Title [DODIC]:** F90111 / PROJ, ARTY, 155MM EXT RANGE M982A1 EXCAL
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	1,168	-	1,168
Gross/Weapon System Cost *($ in Millions)*	-	-	-	119.477	-	119.477
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	119.477	-	119.477
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**119.477**	**-**	**119.477**
(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 Thousands)*	-	-	-	102.292	-	102.292

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	-	-	-	-	-	-	-	-	-	91.658	1,168	107.057	-	-	-	91.658	1,168	107.057
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*107.057*	-	-	-	-	-	*107.057*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***107.057***	**-**	**-**	**-**	**-**	**-**	***107.057***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.660	-	-	-	-	-	0.660
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.660***	**-**	**-**	**-**	**-**	**-**	***0.660***
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	-	-	-	-	-	-	-	-	-	2.860	-	-	-	-	-	2.860
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***2.860***	**-**	**-**	**-**	**-**	**-**	***2.860***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	-	-	-	8.234	-	-	-	-	-	8.234
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***8.234***	**-**	**-**	**-**	**-**	**-**	***8.234***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	0.666	-	-	-	-	-	0.666

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	**Item Number / Title [DODIC]:** F90111 / PROJ, ARTY, 155MM EXT RANGE M982A1 EXCAL
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)
Subtotal: Support - Quality Assurance Cost	-	-	-	-	-	-	-	-	-	-	-	***0.666***	-	-	-	-	-	***0.666***
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	**102.292**	**1,168**	**119.477**	-	-	-	**102.292**	**1,168**	**119.477**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	**Item Number / Title [DODIC]:** F90111 / PROJ, ARTY, 155MM EXT RANGE M982A1 EXCAL

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 *($ K)*	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND(†)		2023	RAYTHEON MISSILE SYSTEMS CO / TUCSON, AZ	Option / FFP	PICATINNY ARSENAL, NJ	Jan 2023	Dec 2024	1,168	91.658	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	**Item Number / Title [DODIC]:** F90111 / PROJ, ARTY, 155MM EXT RANGE M982A1 EXCAL

Cost Elements (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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																															
	1	2023	ARMY	1,168	0	1,168				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,168
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	**Item Number / Title [DODIC]:** F90111 / PROJ, ARTY, 155MM EXT RANGE M982A1 EXCAL

Cost Elements (Units in Each)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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																															
	1	2023	ARMY	1,168	0	1,168	-	-	12	100	100	100	100	100	106	110	110	110	110	110											0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	**Item Number / Title [DODIC]:** F90111 / PROJ, ARTY, 155MM EXT RANGE M982A1 EXCAL

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	12	18	12	3	23	26

"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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	**Item Number / Title [DODIC]:** F90112 / PROJ, ARTY, 155MM C-DAEM ARMOR
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	250	-	250
Gross/Weapon System Cost *($ in Millions)*	-	-	-	46.857	-	46.857
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	46.857	-	46.857
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**46.857**	**-**	**46.857**
(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 Thousands)*	-	-	-	187.428	-	187.428

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	-	-	-	-	-	-	-	-	-	138.328	250	34.582	-	-	-	138.328	250	34.582
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*34.582*	-	-	-	-	-	*34.582*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***34.582***	**-**	**-**	**-**	**-**	**-**	***34.582***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	1.500	-	-	-	-	-	1.500
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.500***	**-**	**-**	**-**	**-**	**-**	***1.500***
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	-	-	-	-	-	-	-	-	-	5.195	-	-	-	-	-	5.195
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***5.195***	**-**	**-**	**-**	**-**	**-**	***5.195***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	-	-	-	5.580	-	-	-	-	-	5.580
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***5.580***	**-**	**-**	**-**	**-**	**-**	***5.580***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**187.428**	**250**	**46.857**	**-**	**-**	**-**	**187.428**	**250**	**46.857**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	**Item Number / Title [DODIC]:** F90112 / PROJ, ARTY, 155MM C-DAEM ARMOR
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Remarks:
$5.195M will support Engineering Change Proposals identified for Urgent Materiel Release (UMR) projectile design, margins, materials, fabrication processes, testing and yield deficiencies as the design and manufacturing processes stabilize during the first few years of production.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	P-1 Line Item Number / Title: 6635F90100 / PRECISION ARTILLERY MUNITIONS	Item Number / Title [DODIC]: F90112 / PROJ, ARTY, 155MM C-DAEM ARMOR

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 ($ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	TBD	PICATINNY ARSENAL, NJ	Sep 2023	Sep 2025	250	138.328	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	**Item Number / Title [DODIC]:** F90112 / PROJ, ARTY, 155MM C-DAEM ARMOR

Cost Elements (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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																															
	1	2023	ARMY	250	0	250												A -	-	-	-	-	-	-	-	-	-	-	-	-	250
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	**Item Number / Title [DODIC]:** F90112 / PROJ, ARTY, 155MM C-DAEM ARMOR

Cost Elements (Units in Each)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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																															
	1	2023	ARMY	250	0	250	-	-	-	-	-	-	-	-	-	-	-	24	24	24	24	24	24	24	24	24	24	10			0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37	**P-1 Line Item Number / Title:** 6635F90100 / PRECISION ARTILLERY MUNITIONS	**Item Number / Title [DODIC]:** F90112 / PROJ, ARTY, 155MM C-DAEM ARMOR

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	200	250	500	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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,254.050	247.011	262.451	143.763	-	143.763	166.461	227.763	262.828	294.589	-	3,858.916
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,254.050	247.011	262.451	143.763	-	143.763	166.461	227.763	262.828	294.589	-	3,858.916
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,254.050**	**247.011**	**262.451**	**143.763**	**-**	**143.763**	**166.461**	**227.763**	**262.828**	**294.589**	**-**	**3,858.916**
(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:

(E27501) Artillery Propellants, Fuzes and Primers, All Types.
A portion of this funding line is directly aligned to Army Long Range Precision Fires (LRPF) Modernization Priorities

(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 proximity fuzing functions. PGK is compatible with the M777A2 Lightweight 155mm Howitzer (LW155), the M109A6 Paladin Howitzer, and the M109A7 Paladin PIM Howitzer. The PGK M1156A1 will be compatible with XM1113 and XM1128 projectiles as well as adding M-code capability. PGK supports the National Defense Strategy and future 155mm projectiles.
This item is Code A, approved for service use.

(ER8021) ARTY, 155MM PROP CHG, MACS M232 SERIES

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

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.

(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.

(E99350) ARTY, 155mm SUPERCHARGE
The Supercharge is a 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 a bag variant that is fired with the tactical variant stub charge.
This item is Code B, not approved for service use.

(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 1T, 2T, 3T, 4T, 2Z, 3Z & 4Z from M908 Extended Range Cannon with slide-block breech. 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 at charges 9ZA & 9ZB.
This item is Code B, not approved for service use.

(E99251) ARTY, FUZE, 155mm Long Range-Precision Guidance Kit
The Long Range-Precision Guidance Kit 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 Long Range Precision Guidance Kit will pursue Urgent Materiel Release (UMR) to achieve precision accuracy at extended ranges and is compatible with the new XM120 (XM1113ER) projectile, MACS, Supercharge propellant, and 58-caliber XM1299 Extended Range Cannon Artillery (ERCA) Self-Propelled Howitzer (SPH). The Long Range PGK will provide the Full Materiel Release (FMR) solution and will be compatible with new XM1113, XM1210 (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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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

Exhibits Schedule					Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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		- / 322.444	- / -	- / 11.258	- / 11.746	- / -	- / 11.746
P-5	E62208 / FUZE,155mm ARTY Point Detonating (PD), M739 Series [N340]	P-5a, P-21	A		- / 324.000	- / 19.170	- / 13.493	- / 14.337	- / -	- / 14.337
P-5	E99250 / FUZE,155mm ARTY Precision Guidance Kit (PGK) [NA37]	P-5a, P-21	A		- / 877.855	- / 160.710	- / 163.320	- / 31.317	- / -	- / 31.317
P-5	E99251 / LONG-RANGE PRECISION GUIDANCE KIT (LR-PGK) [NZ04]	P-5a, P-21			- / -	- / -	- / 24.677	- / 37.891	- / -	- / 37.891
P-5	E99350 / 155mm Artillery Supercharge XM654 [DZ69]	P-5a, P-21			- / -	- / -	- / 0.010	- / 7.802	- / -	- / 7.802
P-5	E99360 / 155mm Artillery Stubcharge XM659	P-5a			- / -	- / -	- / 0.010	- / 9.395	- / -	- / 9.395
P-5	E99909 / Multi-Option Fuze, Artillery M782 [NA09]	P-5a	A		- / 10.000	- / -	- / 13.653	- / -	- / -	- / -
P-5	ER8021 / PROP CHG, 155mm ARTY MACS, M232 Series [DA67]	P-5a, P-21	A		- / 719.751	- / 67.131	- / 36.030	- / 31.275	- / -	- / 31.275
P-40	**Total Gross/Weapon System Cost**				**- / 2,254.050**	**- / 247.011**	**- / 262.451**	**- / 143.763**	**- / -**	**- / 143.763**

*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 2023 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 2023 Total Base dollars in the amount of $143.763 million supports the production of 160,479 fuzes, 168,331 propelling charges and 9,001 ERCA propulsion stub charges & supercharges.

(E99909) ARTY, FUZE MOFA M782 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: 1999

(E27502) ARTY, 155MM PROP CHG, MACS M231 Series
This is a training standard item used in training and combat. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Total Base dollars in the amount of $11.746 million supports the procurement of 41,325 charges.
TYPE CLASSIFICATION DATE: 1999

(E99250) ARTY, FUZE, PRECISION GUIDANCE KIT (PGK)

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

This is a critical munition and war reserve item used in both training and combat. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Total Base dollars in the amount of $31.317 million supports the production of 3,591 PGK fuzes.
TYPE CLASSIFICATION DATE: October 2015

(ER8021) ARTY, 155MM PROP CHG, MACS M232 SERIES
This is a training standard item used in training and combat. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Total Base dollars in the amount of $31.275 million supports the production of 127,006 charges.
TYPE CLASSIFICATION DATE: 2001

(E62208) ARTY, FUZE PD M739 Series
This is a training standard item used in training and combat. FY 2023 request supports annual training and a builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Total Base dollars in the amount of $14.337 million supports production of 156,348 fuzes.
TYPE CLASSIFICATION: 1982

(E99350) ARTY, 155MM SUPERCHARGE
This is a war reserve item used in combat. FY 2023 request supports annual training and a builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Total Base dollars in the amount of $7.802 million supports the Operational Assessment and Urgent Material Release production of 2,815 bag supercharges for the Extended Range Cannon Artillery (ERCA) Increased Range SPH.
TYPE CLASSIFICATION DATE: 1QFY26

(E99360) ARTY, 155MM STUB CHARGE
This is a training standard item used in training and combat. FY 2023 request supports annual training and a builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Total Base dollars in the amount of $9.395 million supports the Operational Assessment production and the Urgent Material Release production of 3,468 training variant and 2,718 tactical variant stub charges for the Extended Range Cannon Artillery (ERCA) Increased Range SPH.
TYPE CLASSIFICATION DATE: 1QFY26

(E99251) ARTY, FUZE, 155MM LONG RANGE PRECISION GUIDANCE KIT
This is a critical munition and war reserve item used in both training and combat. FY 2023 Total Base dollars in the amount of $37.891 million supports the production of 540 fuzes to support the ERCA Increased Range SPH Operational Assessment to achieve lethality at 70km with precision accuracy.
TYPE CLASSIFICATION DATE: 2QFY26

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	322.444	-	11.258	11.746	-	11.746
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	322.444	-	11.258	11.746	-	11.746
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**322.444**	**-**	**11.258**	**11.746**	**-**	**11.746**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	9,123.21	34,920	318.582	-	-	-	163.59	40,267	6.587	166.87	41,325	6.896	-	-	-	166.87	41,325	6.896
COMBUSTIBLE CASES - M231(†)	52.04	36,000	1.873	-	-	-	58.25	41,475	2.416	60.96	42,564	2.595	-	-	-	60.96	42,564	2.595
CONTAINER, M231(†)	72.26	9,000	0.650	-	-	-	77.91	10,469	0.816	79.47	10,744	0.854	-	-	-	79.47	10,744	0.854
IGNITION PROPELLANT, MACS(†)	10.83	2,300	0.025	-	-	-	11.27	2,577	0.029	11.49	2,644	0.030	-	-	-	11.49	2,644	0.030
Subtotal: Recurring Cost	-	-	*321.131*	-	-	-	-	-	*9.848*	-	-	*10.375*	-	-	-	-	-	*10.375*
Subtotal: Hardware Cost	**-**	**-**	***321.131***	**-**	**-**	**-**	**-**	**-**	***9.848***	**-**	**-**	***10.375***	**-**	**-**	**-**	**-**	**-**	***10.375***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.450	-	-	-	-	-	0.300	-	-	0.300	-	-	-	-	-	0.300
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.450***	**-**	**-**	**-**	**-**	**-**	***0.300***	**-**	**-**	***0.300***	**-**	**-**	**-**	**-**	**-**	***0.300***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.863	-	-	-	-	-	1.110	-	-	1.071	-	-	-	-	-	1.071
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.863***	**-**	**-**	**-**	**-**	**-**	***1.110***	**-**	**-**	***1.071***	**-**	**-**	**-**	**-**	**-**	***1.071***
Gross/Weapon System Cost	**-**	**-**	**322.444**	**-**	**-**	**-**	**-**	**-**	**11.258**	**-**	**-**	**11.746**	**-**	**-**	**-**	**-**	**-**	**11.746**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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)(†)		2022	TO BE SELECTED / TBS01	Option / IDIQ	PICATINNY ARSENAL, NJ	Apr 2022	Mar 2024	40,267	163.59	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	TO BE SELECTED / TBS01	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2025	41,325	166.87	Y		
COMBUSTIBLE CASES - M231		2022	ARMTEC DEFENSE PRODUCTS CO / COACHELLA, CA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2022	Sep 2023	41,475	58.25	Y		
COMBUSTIBLE CASES - M231		2023	ARMTEC DEFENSE PRODUCTS CO / COACHELLA, CA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2023	Sep 2024	42,564	60.96	Y		
CONTAINER, M231		2022	TO BE SELECTED / TBS01	Option / IDIQ	PICATINNY ARSENAL, NJ	Apr 2022	Apr 2023	10,469	77.91	Y		
CONTAINER, M231		2023	TO BE SELECTED / TBS01	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2024	10,744	79.47	Y		
IGNITION PROPELLANT, MACS		2022	ST. MARKS POWDER INC. / CRAWFORDVILLE, FL	Option / IDIQ	PICATINNY ARSENAL, NJ	Apr 2022	Apr 2023	2,577	11.27	Y		
IGNITION PROPELLANT, MACS		2023	ST. MARKS POWDER INC. / CRAWFORDVILLE, FL	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2024	2,644	11.49	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 34920																															
	1	2022	ARMY	40.267	.000	40.267							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40.267
	1	2023	ARMY	41.325	.000	41.325																		A -	-	-	-	-	-	-	41.325
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 34920																															
	1	2022	ARMY	40.267	.000	40.267	-	-	-	-	-	40.267																			.000
	1	2023	ARMY	41.325	.000	41.325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41.325							.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	324.000	19.170	13.493	14.337	-	14.337
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	324.000	19.170	13.493	14.337	-	14.337
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**324.000**	**19.170**	**13.493**	**14.337**	**-**	**14.337**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	1,088.56	294,284	320.346	72.11	220,368	15.891	73.53	143,221	10.531	78.63	156,348	12.294	-	-	-	78.63	156,348	12.294
Subtotal: Recurring Cost	-	-	*320.346*	-	-	*15.891*	-	-	*10.531*	-	-	*12.294*	-	-	-	-	-	*12.294*
Subtotal: Hardware Cost	**-**	**-**	***320.346***	**-**	**-**	***15.891***	**-**	**-**	***10.531***	**-**	**-**	***12.294***	**-**	**-**	**-**	**-**	**-**	***12.294***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	1.029	-	-	1.156	-	-	0.586	-	-	0.660	-	-	-	-	-	0.660
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***1.029***	**-**	**-**	***1.156***	**-**	**-**	***0.586***	**-**	**-**	***0.660***	**-**	**-**	**-**	**-**	**-**	***0.660***
Support - Production Engineering Cost																		
Production Engineering	-	-	2.626	-	-	2.123	-	-	2.376	-	-	1.383	-	-	-	-	-	1.383
Subtotal: Support - Production Engineering Cost	**-**	**-**	***2.626***	**-**	**-**	***2.123***	**-**	**-**	***2.376***	**-**	**-**	***1.383***	**-**	**-**	**-**	**-**	**-**	***1.383***
Gross/Weapon System Cost	**-**	**-**	**324.000**	**-**	**-**	**19.170**	**-**	**-**	**13.493**	**-**	**-**	**14.337**	**-**	**-**	**-**	**-**	**-**	**14.337**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND(†)		2021	ACTION MANUFACTURING COMPANY / BRISTOL, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Jun 2021	Jun 2024	220,368	72.11	Y		
COMPLETE ROUND(†)		2022	ACTION MANUFACTURING COMPANY / BRISTOL, PA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2022	Mar 2025	143,221	73.53	Y		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2026	156,348	78.63	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 294284																															
	2	2021	AFSO (‡)	12.980	.000	12.980									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.980
	2	2021	ARMY	220.368	.000	220.368									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	220.368
	2	**2021**	**Total**	**233.348**	**.000**	**233.348**									**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**233.348**
	2	2022	ARMY	143.221	.000	143.221																		A -	-	-	-	-	-	-	143.221
	2	2022	MC (‡)	147.712	.000	147.712																		A -	-	-	-	-	-	-	147.712
	2	**2022**	**Total**	**290.933**	**.000**	**290.933**																		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**290.933**
	1	2023	AFSO (‡)	10.429	.000	10.429																									10.429
	1	2023	ARMY	156.348	.000	156.348																									156.348
	1	2023	MC (‡)	10.429	.000	10.429																									10.429
	1	**2023**	**Total**	**177.206**	**.000**	**177.206**																									**177.206**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 294284																															
	2	2021	AFSO (‡)	12.980	.000	12.980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.980	-	-	-	.000
	2	2021	ARMY	220.368	.000	220.368	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.485	24.485	24.485	24.485	122.428
	2	**2021**	**Total**	**233.348**	**.000**	**233.348**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**37.465**	**24.485**	**24.485**	**24.485**	**122.428**
	2	2022	ARMY	143.221	.000	143.221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	143.221
	2	2022	MC (‡)	147.712	.000	147.712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	147.712
	2	**2022**	**Total**	**290.933**	**.000**	**290.933**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**290.933**
	1	2023	AFSO (‡)	10.429	.000	10.429						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.429
	1	2023	ARMY	156.348	.000	156.348						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	156.348
	1	2023	MC (‡)	10.429	.000	10.429						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.429
	1	**2023**	**Total**	**177.206**	**.000**	**177.206**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**177.206**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 294284																															
	2	2021	AFSO (‡)	12.980	12.980	.000	-	-	-	-	-																				.000
	2	2021	ARMY	220.368	97.940	122.428	24.485	24.485	24.485	24.485	24.488																				.000
	2	**2021**	**Total**	**233.348**	**110.920**	**122.428**	**24.485**	**24.485**	**24.485**	**24.485**	**24.488**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	2	2022	ARMY	143.221	.000	143.221	-	-	-	-	-	13.145	13.145	13.145	13.145	13.145	13.145	12.271	12.145	12.145	12.145	12.145	3.500								.000
	2	2022	MC (‡)	147.712	.000	147.712	-	-	-	-	-	10.115	12.514	12.514	12.515	12.515	12.515	12.515	12.515	12.515	12.515	12.516	12.448								.000
	2	**2022**	**Total**	**290.933**	**.000**	**290.933**	**-**	**-**	**-**	**-**	**-**	**23.260**	**25.659**	**25.659**	**25.660**	**25.660**	**25.660**	**24.786**	**24.660**	**24.660**	**24.660**	**24.661**	**15.948**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2023	AFSO (‡)	10.429	.000	10.429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.429	-	-	-	-	-	-	.000
	1	2023	ARMY	156.348	.000	156.348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.029	13.029	13.029	13.029	13.029	13.029	13.029	65.145
	1	2023	MC (‡)	10.429	.000	10.429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.429	-	-	-	-	-	-	.000
	1	**2023**	**Total**	**177.206**	**.000**	**177.206**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**33.887**	**13.029**	**13.029**	**13.029**	**13.029**	**13.029**	**13.029**	**65.145**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2027												Fiscal Year 2028												BALANCE
										Calendar Year 2027												Calendar Year 2028									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2026	BAL DUE AS OF 1 OCT	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: 294284																															
	2	2021	AFSO (‡)	12.980	12.980	.000																									.000
	2	2021	ARMY	220.368	220.368	.000																									.000
	2	**2021**	**Total**	**233.348**	**233.348**	**.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	2	2022	ARMY	143.221	143.221	.000																									.000
	2	2022	MC (‡)	147.712	147.712	.000																									.000
	2	**2022**	**Total**	**290.933**	**290.933**	**.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2023	AFSO (‡)	10.429	10.429	.000	-	-	-	-	-																				.000
	1	2023	ARMY	156.348	91.203	65.145	13.029	13.029	13.029	13.029	13.029																				.000
	1	2023	MC (‡)	10.429	10.429	.000	-	-	-	-	-																				.000
	1	**2023**	**Total**	**177.206**	**112.061**	**65.145**	**13.029**	**13.029**	**13.029**	**13.029**	**13.029**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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

(‡) 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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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) [NA37]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	877.855	160.710	163.320	31.317	-	31.317
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	877.855	160.710	163.320	31.317	-	31.317
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**877.855**	**160.710**	**163.320**	**31.317**	**-**	**31.317**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	8,217.83	88,826	729.957	5,556.64	25,154	139.772	5,965.76	19,419	115.849	6,923.35	3,591	24.862	-	-	-	6,923.35	3,591	24.862
Subtotal: Recurring Cost	-	-	*729.957*	-	-	*139.772*	-	-	*115.849*	-	-	*24.862*	-	-	-	-	-	*24.862*
Non Recurring Cost																		
GPS Receiver Obsolescence (M-Code Compliance)	-	-	13.378	-	-	3.235	-	-	-	-	-	-	-	-	-	-	-	-
Melody II ASIC Chips	-	-	46.446	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M762A1 Safe & Arm PBXW14	-	-	7.275	-	-	3.235	-	-	-	-	-	-	-	-	-	-	-	-
Melody II Qual	-	-	15.969	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*83.068*	-	-	*6.470*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***813.025***	**-**	**-**	***146.242***	**-**	**-**	***115.849***	**-**	**-**	***24.862***	**-**	**-**	**-**	**-**	**-**	***24.862***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	15.731	-	-	2.518	-	-	2.041	-	-	1.460	-	-	-	-	-	1.460
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***15.731***	**-**	**-**	***2.518***	**-**	**-**	***2.041***	**-**	**-**	***1.460***	**-**	**-**	**-**	**-**	**-**	***1.460***
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	13.283	-	-	-	-	-	38.626	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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) [NA37]
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Engineering Change Proposals Cost	-	-	***13.283***	-	-	-	-	-	***38.626***	-	-	-	-	-	-	-	-	-
Support - Product Improvement Cost																		
Production Qualification Test	-	-	4.038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reliability	-	-	4.924	-	-	4.644	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	-	-	***8.962***	-	-	***4.644***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
Production Engineering	-	-	26.855	-	-	7.307	-	-	6.804	-	-	4.995	-	-	-	-	-	4.995
Subtotal: Support - Production Engineering Cost	-	-	***26.855***	-	-	***7.307***	-	-	***6.804***	-	-	***4.995***	-	-	-	-	-	***4.995***
Gross/Weapon System Cost	-	-	**877.855**	-	-	**160.710**	-	-	**163.320**	-	-	**31.317**	-	-	-	-	-	**31.317**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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) [NA37]

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
COMPLETE ROUND(†)		2021	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	PICATINNY ARSENAL, NJ	May 2021	May 2023	25,154	5,556.64	Y		
COMPLETE ROUND(†)		2022	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	PICATINNY ARSENAL, NJ	Mar 2022	Mar 2024	19,419	5,965.76	Y		
COMPLETE ROUND(†)		2023	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	Option / FFP	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2025	3,591	6,923.35	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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) [NA37]

Cost Elements (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 88826																															
	1	2021	ARMY	25.154	.000	25.154								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.154
	1	2021	MC (‡)	6.354	.000	6.354								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.354
	1	**2021**	**Total**	**31.508**	**.000**	**31.508**								**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**31.508**
	1	2022	ARMY	19.419	.000	19.419																		A -	-	-	-	-	-	-	19.419
	1	2022	MC (‡)	4.897	.000	4.897																		A -	-	-	-	-	-	-	4.897
	1	**2022**	**Total**	**24.316**	**.000**	**24.316**																		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**24.316**
	1	2023	ARMY	3.591	.000	3.591																									3.591
	1	2023	MC (‡)	.600	.000	.600																									.600
	1	**2023**	**Total**	**4.191**	**.000**	**4.191**																									**4.191**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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) [NA37]

Cost Elements (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 88826																															
	1	2021	ARMY	25.154	.000	25.154	-	-	-	-	-	-	-	2.105	2.105	2.105	2.105	2.105	2.105	2.105	2.105	2.105	2.107	2.040	2.062						.000
	1	2021	MC (‡)	6.354	.000	6.354	-	-	-	-	-	-	-	.529	.529	.529	.529	.529	.529	.529	.529	.529	.529	.529	.535						.000
	1	**2021**	**Total**	**31.508**	**.000**	**31.508**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.634**	**2.634**	**2.634**	**2.634**	**2.634**	**2.634**	**2.634**	**2.634**	**2.634**	**2.636**	**2.569**	**2.597**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2022	ARMY	19.419	.000	19.419	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.568	1.608	1.618	1.618	1.618	1.618	1.618	8.153
	1	2022	MC (‡)	4.897	.000	4.897	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.400	.400	.410	.410	.410	.410	.410	2.047
	1	**2022**	**Total**	**24.316**	**.000**	**24.316**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.968**	**2.008**	**2.028**	**2.028**	**2.028**	**2.028**	**2.028**	**10.200**
	1	2023	ARMY	3.591	.000	3.591						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.591
	1	2023	MC (‡)	.600	.000	.600						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.600
	1	**2023**	**Total**	**4.191**	**.000**	**4.191**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.191**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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) [NA37]

Cost Elements (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
							Calendar Year 2025												Calendar Year 2026												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 88826																															
	1	2021	ARMY	25.154	25.154	.000																									.000
	1	2021	MC (‡)	6.354	6.354	.000																									.000
	1	**2021**	**Total**	**31.508**	**31.508**	**.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2022	ARMY	19.419	11.266	8.153	1.618	1.668	1.668	1.678	1.521																				.000
	1	2022	MC (‡)	4.897	2.850	2.047	.410	.410	.410	.410	.407																				.000
	1	**2022**	**Total**	**24.316**	**14.116**	**10.200**	**2.028**	**2.078**	**2.078**	**2.088**	**1.928**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2023	ARMY	3.591	.000	3.591	-	-	-	-	-	.291	.300	.300	.300	.300	.300	.300	.300	.300	.300	.300	.300								.000
	1	2023	MC (‡)	.600	.000	.600	-	-	-	-	-	.200	.200	.200	-	-	-	-	-	-	-	-	-								.000
	1	**2023**	**Total**	**4.191**	**.000**	**4.191**	**-**	**-**	**-**	**-**	**-**	**.491**	**.500**	**.500**	**.300**	**.300**	**.300**	**.300**	**.300**	**.300**	**.300**	**.300**	**.300**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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) [NA37]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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) [NZ04]
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	24.677	37.891	-	37.891
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	24.677	37.891	-	37.891
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**24.677**	**37.891**	**-**	**37.891**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	33,601.85	540	18.145	-	-	-	33,601.85	540	18.145
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*17.266*	-	-	*18.145*	-	-	-	-	-	*18.145*
Non Recurring Cost																		
Test Hardware	-	-	-	-	-	-	-	-	3.200	-	-	1.000	-	-	-	-	-	1.000
Training Aids	-	-	-	-	-	-	-	-	-	-	-	3.000	-	-	-	-	-	3.000
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	*3.200*	-	-	*4.000*	-	-	-	-	-	*4.000*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***20.466***	**-**	**-**	***22.145***	**-**	**-**	**-**	**-**	**-**	***22.145***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	0.300	-	-	0.600	-	-	-	-	-	0.600
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.300***	**-**	**-**	***0.600***	**-**	**-**	**-**	**-**	**-**	***0.600***
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	-	-	-	-	-	-	-	-	-	6.946	-	-	-	-	-	6.946
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***6.946***	**-**	**-**	**-**	**-**	**-**	***6.946***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	2.230	-	-	3.200	-	-	-	-	-	3.200

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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) [NZ04]
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Production Engineering Cost	-	-	-	-	-	-	-	-	***2.230***	-	-	***3.200***	-	-	-	-	-	***3.200***
Support - Support Equipment Cost																		
Test and Measurement Equipment	-	-	-	-	-	-	-	-	0.781	-	-	-	-	-	-	-	-	-
Subtotal: Support - Support Equipment Cost	-	-	-	-	-	-	-	-	***0.781***	-	-	-	-	-	-	-	-	-
Support - System Engineering Cost																		
Weapons Fire Control	-	-	-	-	-	-	-	-	0.900	-	-	5.000	-	-	-	-	-	5.000
Subtotal: Support - System Engineering Cost	-	-	-	-	-	-	-	-	***0.900***	-	-	***5.000***	-	-	-	-	-	***5.000***
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	**24.677**	-	-	**37.891**	-	-	-	-	-	**37.891**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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) [NZ04]

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
COMPLETE ROUND(†)		2022	TBS / TBS	Option / CPFF	PICATINNY ARSENAL, NJ	Aug 2022	Jul 2023	270	63,946.50	Y	Feb 2021	Mar 2021
COMPLETE ROUND(†)		2023	TBS / TBS	Option / CPFF	PICATINNY ARSENAL, NJ	Dec 2022	Dec 2023	540	33,601.85	Y	Feb 2021	

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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) [NZ04]

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	270	0	270											A -	-	-	-	-	-	-	-	-	-	-	30	60	60	120
	1	2023	ARMY	540	0	540															A -	-	-	-	-	-	-	-	-	-	540
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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) [NZ04]

Cost Elements (Units in Each)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	270	150	120	60	60																							0
	1	2023	ARMY	540	0	540	-	-	60	60	60	60	60	60	60	60	60														0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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) [NZ04]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	TBS - TBS	25	60	60	3	3	20	23	3	3	20	23

"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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 [DZ69]
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	0.010	7.802	-	7.802
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	0.010	7.802	-	7.802
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**0.010**	**7.802**	**-**	**7.802**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 OA(†)	-	-	-	-	-	-	-	-	-	2,467.57	642	1.584	-	-	-	2,467.57	642	1.584
Complete Round UMR(†)	-	-	-	-	-	-	-	-	-	2,467.57	2,173	5.362	-	-	-	2,467.57	2,173	5.362
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*6.946*	-	-	-	-	-	*6.946*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***6.946***	**-**	**-**	**-**	**-**	**-**	***6.946***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.310	-	-	-	-	-	0.310
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.310***	**-**	**-**	**-**	**-**	**-**	***0.310***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.010	-	-	0.546	-	-	-	-	-	0.546
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.010***	**-**	**-**	***0.546***	**-**	**-**	**-**	**-**	**-**	***0.546***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.010**	**-**	**-**	**7.802**	**-**	**-**	**-**	**-**	**-**	**7.802**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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 [DZ69]

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
COMPLETE ROUND OA		2023	GD MARION / MARION, IL	SS / CPIF	ROCK ISLAND ARSENAL, IL	Oct 2022	Nov 2023	642	2,467.57	Y		
Complete Round UMR(†)		2023	GD MARION / MARION, IL	SS / FFP	ROCK ISLAND ARSENAL, IL	Jun 2023	Jun 2024	2,173	2,467.57	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 [DZ69]

Cost Elements (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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 UMR																															
	1	2023	ARMY	2,173	0	2,173									A -	-	-	-	-	-	-	-	-	-	-	-	2,173				0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 [DZ69]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	GD MARION - MARION, IL	500	5,000	10,000	8	8	12	20	8	8	12	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	0.010	9.395	-	9.395
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	0.010	9.395	-	9.395
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**0.010**	**9.395**	**-**	**9.395**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 OA(†)	-	-	-	-	-	-	-	-	-	930.00	880	0.818	-	-	-	930.00	880	0.818
STUB CHARGE TACTICAL OA(†)	-	-	-	-	-	-	-	-	-	1,780.00	1,480	2.634	-	-	-	1,780.00	1,480	2.634
STUB CHARGE TRAINING UMR(†)	-	-	-	-	-	-	-	-	-	930.00	2,588	2.407	-	-	-	930.00	2,588	2.407
STUB CHARGE TACTICAL UMR(†)	-	-	-	-	-	-	-	-	-	1,780.00	1,238	2.204	-	-	-	1,780.00	1,238	2.204
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*8.063*	-	-	-	-	-	*8.063*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***8.063***	**-**	**-**	**-**	**-**	**-**	***8.063***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.366	-	-	-	-	-	0.366
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.366***	**-**	**-**	**-**	**-**	**-**	***0.366***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.010	-	-	0.966	-	-	-	-	-	0.966
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.010***	**-**	**-**	***0.966***	**-**	**-**	**-**	**-**	**-**	***0.966***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.010**	**-**	**-**	**9.395**	**-**	**-**	**-**	**-**	**-**	**9.395**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
STUB CHARGE TRAINING OA		2023	GENERAL DYNAMICS MARION / MARION, IL.	SS / CPIF	ROCK ISLAND ARSENAL, IL	Oct 2022	Aug 2023	880	930.00	Y		
STUB CHARGE TACTICAL OA		2023	GENERAL DYNAMICS MARION / MARION, IL.	SS / CPIF	ROCK ISLAND ARSENAL, IL	Oct 2022	Oct 2023	1,480	1,780.00	Y		
STUB CHARGE TRAINING UMR		2023	GENERAL DYNAMICS MARION / MARION, IL.	SS / FFP	ROCK ISLAND ARSENAL, IL	Jun 2023	Jun 2024	2,588	930.00	Y		
STUB CHARGE TACTICAL UMR		2023	GENERAL DYNAMICS MARION / MARION, IL.	SS / FFP	ROCK ISLAND ARSENAL, IL	Jun 2023	Jun 2024	1,238	1,780.00	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	10.000	-	13.653	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10.000	-	13.653	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10.000**	**-**	**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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*10.000*	-	-	-	-	-	*11.112*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***10.000***	**-**	**-**	**-**	**-**	**-**	***11.112***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	0.313	-	-	-	-	-	-	-	-	-
First Article Test	-	-	-	-	-	-	-	-	1.000	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.313***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	1.227	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.227***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**10.000**	**-**	**-**	**-**	**-**	**-**	**13.653**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
Complete Round		2022	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Jun 2022	Jun 2024	8,118	1,368.84	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	719.751	67.131	36.030	31.275	-	31.275
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	719.751	67.131	36.030	31.275	-	31.275
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**719.751**	**67.131**	**36.030**	**31.275**	**-**	**31.275**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	1,729.03	380,157	657.304	32.61	306,000	9.979	40.32	156,192	6.298	47.46	127,006	6.028	-	-	-	47.46	127,006	6.028
PROPELLANT, M31A2(†)	19.76	1,890,831	37.363	20.62	1,494,000	30.806	21.03	752,845	15.832	21.45	612,168	13.131	-	-	-	21.45	612,168	13.131
CONTAINER, M232A1(†)	44.00	80,730	3.552	124.85	54,324	6.782	80.29	32,800	2.634	81.90	26,671	2.184	-	-	-	81.90	26,671	2.184
CTG CASE COMBUSTIBLE F/155MM M(†)	44.15	382,360	16.881	53.58	277,856	14.888	56.69	160,877	9.120	58.67	130,816	7.675	-	-	-	58.67	130,816	7.675
*IGNITION PROPELLANT, MACS(†)	-	-	-	11.05	20,269	0.224	-	-	-	-	-	-	-	-	-	-	-	-
IGNITION PROPELLANT, MACS(†)	10.83	25,317	0.274	-	-	-	11.27	10,152	0.114	11.49	8,255	0.095	-	-	-	11.49	8,255	0.095
Subtotal: Recurring Cost	-	-	*715.374*	-	-	*62.679*	-	-	*33.998*	-	-	*29.113*	-	-	-	-	-	*29.113*
Subtotal: Hardware Cost	**-**	**-**	***715.374***	**-**	**-**	***62.679***	**-**	**-**	***33.998***	**-**	**-**	***29.113***	**-**	**-**	**-**	**-**	**-**	***29.113***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.750	-	-	0.750	-	-	0.245	-	-	0.203	-	-	-	-	-	0.203
First Article Test	-	-	0.138	-	-	0.107	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Acceptance Testing Cost	-	-	***0.888***	-	-	***0.857***	-	-	***0.245***	-	-	***0.203***	-	-	-	-	-	***0.203***
Support - Government Furnished Materials Cost																		
Government Furnished Materials	-	-	-	-	-	0.224	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Government Furnished Materials Cost	-	-	-	-	-	***0.224***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
Production Engineering	-	-	3.488	-	-	3.371	-	-	1.787	-	-	1.959	-	-	-	-	-	1.959
Subtotal: Support - Production Engineering Cost	-	-	***3.488***	-	-	***3.371***	-	-	***1.787***	-	-	***1.959***	-	-	-	-	-	***1.959***
Gross/Weapon System Cost	-	-	**719.751**	-	-	**67.131**	-	-	**36.030**	-	-	**31.275**	-	-	-	-	-	**31.275**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)(†)		2021	GENERAL DYNAMICS-OTS, INC. / HAMPTON, AR	Option / IDIQ	PICATINNY ARSENAL, NJ	Aug 2021	Aug 2023	306,000	32.61	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2022	TO BE SELECTED / TBS01	Option / IDIQ	PICATINNY ARSENAL, NJ	Apr 2022	Mar 2024	156,192	40.32	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	TO BE SELECTED / TBS01	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2025	127,006	47.46	Y		
PROPELLANT, M31A2		2021	GEN DYNAMICS ORDNANCE AND / SALABERRY-DE-VALLEYFIELD, CANADA	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2020	Aug 2022	1,494,000	20.62	Y		
PROPELLANT, M31A2		2022	GEN DYNAMICS ORDNANCE AND / SALABERRY-DE-VALLEYFIELD, CANADA	Option / IDIQ	PICATINNY ARSENAL, NJ	Apr 2022	Nov 2023	752,845	21.03	Y		
PROPELLANT, M31A2		2023	GEN DYNAMICS ORDNANCE AND / SALABERRY-DE-VALLEYFIELD, CANADA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2023	Nov 2024	612,168	21.45	Y		
CONTAINER, M232A1		2021	TO BE SELECTED / TBS01	Option / IDIQ	PICATINNY ARSENAL, NJ	Dec 2021	Dec 2022	54,324	124.85	Y		
CONTAINER, M232A1		2022	TO BE SELECTED / TBS01	Option / IDIQ	PICATINNY ARSENAL, NJ	Apr 2022	Apr 2023	32,800	80.29	Y		
CONTAINER, M232A1		2023	TO BE SELECTED / TBS01	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2024	26,671	81.90	Y		
CTG CASE COMBUSTIBLE F/155MM M		2021	ARMTEC DEFENSE PRODUCTS CO / COACHELLA, CA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2021	Mar 2022	277,856	53.58	Y		
CTG CASE COMBUSTIBLE F/155MM M		2022	ARMTEC DEFENSE PRODUCTS CO / COACHELLA, CA	Option / IDIQ	PICATINNY ARSENAL, NJ	Apr 2022	Mar 2023	160,877	56.69	Y		
CTG CASE COMBUSTIBLE F/155MM M		2023	ARMTEC DEFENSE PRODUCTS CO / COACHELLA, CA	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2024	130,816	58.67	Y		
*IGNITION PROPELLANT, MACS		2021	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	PICATINNY ARSENAL, NJ	Sep 2021	Sep 2021	20,269	11.05	Y		
IGNITION PROPELLANT, MACS		2022	ST. MARKS POWDER INC. / CRAWFORDVILLE, FL	Option / IDIQ	PICATINNY ARSENAL, NJ	Apr 2022	Apr 2023	10,152	11.27	Y		
IGNITION PROPELLANT, MACS		2023	ST. MARKS POWDER INC. / CRAWFORDVILLE, FL	Option / IDIQ	PICATINNY ARSENAL, NJ	Mar 2023	Mar 2024	8,255	11.49	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 380157																															
	1	2021	ARMY	306.000	.000	306.000											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	306.000
	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**
	2	2023	ARMY	127.006	.000	127.006																									127.006
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 380157																															
	1	2021	ARMY	306.000	.000	306.000	-	-	-	-	-	-	-	-	-	-	25.500	25.500	25.500	25.500	25.500	25.500	25.500	25.500	25.500	25.500	25.500			.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**
	2	2023	ARMY	127.006	.000	127.006						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	127.006
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 380157																															
	1	2021	ARMY	306.000	306.000	.000																									.000
	2	2022	ARMY	156.192	156.192	.000																									.000
	2	2022	MC (‡)	120.762	120.762	.000																									.000
	2	**2022**	**Total**	**276.954**	**276.954**	**.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	2	2023	ARMY	127.006	.000	127.006	-	-	-	-	-	10.583	10.583	10.583	10.583	10.583	10.583	10.583	10.583	10.583	10.583	10.583	10.593								.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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-OTS, INC. - HAMPTON, AR	30,000	50,000	80,000	6	6	24	30	6	6	24	30
2	TO BE SELECTED - TBS01	30,000	50,000	80,000	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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	385.461	48.966	20.980	80.920	-	80.920	80.012	44.195	27.911	27.903	-	716.348
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	385.461	48.966	20.980	80.920	-	80.920	80.012	44.195	27.911	27.903	-	716.348
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**385.461**	**48.966**	**20.980**	**80.920**	**-**	**80.920**	**80.012**	**44.195**	**27.911**	**27.903**	**-**	**716.348**
(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 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) 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 MK126 Mod 0 rocket motor to propel a line charge over the obstacle. The line is then detonated, clearing a lane. The APOBS System is being actively used in Combat Engineering Operations. This item is Code A, approved for service use.

(E75101) M58A4 Linear Demolition Charge, commonly called the MICLIC, is deployed by the MK22 Mod 4 rocket from a MK155 launcher mounted to a M200A1 trailer or from the M1150 Assault Breacher Vehicle. Once deployed over the target minefield by the rocket, it is command detonated, clearing a vehicle width lane 100 meter long. The MICLIC is effective against single impulse, pressure fuzed mines. The M58A4 is less effective against blast hardened or complex fused mines. The M58A4 is being actively used in Combat Engineering Operations. This item is Code A, approved for service use.

(E75102) Line Charge Inert M68A2 F/MICLIC 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 MOD 4 rocket and used up to three times. This item is Code A, approved for service use.

(E76900) The MK22 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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, P-21	A		- / 23.600	- / 0.468	- / 4.965	- / 7.961	- / -	- / 7.961
P-5	E72800 / Anti-Pers Obstacle Breachng Sys(APOBS), MK7 w/Mods [MN79]	P-5a, P-21	A		- / 111.539	- / 23.975	- / 9.239	- / 22.307	- / -	- / 22.307
P-5	E75101 / Line Charge, M58 Series Mine Clearing f/MICLIC [M913]	P-5a, P-21	A		- / 129.275	- / -	- / 1.323	- / 22.025	- / -	- / 22.025
P-5	E75102 / LINE CHARGE INERT M68A2 F/MICLIC [M914]	P-5a, P-21	A		- / 45.467	- / 10.979	- / 5.453	- / 15.883	- / -	- / 15.883
P-5	E76900 / ROCKET, Motor 5 in, MK22 MOD 4 f/MICLIC [J143]	P-5a, P-21	A		- / 75.580	- / 13.544	- / -	- / 12.744	- / -	- / 12.744
P-40	**Total Gross/Weapon System Cost**				**- / 385.461**	**- / 48.966**	**- / 20.980**	**- / 80.920**	**- / -**	**- / 80.920**

*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 2023 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 2023 Total Base dollars in the amount of $80.920 million supports the procurement of 5 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 2023 request supports annual training and builds a reserve to support out year training in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $7.961 million supports the production of 1,146 Volcanos.

Type Classification Date: 1989

(E72800) Anti-Personnel Obstacle Breaching Sys (APOBS)
This is a training standard item used in training and combat. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $22.307 million supports the procurement of 1,388 APOBS. Rocket Motor Grains and PBXN-10 explosive are provided as Government Furnished Material. Naval Surface Warfare Center Indian Head produces rocket motor grains. PBXN-10 is currently sourced from Holston Army Ammunition Plant. The sole National Technology and Industrial Base (NTIB) source for N-5 propellant used in rocket motor grain production is Radford Army Ammunition Plant.

Type Classification Date: 2001

(E75101) Mine Clearing Line Charge M58 Series (MICLIC)

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

This is a training standard item used in training and combat. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $22.025 million supports the procurement of 280 MICLICs. LAP is conducted by American Ordnance at Iowa Army Ammunition Plant. C4 explosive is provided as Government Furnished Material and sourced from Holston Army Ammunition Plant.

Type Classification Date: 1985

(E75102) Line Charge Inert M68A2 F/MICLIC
This is a training standard item used in training. FY 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $15.883 million supports the procurement of 378 MICLIC Inert items. LAP is conducted by American Ordnance at Iowa Army Ammunition Plant.

Type Classification Date: 1985

(E76900) MICLIC 5 In Rocket Motor MK 22 MOD 4
This is a training standard item used in training and combat. FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $12.744 million supports the procurement of 532 Rocket Motors. LAP is conducted by Naval Surface Warfare Center Indian Head which awards direct cite funded contracts for subcomponents. The sole NTIB (National Technology and Industrial Base) source for N-5 propellant is Radford Army Ammunition Plant.

Type Classification Date: 1985

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	23.600	0.468	4.965	7.961	-	7.961
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	23.600	0.468	4.965	7.961	-	7.961
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**23.600**	**0.468**	**4.965**	**7.961**	**-**	**7.961**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	693	3.854	5,673.23	1,146	6.502	-	-	-	5,673.23	1,146	6.502
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*3.854*	-	-	*6.502*	-	-	-	-	-	*6.502*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.854***	**-**	**-**	***6.502***	**-**	**-**	**-**	**-**	**-**	***6.502***
Support - Production Engineering Cost																		
Production Engineering	-	-	23.600	-	-	0.468	-	-	1.111	-	-	1.459	-	-	-	-	-	1.459
Subtotal: Support - Production Engineering Cost	**-**	**-**	***23.600***	**-**	**-**	***0.468***	**-**	**-**	***1.111***	**-**	**-**	***1.459***	**-**	**-**	**-**	**-**	**-**	***1.459***
Gross/Weapon System Cost	**-**	**-**	**23.600**	**-**	**-**	**0.468**	**-**	**-**	**4.965**	**-**	**-**	**7.961**	**-**	**-**	**-**	**-**	**-**	**7.961**

Remarks:
E72194 / MINE, Practice, M88 (VOLCANO) - Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the Mines Clearing Charges BLIN support.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND(†)		2022	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Sep 2022	Dec 2023	693	5,562.00	Y		Jan 2022
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	May 2023	Jul 2025	1,146	5,673.23	Y		

(†) indicates the presence of a P-21

Remarks:
FY 2022 September award is a new contract. Delay in contract award due to multiple contractors asking for additional information and extensions to submit their proposals.

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	693	0	693												A -	-	-	-	-	-	-	-	-	-	-	-	-	693
	1	2023	ARMY	1,146	0	1,146																				A -	-	-	-	-	1,146
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	693	0	693	-	-	100	120	123	150	200																		0
	1	2023	ARMY	1,146	0	1,146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	101	95	95		855
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2026												Fiscal Year 2027												BALANCE
							Calendar Year 2026												Calendar Year 2027												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2025	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	693	693	0																									0
	1	2023	ARMY	1,146	291	855	95	95	95	95	95	95	95	95	95																0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	100	500	1,000	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	111.539	23.975	9.239	22.307	-	22.307
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	111.539	23.975	9.239	22.307	-	22.307
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**111.539**	**23.975**	**9.239**	**22.307**	**-**	**22.307**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	8,760.92	2,193	19.213	11,663.89	580	6.765	12,190.84	1,388	16.921	-	-	-	12,190.84	1,388	16.921
PBXN-10 TYPE 2(†)	27.97	2,280	0.064	26.22	5,000	0.131	28.22	1,740	0.049	28.78	4,164	0.120	-	-	-	28.78	4,164	0.120
PBXN-10 TYPE 1(†)	20.26	45,600	0.924	25.28	96,300	2.434	27.18	31,900	0.867	27.72	76,340	2.116	-	-	-	27.72	76,340	2.116
PROPELLANT GRAIN (ROCKET)(†)	553.58	1,003	0.555	537.46	1,910	1.027	548.21	725	0.397	559.17	1,735	0.970	-	-	-	559.17	1,735	0.970
Subtotal: Recurring Cost	-	-	*100.027*	-	-	*22.805*	-	-	*8.079*	-	-	*20.127*	-	-	-	-	-	*20.127*
Subtotal: Hardware Cost	**-**	**-**	***100.027***	**-**	**-**	***22.805***	**-**	**-**	***8.079***	**-**	**-**	***20.127***	**-**	**-**	**-**	**-**	**-**	***20.127***
Support - Production Engineering Cost																		
Production Engineering	-	-	1.487	-	-	1.159	-	-	1.154	-	-	2.172	-	-	-	-	-	2.172
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.487***	**-**	**-**	***1.159***	**-**	**-**	***1.154***	**-**	**-**	***2.172***	**-**	**-**	**-**	**-**	**-**	***2.172***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	10.025	-	-	0.012	-	-	0.006	-	-	0.008	-	-	-	-	-	0.008
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***10.025***	**-**	**-**	***0.012***	**-**	**-**	***0.006***	**-**	**-**	***0.008***	**-**	**-**	**-**	**-**	**-**	***0.008***
Gross/Weapon System Cost	**-**	**-**	**111.539**	**-**	**-**	**23.975**	**-**	**-**	**9.239**	**-**	**-**	**22.307**	**-**	**-**	**-**	**-**	**-**	**22.307**

Remarks:

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

E72800 / Anti-Personnel Obstacle Breaching Sys(APOBS), MK7 w/Mods - Production Engineering increased due to change in Single Manager for Conventional Ammunition (SMCAs) Military Services planned procurements and reflects Army?s pro-rated share of the family of Mines & Clearing Charges BLIN support.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)(†)		2021	NAMMO PERRY INC. / PERRY, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Jul 2021	Jun 2023	2,193	8,760.92	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	May 2022	Nov 2023	580	11,663.89	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Sep 2024	1,388	12,190.84	Y		
PBXN-10 TYPE 2		2021	BAE Systems Ordnance Systems INC. / Kingsport, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2021	Jan 2023	5,000	26.22	Y		
PBXN-10 TYPE 2		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	May 2022	Sep 2023	1,740	28.22	Y		
PBXN-10 TYPE 2		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Jul 2024	4,164	28.78	Y		
PBXN-10 TYPE 1		2021	BAE Systems Ordnance Systems INC. / Kingsport, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2021	Jan 2023	96,300	25.28	Y		
PBXN-10 TYPE 1		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	May 2022	Sep 2023	31,900	27.18	Y		
PBXN-10 TYPE 1		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Jul 2024	76,340	27.72	Y		
PROPELLANT GRAIN (ROCKET)		2021	Naval Surface Warfare Center / Indian Head, MD	PO	ROCK ISLAND ARSENAL, IL	Mar 2022	May 2023	1,910	537.46	Y		
PROPELLANT GRAIN (ROCKET)		2022	Naval Surface Warfare Center / Indian Head, MD	PO	ROCK ISLAND ARSENAL, IL	Mar 2022	Aug 2023	725	548.21	Y		
PROPELLANT GRAIN (ROCKET)		2023	Naval Surface Warfare Center / Indian Head, MD	PO	ROCK ISLAND ARSENAL, IL	Mar 2023	Aug 2024	1,735	559.17	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 912																															
	1	2021	ARMY	2,193	0	2,193										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,193
	1	2021	MC (‡)	550	0	550										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	550
	1	**2021**	**Total**	**2,743**	**0**	**2,743**										**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2,743**
	2	2022	ARMY	580	0	580																				A -	-	-	-	-	580
	2	2022	MC (‡)	486	0	486																				A -	-	-	-	-	486
	2	**2022**	**Total**	**1,066**	**0**	**1,066**																				**-**	**-**	**-**	**-**	**-**	**1,066**
	2	2023	ARMY	1,388	0	1,388																									1,388
	2	2023	MC (‡)	68	0	68																									68
	2	**2023**	**Total**	**1,456**	**0**	**1,456**																									**1,456**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 912																															
	1	2021	ARMY	2,193	0	2,193	-	-	-	-	-	-	-	-	191	182	182	182	182	182	182	182	182	182	182	182					0
	1	2021	MC (‡)	550	0	550	-	-	-	-	91	350	109	-	-	-	-	-	-	-	-	-	-	-	-	-					0
	1	**2021**	**Total**	**2,743**	**0**	**2,743**	**-**	**-**	**-**	**-**	**91**	**350**	**109**	**-**	**191**	**182**	**182**	**182**	**182**	**182**	**182**	**182**	**182**	**182**	**182**	**182**	**-**	**-**	**-**	**-**	**0**
	2	2022	ARMY	580	0	580	-	-	-	-	-	-	-	-	-	-	-	-	-	52	48	48	48	48	48	48	48	48	48	48	48
	2	2022	MC (‡)	486	0	486	-	-	-	-	-	-	-	-	-	-	-	-	-	46	40	40	40	40	40	40	40	40	40	40	40
	2	**2022**	**Total**	**1,066**	**0**	**1,066**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**98**	**88**	**88**	**88**	**88**	**88**	**88**	**88**	**88**	**88**	**88**	**88**
	2	2023	ARMY	1,388	0	1,388						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	1,271
	2	2023	MC (‡)	68	0	68						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	55
	2	**2023**	**Total**	**1,456**	**0**	**1,456**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**130**	**1,326**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 912																															
	1	2021	ARMY	2,193	2,193	0																									0
	1	2021	MC (‡)	550	550	0																									0
	1	**2021**	**Total**	**2,743**	**2,743**	**0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0**
	2	2022	ARMY	580	532	48	48																								0
	2	2022	MC (‡)	486	446	40	40																								0
	2	**2022**	**Total**	**1,066**	**978**	**88**	**88**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0**
	2	2023	ARMY	1,388	117	1,271	121	115	115	115	115	115	115	115	115	115	115														0
	2	2023	MC (‡)	68	13	55	5	5	5	5	5	5	5	5	5	5	5														0
	2	**2023**	**Total**	**1,456**	**130**	**1,326**	**126**	**120**	**120**	**120**	**120**	**120**	**120**	**120**	**120**	**120**	**120**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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 PERRY INC. - PERRY, FL	25	130	576	8	8	24	32	6	6	18	24
2	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	129.275	-	1.323	22.025	-	22.025
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	129.275	-	1.323	22.025	-	22.025
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**129.275**	**-**	**1.323**	**22.025**	**-**	**22.025**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	31,939.72	280	8.943	-	-	-	31,939.72	280	8.943
COMP C-4 CLASS 3(†)	-	-	-	-	-	-	17.51	29,630	0.519	17.86	518,520	9.261	-	-	-	17.86	518,520	9.261
FUZE, DEMOLITION KIT: M1134A4 (FOR MICLIC)(†)	-	-	-	-	-	-	6,473.78	16	0.104	6,603.25	280	1.849	-	-	-	6,603.25	280	1.849
Subtotal: Recurring Cost	-	-	*129.075*	-	-	-	-	-	*1.068*	-	-	*20.053*	-	-	-	-	-	*20.053*
Subtotal: Hardware Cost	**-**	**-**	***129.075***	**-**	**-**	**-**	**-**	**-**	***1.068***	**-**	**-**	***20.053***	**-**	**-**	**-**	**-**	**-**	***20.053***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.072	-	-	-	-	-	0.072
First Article Test	-	-	0.200	-	-	-	-	-	0.165	-	-	0.191	-	-	-	-	-	0.191
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.200***	**-**	**-**	**-**	**-**	**-**	***0.165***	**-**	**-**	***0.263***	**-**	**-**	**-**	**-**	**-**	***0.263***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.087	-	-	1.706	-	-	-	-	-	1.706
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.087***	**-**	**-**	***1.706***	**-**	**-**	**-**	**-**	**-**	***1.706***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	0.003	-	-	0.004	-	-	-	-	-	0.004

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	-	-	-	-	-	-	***0.003***	-	-	***0.004***	-	-	-	-	-	***0.004***
Gross/Weapon System Cost	-	-	**129.275**	-	-	-	-	-	**1.323**	-	-	**22.025**	-	-	-	-	-	**22.025**

Remarks:
Production Engineering Cost increases from FY 2022 to FY 2023 due to additional support for Fuze producibility and system reliability efforts. FY 2023 unit cost increase is based on contractual unit prices in the second ordering period.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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]

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)(†)		2022	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	Option / FFP	ROCK ISLAND ARSENAL, IL	May 2022	Dec 2024	16	27,870.52	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	Option / FFP	ROCK ISLAND ARSENAL, IL	Jun 2023	Dec 2024	280	31,939.72	Y		
COMP C-4 CLASS 3		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Jun 2022	29,630	17.51	Y		
COMP C-4 CLASS 3		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	May 2023	518,520	17.86	Y		
FUZE, DEMOLITION KIT: M1134A4 (FOR MICLIC)		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	May 2022	Mar 2023	16	6,473.78	Y		
FUZE, DEMOLITION KIT: M1134A4 (FOR MICLIC)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	May 2023	280	6,603.25	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 4950																															
	1	2022	ARMY	16	0	16								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
	1	2023	ARMY	280	0	280																					A -	-	-	-	280
	1	2023	MC (‡)	13	0	13																					A -	-	-	-	13
	1	**2023**	**Total**	**293**	**0**	**293**																					**-**	**-**	**-**	**-**	**293**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Each)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 4950																															
	1	2022	ARMY	16	0	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16										0
	1	2023	ARMY	280	0	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	23	23	23	23	23	23	23	23	23	46
	1	2023	MC (‡)	13	0	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	1	1	1	1	1	1	1	2
	1	**2023**	**Total**	**293**	**0**	**293**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**29**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**48**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Each)							Fiscal Year 2026												Fiscal Year 2027												BALANCE
							Calendar Year 2026												Calendar Year 2027												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2025	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 4950																															
	1	2022	ARMY	16	16	0																									0
	1	2023	ARMY	280	234	46	23	23																							0
	1	2023	MC (‡)	13	11	2	1	1																							0
	1	**2023**	**Total**	**293**	**245**	**48**	**24**	**24**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	25	75	100	8	8	24	32	6	9	18	27

(‡) 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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	45.467	10.979	5.453	15.883	-	15.883
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	45.467	10.979	5.453	15.883	-	15.883
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**45.467**	**10.979**	**5.453**	**15.883**	**-**	**15.883**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	36,395.45	280	10.191	61,048.53	78	4.762	37,966.98	378	14.352	-	-	-	37,966.98	378	14.352
Subtotal: Recurring Cost	-	-	*8.221*	-	-	*10.191*	-	-	*4.762*	-	-	*14.352*	-	-	-	-	-	*14.352*
Subtotal: Hardware Cost	**-**	**-**	***8.221***	**-**	**-**	***10.191***	**-**	**-**	***4.762***	**-**	**-**	***14.352***	**-**	**-**	**-**	**-**	**-**	***14.352***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.045	-	-	-	-	-	0.045
First Article Test	-	-	0.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.250***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.045***	**-**	**-**	**-**	**-**	**-**	***0.045***
Support - Production Engineering Cost																		
Production Engineering	-	-	36.989	-	-	0.788	-	-	0.684	-	-	1.483	-	-	-	-	-	1.483
Subtotal: Support - Production Engineering Cost	**-**	**-**	***36.989***	**-**	**-**	***0.788***	**-**	**-**	***0.684***	**-**	**-**	***1.483***	**-**	**-**	**-**	**-**	**-**	***1.483***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.007	-	-	-	-	-	0.007	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.007***	**-**	**-**	**-**	**-**	**-**	***0.007***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**45.467**	**-**	**-**	**10.979**	**-**	**-**	**5.453**	**-**	**-**	**15.883**	**-**	**-**	**-**	**-**	**-**	**15.883**

Remarks:

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

E75102 / LINE CHARGE INERT M68A2 F/MICLIC - FY 2023 unit cost was based on new contract pricing matrix. New contract was awarded to American Ordnance, IA in April 2021.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND(†)		2021	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2021	May 2023	280	36,395.45	Y		
COMPLETE ROUND(†)		2022	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Sep 2023	78	61,048.53	Y		
COMPLETE ROUND(†)		2023	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Aug 2024	378	37,966.98	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 135																															
	1	2021	ARMY	280	0	280								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	280
	1	2022	ARMY	78	0	78																		A -	-	-	-	-	-	-	78
	1	2023	ARMY	378	0	378																									378
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 135																															
	1	2021	ARMY	280	0	280	-	-	-	-	-	-	-	72	-	100	-	108													0
	1	2022	ARMY	78	0	78	-	-	-	-	-	-	-	-	-	-	-	39	39												0
	1	2023	ARMY	378	0	378						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	31	310
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 135																															
	1	2021	ARMY	280	280	0																									0
	1	2022	ARMY	78	78	0																									0
	1	2023	ARMY	378	68	310	31	31	31	31	31	31	31	31	31	31															0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	5	15	50	8	8	24	32	8	6	18	24

Remarks:
FY 2022 funding will be awarded to American Ordnance, LLC in March 2022.

"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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	75.580	13.544	-	12.744	-	12.744
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	75.580	13.544	-	12.744	-	12.744
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**75.580**	**13.544**	**-**	**12.744**	**-**	**12.744**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	10,959.54	780	8.548	-	-	-	20,017.32	532	10.649	-	-	-	20,017.32	532	10.649
PROPELLANT N-5(†)	15.44	62,138	0.959	16.36	71,484	1.169	-	-	-	16.36	37,143	0.608	-	-	-	16.36	37,143	0.608
EC INHIBITING TAPE(†)	61.35	2,332	0.143	-	-	-	-	-	-	65.05	1,393	0.091	-	-	-	65.05	1,393	0.091
Subtotal: Recurring Cost	-	-	*17.529*	-	-	*9.718*	-	-	-	-	-	*11.347*	-	-	-	-	-	*11.347*
Subtotal: Hardware Cost	**-**	**-**	***17.529***	**-**	**-**	***9.718***	**-**	**-**	**-**	**-**	**-**	***11.347***	**-**	**-**	**-**	**-**	**-**	***11.347***
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.090	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.090***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	57.953	-	-	3.826	-	-	-	-	-	1.397	-	-	-	-	-	1.397
Subtotal: Support - Production Engineering Cost	**-**	**-**	***57.953***	**-**	**-**	***3.826***	**-**	**-**	**-**	**-**	**-**	***1.397***	**-**	**-**	**-**	**-**	**-**	***1.397***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.007***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	75.580	-	-	13.544	-	-	-	-	-	12.744	-	-	-	-	-	12.744

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)(†)		2021	NAVAL SURF WARFARE CNTR / LEONARDTOWN, MD	PO	ROCK ISLAND ARSENAL, IL	Aug 2021	Nov 2024	780	10,959.54	Y		
LOAD, ASSEMBLE, PACK (LAP)(†)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	May 2023	May 2025	532	20,017.32	Y		
PROPELLANT N-5		2021	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Nov 2022	71,484	16.36	Y		
PROPELLANT N-5		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Nov 2023	37,143	16.36	Y		
EC INHIBITING TAPE		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Nov 2023	1,393	65.05	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 890																															
	1	2021	ARMY	780	0	780											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	780
	2	2023	ARMY	532	0	532																									532
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 890																															
	1	2021	ARMY	780	0	780	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	780
	2	2023	ARMY	532	0	532								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	532
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 890																															
	1	2021	ARMY	780	0	780	-	140	150	150	150	150	40																		0
	2	2023	ARMY	532	0	532	-	-	-	-	-	-	-	48	44	44	44	44	44	44	44	44	44	44	44						0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	NAVAL SURF WARFARE CNTR - LEONARDTOWN, MD	10	25	75	8	8	24	32	6	6	18	24
2	TO BE SELECTED - TBS01	150	500	1,000	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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	5.994	34.761	53.579	-	53.579	49.637	17.453	12.012	11.258	-	184.694
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	5.994	34.761	53.579	-	53.579	49.637	17.453	12.012	11.258	-	184.694
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**5.994**	**34.761**	**53.579**	**-**	**53.579**	**49.637**	**17.453**	**12.012**	**11.258**	**-**	**184.694**
(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 Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This budget line includes Close Terrain Shaping Obstacle, All Types.

(F76740) The XM343 Standoff Activated Volcano Obstacle (SAVO) meets the requirements of United States Army Europe (USAREUR) Operational Needs Statement (ONS) 18-22702. It provides a new delivery capability for fielded Volcano mine canisters utilizing fielded initiation systems, which are the M7 Spider Networked Munition System, the MK152/M156 Remote Activation Munition Systems (RAMS), or the CD450-4J Blasting Machine. 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 for wires to connect to the selected initiation system for manual initiation. 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. This item is compliant with the DOD landmine policy and executes U.S. Army modernization priorities in support of the National Defense Strategy.
Type Classification Date: TBD

SAVO Full Task Trainer (FTT) base plates will reflect the form, fit, function, and weight of the tactical XM343 SAVO base plate. FTT base plates will produce sight and sound effects, upon receipt of a launch signal from a fielded initiation system, which effectively represents the XM343 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 emplacement trainer will reflect the same form, fit and weight of tactical baseplate and can be utilized in conjunction with the SAVO FTT for a more wide-scale collective training experience at Home Station and the Combat Training Centers.
Type Classification Date: TBD

(F78310) The XM204 meets the requirements of United States Army Europe (USAREUR) Operational Needs Statement (ONS) 18-22702. The XM204 is a hand emplaced, Top Attack, Anti-Vehicular (AV) munition. 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 compliant with the DOD landmine policy and executes U.S. Army modernization priorities in support of the National Defense Strategy. This system will be used as a key component for Terrain Shaping Obstacles (TSO) to influence enemy maneuver or deny access to key terrain.
Type Classification Date: TBD

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

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

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.
Type Classification Date: TBD

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	F76740 / Standoff Activated Volcano Obstacle				- / -	- / -	- / 4.685	- / 4.503	- / -	- / 4.503
P-5	F78310 / Close Terrain Shaping Obstacle	P-5a, P-21			- / -	- / 5.994	- / 30.076	- / 49.076	- / -	- / 49.076
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 5.994**	**- / 34.761**	**- / 53.579**	**- / -**	**- / 53.579**

*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 2023 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.

(F76740) Standoff Activated Volcano Obstacle - FY 2023 base procurement dollars in the amount of $4.503 million supports the production of 10 complete systems of the XM343 Standoff Activated Volcano Obstacles.
Type Classification Date: TBD

(F78310) Close Terrain Shaping Obstacle - The FY 2023 base procurement dollars in the amount of $49.076 million supports the production of 205 complete systems of XM204 Terrain Shaping Obstacle Common Munition Systems and 50 XM98 emplacement trainers.
Type Classification Date: TBD

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	4.685	4.503	-	4.503
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	4.685	4.503	-	4.503
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**4.685**	**4.503**	**-**	**4.503**
(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 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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	220.000	10	2.200	-	-	-	220.000	10	2.200
COMPLETE ROUND TRAINER	-	-	-	-	-	-	40.000	15	0.600	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*2.762*	-	-	*2.200*	-	-	-	-	-	*2.200*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***2.762***	**-**	**-**	***2.200***	**-**	**-**	**-**	**-**	**-**	***2.200***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	-	-	-	0.532	-	-	0.159	-	-	-	-	-	0.159
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.532***	**-**	**-**	***0.159***	**-**	**-**	**-**	**-**	**-**	***0.159***
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	-	-	-	0.352	-	-	0.526	-	-	-	-	-	0.526
Subtotal: Support - New Equipment Training (NET) Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.352***	**-**	**-**	***0.526***	**-**	**-**	**-**	**-**	**-**	***0.526***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.839	-	-	1.291	-	-	-	-	-	1.291
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.839***	**-**	**-**	***1.291***	**-**	**-**	**-**	**-**	**-**	***1.291***
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	-	-	-	0.100	-	-	0.225	-	-	-	-	-	0.225

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	0.102	-	-	-	-	-	0.102
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.200***	**-**	**-**	***0.327***	**-**	**-**	**-**	**-**	**-**	***0.327***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.685**	**-**	**-**	**4.503**	**-**	**-**	**-**	**-**	**-**	**4.503**

Remarks:
(F76740) FY 2022 pricing was based on the Government cost estimate with a projected quantity unit cost completed in FY 2020. FY 2023 prices are projected estimates based on contractor range proposals pending completion of ongoing contract negotiations. Based on available funding and current price projections units will be procured in the highest contractor pricing range, FY 2023 funding does not allow for the most economical buy and also exceeds the original Government cost estimate. FY 2023 New Equipment Training supports the first year of unit NET training. FY 2023 Contractor Management supports contractor from Booz Allen Hamilton to assist in meeting programmatic timelines. FY 2023 Government support covers travel and shipping requirements in support of program.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	5.994	30.076	49.076	-	49.076
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	5.994	30.076	49.076	-	49.076
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**5.994**	**30.076**	**49.076**	**-**	**49.076**
(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 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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	199.874	205	40.974	-	-	-	199.874	205	40.974
COMPLETE ROUND TRAINER(†)	-	-	-	-	-	-	21.237	38	0.807	20.020	50	1.001	-	-	-	20.020	50	1.001
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*25.805*	-	-	*41.975*	-	-	-	-	-	*41.975*
Non Recurring Cost																		
Facilitization	-	-	-	-	-	4.882	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	*4.882*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***4.882***	**-**	**-**	***25.805***	**-**	**-**	***41.975***	**-**	**-**	**-**	**-**	**-**	***41.975***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	0.941	-	-	1.948	-	-	-	-	-	-	-	-	-
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	1.999	-	-	-	-	-	1.999
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	***0.941***	**-**	**-**	***1.948***	**-**	**-**	***1.999***	**-**	**-**	**-**	**-**	**-**	***1.999***
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	-	-	-	0.485	-	-	0.500	-	-	-	-	-	0.500
Subtotal: Support - New Equipment Training (NET) Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.485***	**-**	**-**	***0.500***	**-**	**-**	**-**	**-**	**-**	***0.500***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	0.171	-	-	1.838	-	-	4.602	-	-	-	-	-	4.602

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)
Subtotal: Support - Production Engineering Cost	-	-	-	-	-	*0.171*	-	-	*1.838*	-	-	*4.602*	-	-	-	-	-	*4.602*
Gross/Weapon System Cost	-	-	-	-	-	5.994	-	-	30.076	-	-	49.076	-	-	-	-	-	49.076

Remarks:
FY 2023 Acceptance Testing is Production Verification Testing (PVT) for XM204.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty *(Each)*	Unit Cost *($ K)*	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND TACTICAL(†)		2022	TBS01 / TBS01	TBD	Picatinny Arsenal, NJ	Apr 2022	Apr 2023	119	210.067	N		
COMPLETE ROUND TACTICAL(†)		2023	Textron Defense Systems / Wilmington, MA	SS / FFP	Picatinny Arsenal, NJ	Mar 2023	Jan 2024	205	199.873	N		Apr 2021
COMPLETE ROUND TRAINER		2022	TBS01 / TBS01	TBD	Picatinny Arsenal, NJ	Apr 2022	Jul 2023	38	21.237	N		
COMPLETE ROUND TRAINER		2023	Textron Defense Systems / Wilmington, MA	SS / FFP	Picatinny Arsenal, NJ	Mar 2023	Jul 2024	50	20.020	N	Apr 2021	

(†) indicates the presence of a P-21

Remarks:
FY 2023 quantities are based on estimated unit costs and will be updated after contract award. FY 2022 Contractor is Textron Defense Systems.

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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 TACTICAL																															
	1	2022	ARMY	119	0	119							A -	-	-	-	-	-	-	-	-	-	-	-	17	17	17	17	17	17	17
	2	2023	ARMY	205	0	205																		A -	-	-	-	-	-	-	205
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024												Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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 TACTICAL																															
	1	2022	ARMY	119	102	17	17																								0
	2	2023	ARMY	205	0	205	-	-	-	25	25	25	25	25	25	25	15	15													0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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
2	Textron Defense Systems - Wilmington, MA	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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	593.331	65.113	17.384	18.159	-	18.159	15.157	5.831	3.130	3.133	-	721.238
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	593.331	65.113	17.384	18.159	-	18.159	15.157	5.831	3.130	3.133	-	721.238
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**593.331**	**65.113**	**17.384**	**18.159**	**-**	**18.159**	**15.157**	**5.831**	**3.130**	**3.133**	**-**	**721.238**
(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 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

(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.

(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.

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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]		A		- / 205.715	- / 9.877	- / 3.936	- / 0.767	- / -	- / 0.767
P-5	E36403 / CTG, 7.62mm w/Tracer f/SUBCAL ADPTR553B CARLGSTF [A254]		A		- / 1.176	- / 0.176	- / 0.002	- / 0.181	- / -	- / 0.181
P-5	E36404 / CTG, 84mm Gun, HEDP 502, CARLGSTF (MAAWS) [CA21]		A		- / 10.817	- / 16.988	- / -	- / -	- / -	- / -
P-5	E36405 / CTG, 84mm Gun, HE 441D IM, CARLGSTF (MAAWS) [CA27]		A		- / 9.395	- / 11.027	- / 4.031	- / 4.477	- / -	- / 4.477
P-5	E36406 / CTG, 84mm Gun, TGT PRAC-TR 141, CARLGSTF (MAAWS) [CA10]		A		- / 5.701	- / 2.621	- / -	- / -	- / -	- / -
P-5	E36409 / CTG, 84mm Gun, HE programmable, CARLGSTF (MAAWS)	P-5a, P-21			- / -	- / -	- / 9.415	- / 10.676	- / -	- / 10.676
P-5	E36901 / ROCKET, 21mm Subcaliber Practice Trainer, f/SLM [HA21]		A		- / 10.154	- / 1.960	- / -	- / 2.058	- / -	- / 2.058
P-5	E88401 / MUNITION, 83mm Bunker Defeat(BDM), Rkt&Lnchr, M141 [HA08]		A		- / 350.373	- / 22.464	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**- / 593.331**	**- / 65.113**	**- / 17.384**	**- / 18.159**	**- / -**	**- / 18.159**

*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 2023 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 2023 Total Base dollars in the amount of $18.159 million supports the procurement of five Shoulder Launched Munitions items.

(E36101) Launcher and Cartridge 84MM M136A1 (AT4CS-RS) - This is a training standard item used in both training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goal. FY 2023 Base procurement dollars in the amount of $0.767 million supports the procurement of 76 Rounds.
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 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base dollars in the amount of $0.181 million supports the COCOM requirement for procurement of 57,341 rounds to deter potential adversaries and support European Deterrence Initiative.
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 goals.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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

(E36405) CTG, Gun, HE 441D, 84MM CARL GUSTAF (MAAWS) - This is a training standard item used in both training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $4.447 million supports the procurement of 1,431 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 goals.
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 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $10.676 million supports the procurement of 4,521 Rounds.
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 goals. FY 2023 Base procurement dollars in the amount of $2.058 million supports the procurement of 10,976 Rounds.
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 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.
Type Classification Date: 2008

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	205.715	9.877	3.936	0.767	-	0.767
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	205.715	9.877	3.936	0.767	-	0.767
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**205.715**	**9.877**	**3.936**	**0.767**	**-**	**0.767**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	7,208.32	27,475	198.049	2,685.24	2,959	7.946	2,806.08	1,286	3.609	5,435.83	76	0.413	-	-	-	5,435.83	76	0.413
Subtotal: Recurring Cost	-	-	*198.049*	-	-	*7.946*	-	-	*3.609*	-	-	*0.413*	-	-	-	-	-	*0.413*
Subtotal: Hardware Cost	**-**	**-**	***198.049***	**-**	**-**	***7.946***	**-**	**-**	***3.609***	**-**	**-**	***0.413***	**-**	**-**	**-**	**-**	**-**	***0.413***
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	-	-	7.258	-	-	1.931	-	-	0.327	-	-	0.354	-	-	-	-	-	0.354
Subtotal: Support - Production Engineering Cost	**-**	**-**	***7.258***	**-**	**-**	***1.931***	**-**	**-**	***0.327***	**-**	**-**	***0.354***	**-**	**-**	**-**	**-**	**-**	***0.354***
Gross/Weapon System Cost	**-**	**-**	**205.715**	**-**	**-**	**9.877**	**-**	**-**	**3.936**	**-**	**-**	**0.767**	**-**	**-**	**-**	**-**	**-**	**0.767**

Remarks:

Exhibit P-5, Cost Analysis: PB 2023 Army		**Date:** April 2022
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:**	

FY 2023 unit cost increase due to lower quantity hardware buy. Quantity puts hardware award in the lowest range of pricing matrix.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1.176	0.176	0.002	0.181	-	0.181
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1.176	0.176	0.002	0.181	-	0.181
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1.176**	**0.176**	**0.002**	**0.181**	**-**	**0.181**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	17.91	65,671	1.176	2.56	51,200	0.131	-	-	-	2.81	57,341	0.161	-	-	-	2.81	57,341	0.161
Subtotal: Recurring Cost	-	-	*1.176*	-	-	*0.131*	-	-	-	-	-	*0.161*	-	-	-	-	-	*0.161*
Subtotal: Hardware Cost	**-**	**-**	***1.176***	**-**	**-**	***0.131***	**-**	**-**	**-**	**-**	**-**	***0.161***	**-**	**-**	**-**	**-**	**-**	***0.161***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	0.045	-	-	0.002	-	-	0.020	-	-	-	-	-	0.020
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	***0.045***	**-**	**-**	***0.002***	**-**	**-**	***0.020***	**-**	**-**	**-**	**-**	**-**	***0.020***
Gross/Weapon System Cost	**-**	**-**	**1.176**	**-**	**-**	**0.176**	**-**	**-**	**0.002**	**-**	**-**	**0.181**	**-**	**-**	**-**	**-**	**-**	**0.181**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	10.817	16.988	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10.817	16.988	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10.817**	**16.988**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	4,265.46	2,160	9.213	1,880.33	8,735	16.425	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*9.213*	-	-	*16.425*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***9.213***	**-**	**-**	***16.425***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.170	-	-	0.058	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.170***	**-**	**-**	***0.058***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	1.434	-	-	0.505	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.434***	**-**	**-**	***0.505***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**10.817**	**-**	**-**	**16.988**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	9.395	11.027	4.031	4.477	-	4.477
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	9.395	11.027	4.031	4.477	-	4.477
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**9.395**	**11.027**	**4.031**	**4.477**	**-**	**4.477**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	2,402.36	3,341	8.026	2,496.83	4,361	10.889	2,609.19	1,394	3.637	2,739.65	1,431	3.920	-	-	-	2,739.65	1,431	3.920
Subtotal: Recurring Cost	-	-	*8.026*	-	-	*10.889*	-	-	*3.637*	-	-	*3.920*	-	-	-	-	-	*3.920*
Subtotal: Hardware Cost	**-**	**-**	***8.026***	**-**	**-**	***10.889***	**-**	**-**	***3.637***	**-**	**-**	***3.920***	**-**	**-**	**-**	**-**	**-**	***3.920***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.184	-	-	0.024	-	-	0.060	-	-	0.063	-	-	-	-	-	0.063
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.184***	**-**	**-**	***0.024***	**-**	**-**	***0.060***	**-**	**-**	***0.063***	**-**	**-**	**-**	**-**	**-**	***0.063***
Support - Production Engineering Cost																		
Production Engineering	-	-	1.185	-	-	0.114	-	-	0.334	-	-	0.494	-	-	-	-	-	0.494
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.185***	**-**	**-**	***0.114***	**-**	**-**	***0.334***	**-**	**-**	***0.494***	**-**	**-**	**-**	**-**	**-**	***0.494***
Gross/Weapon System Cost	**-**	**-**	**9.395**	**-**	**-**	**11.027**	**-**	**-**	**4.031**	**-**	**-**	**4.477**	**-**	**-**	**-**	**-**	**-**	**4.477**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	5.701	2.621	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5.701	2.621	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5.701**	**2.621**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	499.58	8,951	4.472	479.71	5,300	2.542	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*4.472*	-	-	*2.542*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***4.472***	**-**	**-**	***2.542***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.073	-	-	0.036	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.073***	**-**	**-**	***0.036***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	1.157	-	-	0.043	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.157***	**-**	**-**	***0.043***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**5.701**	**-**	**-**	**2.621**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	9.415	10.676	-	10.676
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	9.415	10.676	-	10.676
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**9.415**	**10.676**	**-**	**10.676**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	4,521	10.525	-	-	-	2,328.00	4,521	10.525
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*9.265*	-	-	*10.525*	-	-	-	-	-	*10.525*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***9.265***	**-**	**-**	***10.525***	**-**	**-**	**-**	**-**	**-**	***10.525***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	0.021	-	-	0.021	-	-	-	-	-	0.021
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.021***	**-**	**-**	***0.021***	**-**	**-**	**-**	**-**	**-**	***0.021***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.129	-	-	0.130	-	-	-	-	-	0.130
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.129***	**-**	**-**	***0.130***	**-**	**-**	**-**	**-**	**-**	***0.130***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**9.415**	**-**	**-**	**10.676**	**-**	**-**	**-**	**-**	**-**	**10.676**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
Complete Round(†)		2022	SAAB DYNAMICS AB / KARLSKOGA, SWEDEN	Option / FFP	Picatinny Arsenal, NJ	Mar 2022	Sep 2023	3,980	2,328.00	Y		
Complete Round(†)		2023	SAAB DYNAMICS AB / KARLSKOGA, SWEDEN	Option / FFP	PIcatinny Arsenal, NJ	Mar 2023	Sep 2024	4,521	2,328.00	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	3,980	0	3,980						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,980	0
	1	2023	ARMY	4,521	0	4,521																		A -	-	-	-	-	-	-	4,521
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Each)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	3,980	3,980	0																									0
	1	2023	ARMY	4,521	0	4,521	-	-	-	-	-	-	-	-	-	-	-	4,521													0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	10.154	1.960	-	2.058	-	2.058
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10.154	1.960	-	2.058	-	2.058
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10.154**	**1.960**	**-**	**2.058**	**-**	**2.058**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	271.97	33,848	9.206	161.93	10,934	1.771	-	-	-	167.70	10,976	1.841	-	-	-	167.70	10,976	1.841
Subtotal: Recurring Cost	-	-	*9.206*	-	-	*1.771*	-	-	-	-	-	*1.841*	-	-	-	-	-	*1.841*
Subtotal: Hardware Cost	**-**	**-**	***9.206***	**-**	**-**	***1.771***	**-**	**-**	**-**	**-**	**-**	***1.841***	**-**	**-**	**-**	**-**	**-**	***1.841***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.948	-	-	0.189	-	-	-	-	-	0.217	-	-	-	-	-	0.217
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.948***	**-**	**-**	***0.189***	**-**	**-**	**-**	**-**	**-**	***0.217***	**-**	**-**	**-**	**-**	**-**	***0.217***
Gross/Weapon System Cost	**-**	**-**	**10.154**	**-**	**-**	**1.960**	**-**	**-**	**-**	**-**	**-**	**2.058**	**-**	**-**	**-**	**-**	**-**	**2.058**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	350.373	22.464	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	350.373	22.464	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**350.373**	**22.464**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)	40,689.45	8,516	346.511	20,439.00	1,024	20.930	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*346.511*	-	-	*20.930*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***346.511***	**-**	**-**	***20.930***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	3.862	-	-	1.534	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.862***	**-**	**-**	***1.534***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**350.373**	**-**	**-**	**22.464**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,104.091	159.795	117.536	171.697	-	171.697	64.937	73.261	96.162	76.532	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,104.091	159.795	117.536	171.697	-	171.697	64.937	73.261	96.162	76.532	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,104.091**	**159.795**	**117.536**	**171.697**	**-**	**171.697**	**64.937**	**73.261**	**96.162**	**76.532**	**Continuing**	**Continuing**
(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 Rockets and Small Guided Munitions 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 ensure 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided	P-5a, P-21			- / 616.511	- / 151.158	- / 106.971	- / 160.563	- / -	- / 160.563
P-5	E37413 / Aviation Rocket Procurement, Guided	P-5a, P-21			- / 487.580	- / 8.637	- / 10.565	- / 11.134	- / -	- / 11.134
P-40	**Total Gross/Weapon System Cost**				**- / 1,104.091**	**- / 159.795**	**- / 117.536**	**- / 171.697**	**- / -**	**- / 171.697**

*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 2023 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 2023 Hydra-70 Base funding of $139.299M will procure 60,514 unguided Hydra-70 Rockets and 0 guided Hydra-70 Rockets.

FY 2023 combat expenses in support of Operation Enduring Sentinel and Operation Inherent Resolve in the amount of $32.398 million will procure 9,589 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 Hydra-70 rockets, and/or address safety, reliability, affordability, and /or obsolescence.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	616.511	151.158	106.971	160.563	-	160.563
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	616.511	151.158	106.971	160.563	-	160.563
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**616.511**	**151.158**	**106.971**	**160.563**	**-**	**160.563**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	1,017.19	491,147	499.590	890.22	123,680	110.102	1,093.44	46,212	50.530	1,026.81	70,103	71.982	-	-	-	1,026.81	70,103	71.982
Radford Army Ammunition Plant (AAP) Industrial Facilities	-	-	-	-	-	29.506	-	-	32.522	-	-	64.144	-	-	-	-	-	64.144
Engineering Services	-	-	4.058	-	-	-	-	-	2.724	-	-	2.819	-	-	-	-	-	2.819
Subtotal: Recurring Cost	-	-	*503.648*	-	-	*139.608*	-	-	*85.777*	-	-	*138.946*	-	-	-	-	-	*138.946*
Subtotal: Flyaway Cost	**-**	**-**	***503.648***	**-**	**-**	***139.608***	**-**	**-**	***85.777***	**-**	**-**	***138.946***	**-**	**-**	**-**	**-**	**-**	***138.946***
Support - Industrial Facilities Cost																		
Radford Army Ammunition Plant (AAP)	-	-	62.367	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Industrial Facilities Cost	**-**	**-**	***62.367***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	34.662	-	-	5.702	-	-	10.845	-	-	11.061	-	-	-	-	-	11.061
Subtotal: Support - Production Engineering Cost	**-**	**-**	***34.662***	**-**	**-**	***5.702***	**-**	**-**	***10.845***	**-**	**-**	***11.061***	**-**	**-**	**-**	**-**	**-**	***11.061***
Support - Program Management Cost																		
Government Management	-	-	15.833	-	-	5.847	-	-	10.349	-	-	10.556	-	-	-	-	-	10.556

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Program Management Cost	-	-	***15.833***	-	-	***5.847***	-	-	***10.349***	-	-	***10.556***	-	-	-	-	-	***10.556***
Gross/Weapon System Cost	-	-	**616.511**	-	-	**151.158**	-	-	**106.971**	-	-	**160.563**	-	-	-	-	-	**160.563**

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.

The estimated unguided hardware unit price for FY 2022 and beyond is based on a combined procurement of US Army, other services and FMS quantities of 100,000 unguided rockets per year which is the Minimum Sustainment Rate (MSR).

Funding for recurring costs at Radford Army Ammunition Plant increased from FY 2022 to FY 2023 due to procurement being at minimum sustainment rate versus economic ordering quantity.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
Complete Round(†)		2021	General Dynamics / Williston, VT	C / FFP	Redstone Arsenal, AL	Apr 2021	Feb 2023	123,680	890.22	Y		Aug 2018
Complete Round(†)		2022	General Dynamics / Williston, VT	C / FFP	Redstone Arsenal, AL	Jun 2022	Dec 2023	46,212	1,093.44	Y		Aug 2018
Complete Round(†)		2023	General Dynamics / Williston, VT	C / FFP	Redstone Arsenal, AL	Mar 2023	Sep 2024	70,103	1,026.81	Y		Aug 2018

(†) indicates the presence of a P-21

Remarks:
- QTY EA for delivery schedule for the P-5a.
- Contractor minimum sustainment rate for the total of all variants is 100,000 rockets annually.
- The Aviation Rockets and Small Guided Munitions Product Office is the executive procurement agent for all services and Foreign Military customers, for all variants of aviation rockets.
- FY 2020 new contract awarded 29 May 2020. New contract is base and 4 option years (FY 2020-FY 2024).
- Other services and FMS customers are shown on the P-21 delivery schedule.

Exhibit P-21, Production Schedule: PB 2023 Army | **Date:** April 2022

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 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 491147																															
	1	2021	AF (‡)	1.323	.000	1.323							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.323
	1	2021	ARMY	123.680	.000	123.680							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	123.680
	1	2021	FMS (‡)	16.750	.000	16.750							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.750
	1	2021	NAVY (‡)	33.541	.000	33.541							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33.541
	1	**2021**	**Total**	**175.294**	**.000**	**175.294**							**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**175.294**
	1	2022	AF (‡)	19.214	.000	19.214																					A -	-	-	-	19.214
	1	2022	ARMY	46.212	.000	46.212																					A -	-	-	-	46.212
	1	2022	NAVY (‡)	45.123	.000	45.123																					A -	-	-	-	45.123
	1	**2022**	**Total**	**110.549**	**.000**	**110.549**																					**-**	**-**	**-**	**-**	**110.549**
	1	2023	AF (‡)	6.719	.000	6.719																									6.719
	1	2023	ARMY	70.103	.000	70.103																									70.103
	1	2023	NAVY (‡)	39.034	.000	39.034																									39.034
	1	**2023**	**Total**	**115.856**	**.000**	**115.856**																									**115.856**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army | **Date:** April 2022

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 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 491147																															
	1	2021	AF (‡)	1.323	.000	1.323	-	-	-	1.323	-	-	-	-	-	-	-	-	-	-	-	-	-								.000
	1	2021	ARMY	123.680	.000	123.680	-	-	-	-	.042	-	-	7.392	1.980	20.640	24.660	20.640	24.684	11.082	4.020	-	8.540								.000
	1	2021	FMS (‡)	16.750	.000	16.750	-	-	1.126	-	7.008	5.976	-	-	-	-	-	-	2.640	-	-	-	-								.000
	1	2021	NAVY (‡)	33.541	.000	33.541	-	-	-	6.000	-	-	10.000	-	-	6.000	-	-	6.000	-	5.541	-	-								.000
	1	**2021**	**Total**	**175.294**	**.000**	**175.294**	**-**	**-**	**1.126**	**7.323**	**7.050**	**5.976**	**10.000**	**7.392**	**1.980**	**26.640**	**24.660**	**20.640**	**33.324**	**11.082**	**9.561**	**-**	**8.540**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2022	AF (‡)	19.214	.000	19.214	-	-	-	-	-	-	-	-	-	-	-	1.601	1.601	1.601	1.601	1.601	1.601	1.601	1.601	1.601	1.601	1.601	1.603	-	.000
	1	2022	ARMY	46.212	.000	46.212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.851	3.851	3.851	3.851	3.851	3.851	3.851	3.851	3.851	3.851	7.702
	1	2022	NAVY (‡)	45.123	.000	45.123	-	-	-	-	-	-	-	-	-	-	-	3.763	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**	**110.549**	**.000**	**110.549**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.364**	**5.361**	**5.361**	**9.212**	**9.212**	**9.212**	**9.212**	**9.212**	**9.212**	**9.212**	**9.212**	**9.214**	**3.851**	**7.702**
	1	2023	AF (‡)	6.719	.000	6.719						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.360	3.359
	1	2023	ARMY	70.103	.000	70.103						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.842	64.261
	1	2023	NAVY (‡)	39.034	.000	39.034						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.253	35.781
	1	**2023**	**Total**	**115.856**	**.000**	**115.856**						**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**12.455**	**103.401**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 491147																															
	1	2021	AF (‡)	1.323	1.323	.000																									.000
	1	2021	ARMY	123.680	123.680	.000																									.000
	1	2021	FMS (‡)	16.750	16.750	.000																									.000
	1	2021	NAVY (‡)	33.541	33.541	.000																									.000
	1	**2021**	**Total**	**175.294**	**175.294**	**.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2022	AF (‡)	19.214	19.214	.000	-	-																							.000
	1	2022	ARMY	46.212	38.510	7.702	3.851	3.851																							.000
	1	2022	NAVY (‡)	45.123	45.123	.000	-	-																							.000
	1	**2022**	**Total**	**110.549**	**102.847**	**7.702**	**3.851**	**3.851**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2023	AF (‡)	6.719	3.360	3.359	3.359	-	-	-	-	-	-	-	-	-	-														.000
	1	2023	ARMY	70.103	5.842	64.261	5.842	5.842	5.842	5.842	5.842	5.842	5.842	5.842	5.842	5.842	5.841														.000
	1	2023	NAVY (‡)	39.034	3.253	35.781	3.253	3.253	3.253	3.253	3.253	3.253	3.253	3.253	3.253	3.253	3.251														.000
	1	**2023**	**Total**	**115.856**	**12.455**	**103.401**	**12.454**	**9.095**	**9.095**	**9.095**	**9.095**	**9.095**	**9.095**	**9.095**	**9.095**	**9.095**	**9.092**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	330,000	330,000	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 quantities each.

MSR is satisfied by multi-service and FMS 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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	487.580	8.637	10.565	11.134	-	11.134
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	487.580	8.637	10.565	11.134	-	11.134
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**487.580**	**8.637**	**10.565**	**11.134**	**-**	**11.134**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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, Guidance Section(†)	21,983.41	18,742	412.013	23,381.00	240	5.611	24,267.11	377	9.149	24,726.40	377	9.322	-	-	-	24,726.40	377	9.322
Complete Round, Unguided Section	1,075.53	16,173	17.395	2,422.62	240	0.581	3,051.75	377	1.151	3,891.25	377	1.467	-	-	-	3,891.25	377	1.467
Radford Army Ammunition Plant (AAP) - Industrial Facilities	-	-	-	-	-	0.053	-	-	0.265	-	-	0.345	-	-	-	-	-	0.345
Engineering Services	-	-	0.252	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*429.659*	-	-	*6.246*	-	-	*10.565*	-	-	*11.134*	-	-	-	-	-	*11.134*
Subtotal: Flyaway Cost	**-**	**-**	***429.659***	**-**	**-**	***6.246***	**-**	**-**	***10.565***	**-**	**-**	***11.134***	**-**	**-**	**-**	**-**	**-**	***11.134***
Support - Industrial Facilities Cost																		
Radford Army Ammunition Plant (AAP)	-	-	14.130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Acquisition or Modernization	-	-	3.415	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Industrial Facilities Cost	**-**	**-**	***17.545***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	18.655	-	-	2.391	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***18.655***	**-**	**-**	***2.391***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	21.720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	**-**	**-**	***21.720***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**487.580**	**-**	**-**	**8.637**	**-**	**-**	**10.565**	**-**	**-**	**11.134**	**-**	**-**	**-**	**-**	**-**	**11.134**

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.

The estimated unguided hardware unit price for FY 2022 and beyond is based on a combined procurement of US Army, other services and FMS quantities of 100,000 unguided rockets per year which is the Minimum Sustainment Rate (MSR).

Support - Production Engineering Cost and Support - Program Management Cost are captured on E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided line.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
Complete Round, Guidance Section(†)	✓	2021	BAE Systems / Nashua, NH	SS / FFP	Pax River, MD	May 2021	Mar 2023	240	23,381.00	Y		
Complete Round, Guidance Section(†)		2022	BAE Systems / Nashua, NH	SS / FFP	Pax River, MD	May 2022	Apr 2023	377	24,267.11	Y		
Complete Round, Guidance Section(†)		2023	BAE Systems / Nashua, NH	SS / FFP	Pax River, MD	May 2023	Apr 2024	377	24,726.40	Y		

(†) indicates the presence of a P-21

Remarks:
- QTY EA for delivery schedule.
- Contract managed by Navy

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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, Guidance Section																															
Prior Years Deliveries: 18742																															
✓	1	2021	ARMY	240	0	240								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240
	1	2022	ARMY	377	0	377																				A -	-	-	-	-	377
	1	2023	ARMY	377	0	377																									377
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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, Guidance Section																															
Prior Years Deliveries: 18742																															
✓	1	2021	ARMY	240	0	240	-	-	-	-	-	240																			0
	1	2022	ARMY	377	0	377	-	-	-	-	-	-	32	32	32	32	31	31	31	31	31	31	31	32							0
	1	2023	ARMY	377	0	377								A -	-	-	-	-	-	-	-	-	-	-	32	32	32	32	32	32	185
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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, Guidance Section																															
Prior Years Deliveries: 18742																															
✓	1	2021	ARMY	240	240	0																									0
	1	2022	ARMY	377	377	0																									0
	1	2023	ARMY	377	192	185	32	32	32	32	32	25																			0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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 Sustainment 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).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	156.213	8.891	4.597	7.643	-	7.643	6.564	6.558	7.573	7.569	-	205.608
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	156.213	8.891	4.597	7.643	-	7.643	6.564	6.558	7.573	7.569	-	205.608
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**156.213**	**8.891**	**4.597**	**7.643**	**-**	**7.643**	**6.564**	**6.558**	**7.573**	**7.569**	**-**	**205.608**
(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 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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			- / 156.213	- / 8.891	- / 4.597	- / 7.643	- / -	- / 7.643
P-40	**Total Gross/Weapon System Cost**				**- / 156.213**	**- / 8.891**	**- / 4.597**	**- / 7.643**	**- / -**	**- / 7.643**

*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 2023 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 2023 Total Base procurement dollars of $7.643M will be used for procurement of various CAD/PADs that need replacement due to limited shelf life and/or install life. The FY 2023 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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	156.213	8.891	4.597	7.643	-	7.643
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	156.213	8.891	4.597	7.643	-	7.643
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**156.213**	**8.891**	**4.597**	**7.643**	**-**	**7.643**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	923.00	170	0.157	-	-	-	-	-	-	-	-	-	-	-	-
MS83 Shielded Det Cord(†)	755.02	565	0.427	923.00	50	0.046	-	-	-	-	-	-	-	-	-	-	-	-
MS85 Shielded Det Cord(†)	745.96	520	0.388	923.00	170	0.157	-	-	-	-	-	-	-	-	-	-	-	-
MS86 Shielded Det Cord(†)	754.97	566	0.427	923.00	50	0.046	-	-	-	-	-	-	-	-	-	-	-	-
MS87 Shielded Det Cord(†)	754.97	566	0.427	923.00	50	0.046	-	-	-	-	-	-	-	-	-	-	-	-
JN79 Canopy Egress Assembly	9,622.73	132	1.270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JN80 Canopy Egress Assembly	9,622.73	132	1.270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JN81 Canopy Egress Assembly	9,622.73	132	1.270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JN82 Canopy Egress Assembly	9,622.73	132	1.270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
XW55 Delay Initiator	1,251.56	751	0.940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)
MJ21 Impulse Cartridge(†)	340.00	300	0.102	471.00	300	0.141	-	-	-	569.91	200	0.114	-	-	-	569.91	200	0.114
MS94 Window Cutting Assembly(†)	3,020.92	624	1.885	-	-	-	4,071.65	100	0.407	4,753.61	100	0.475	-	-	-	4,753.61	100	0.475
MS95 Window Cutting Assembly(†)	3,040.40	701	2.131	-	-	-	4,071.65	100	0.407	4,753.61	100	0.475	-	-	-	4,753.61	100	0.475
MS96 Window Cutting Assembly(†)	3,059.20	681	2.083	-	-	-	4,071.65	100	0.407	4,753.61	100	0.475	-	-	-	4,753.61	100	0.475
MS97 Window Cutting Assembly(†)	3,114.35	588	1.831	-	-	-	4,071.65	100	0.407	4,753.61	100	0.475	-	-	-	4,753.61	100	0.475
DWEA Initiator Cartridge(†)	798.00	400	0.319	-	-	-	1,098.08	230	0.253	-	-	-	-	-	-	-	-	-
MS91 Canopy Removal FCDC(†)	-	-	-	1,531.66	500	0.766	-	-	-	1,853.31	100	0.185	-	-	-	1,853.31	100	0.185
MS92 Canopy Removal FCDC(†)	1,040.00	450	0.468	1,579.90	500	0.790	-	-	-	1,911.68	100	0.191	-	-	-	1,911.68	100	0.191
JM96 Chinook Impulse Cartridge(†)	565.56	378	0.214	1,039.89	308	0.320	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MT06 Initiator JAU-59A(†)	-	-	-	1,482.00	480	0.711	1,331.00	125	0.166	1,793.22	125	0.224	-	-	-	1,793.22	125	0.224
MT20 Ctg Aircraft Fire Extinguisher(†)	-	-	-	-	-	-	580.80	200	0.116	638.88	200	0.128	-	-	-	638.88	200	0.128
WB53 Ctg Aircraft Fire Extinguisher(†)	-	-	-	368.00	800	0.294	413.00	800	0.330	413.00	770	0.318	-	-	-	413.00	770	0.318
MD65 Release Cartridge(†)	18.55	1,000	0.019	-	-	-	-	-	-	21.63	700	0.015	-	-	-	21.63	700	0.015
SP02 TLX Line(†)	-	-	-	936.89	196	0.184	-	-	-	1,247.00	180	0.224	-	-	-	1,247.00	180	0.224
SP03 TLX Line(†)	-	-	-	936.89	196	0.184	-	-	-	1,247.00	180	0.224	-	-	-	1,247.00	180	0.224
Subtotal: Recurring Cost	-	-	*17.853*	-	-	*3.843*	-	-	*2.782*	-	-	*3.526*	-	-	-	-	-	*3.526*
Non Recurring Cost																		
Prior Years (Multiple DODICs)	-	-	132.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)
MJ20/MJ21 Decoupling Project	-	-	0.147	-	-	0.150	-	-	0.150	-	-	-	-	-	-	-	-	-
MD66 PIP for JM92	-	-	-	-	-	0.085	-	-	0.127	-	-	0.025	-	-	-	-	-	0.025
JN79-82 Startup Costs	-	-	1.142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UEES PIP Procurements	-	-	1.943	-	-	-	-	-	-	-	-	2.393	-	-	-	-	-	2.393
JM96 & MJ20 Fixtures	-	-	-	-	-	0.075	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*135.482*	-	-	*0.310*	-	-	*0.277*	-	-	*2.418*	-	-	-	-	-	*2.418*
Subtotal: Hardware Cost	**-**	**-**	***153.335***	**-**	**-**	***4.153***	**-**	**-**	***3.059***	**-**	**-**	***5.944***	**-**	**-**	**-**	**-**	**-**	***5.944***
Support - Congressional Adjustments Cost																		
Congressional Rescission	-	-	-	-	-	3.466	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Congressional Adjustments Cost	**-**	**-**	**-**	**-**	**-**	***3.466***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Hardware Analysis Cost																		
Hardware Analysis	-	-	0.040	-	-	0.188	-	-	0.082	-	-	0.235	-	-	-	-	-	0.235
Subtotal: Support - Hardware Analysis Cost	**-**	**-**	***0.040***	**-**	**-**	***0.188***	**-**	**-**	***0.082***	**-**	**-**	***0.235***	**-**	**-**	**-**	**-**	**-**	***0.235***
Support - Production Engineering Cost																		
Production Engineering	-	-	2.838	-	-	1.085	-	-	1.456	-	-	1.464	-	-	-	-	-	1.464
Subtotal: Support - Production Engineering Cost	**-**	**-**	***2.838***	**-**	**-**	***1.085***	**-**	**-**	***1.456***	**-**	**-**	***1.464***	**-**	**-**	**-**	**-**	**-**	***1.464***
Gross/Weapon System Cost	**-**	**-**	**156.213**	**-**	**-**	**8.891**	**-**	**-**	**4.597**	**-**	**-**	**7.643**	**-**	**-**	**-**	**-**	**-**	**7.643**

Remarks:
All CAD/PADs requirements 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) UEES PIP Procurements - Funding formally for Underwater Emergency Egress System procurements
2) FY 2021 Hardware Analysis are assessed on two different CAD/PAD end items.
3) FY 2022 Hardware Analysis is assessed on one CAD/PAD end item.
4) FY 2023 Hardware Analysis are assessed on three different CAD/PAD items.
5) Production Engineering funding provided to Naval Surface Warfare Center - Indian Head Explosive Ordinance Disposal Technology Division.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
MS82 Shielded Det Cord		2021	UTC Aerospace Systems / Fairfield, CA	C / FFP	NAVSUP	Sep 2021	Sep 2022	170	923.00	Y		
MS83 Shielded Det Cord		2021	UTC Aerospace Systems / Fairfield, CA	C / FFP	NAVSUP	Sep 2021	Sep 2022	50	923.00	Y		
MS85 Shielded Det Cord		2021	UTC Aerospace Systems / Fairfield, CA	C / FFP	NAVSUP	Sep 2021	Sep 2022	170	923.00	Y		
MS86 Shielded Det Cord		2021	UTC Aerospace Systems / Fairfield, CA	C / FFP	NAVSUP	Sep 2021	Sep 2022	50	923.00	Y		
MS87 Shielded Det Cord		2021	UTC Aerospace Systems / Fairfield, CA	C / FFP	NAVSUP	Sep 2021	Sep 2022	50	923.00	Y		
MJ21 Impulse Cartridge		2021	Pacific Scientic / Chandler, AZ	C / FFP	NAVSUP	May 2021	May 2022	300	471.00	Y		
MJ21 Impulse Cartridge		2023	TBD / TBD	C / FFP	NAVSUP	Mar 2023	Mar 2024	200	569.91	Y		
MS94 Window Cutting Assembly		2022	TBD / TBD	C / IDIQ	NAVSUP	May 2022	May 2023	100	4,071.65	Y		
MS94 Window Cutting Assembly		2023	TBD / TBD	C / IDIQ	NAVSUP	Mar 2023	Mar 2024	100	4,753.61	Y		
MS95 Window Cutting Assembly		2022	TBD / TBD	C / IDIQ	NAVSUP	May 2022	May 2023	100	4,071.65	Y		
MS95 Window Cutting Assembly		2023	TBD / TBD	C / IDIQ	NAVSUP	Mar 2023	Mar 2024	100	4,753.61	Y		
MS96 Window Cutting Assembly		2022	TBD / TBD	C / IDIQ	NAVSUP	May 2022	May 2023	100	4,071.65	Y		
MS96 Window Cutting Assembly		2023	TBD / TBD	C / IDIQ	NAVSUP	Mar 2023	Mar 2024	100	4,753.61	Y		
MS97 Window Cutting Assembly		2022	TBD / TBD	C / IDIQ	NAVSUP	May 2022	May 2023	100	4,071.65	Y		
MS97 Window Cutting Assembly		2023	TBD / TBD	C / IDIQ	NAVSUP	Mar 2023	Mar 2024	100	4,753.61	Y		
DWEA Initiator Cartridge		2022	TBD / TBD	C / FFP	NAVSUP	May 2022	May 2023	230	1,098.08	Y		
MS91 Canopy Removal FCDC		2021	UTC Aerospace Systems / Fairfield, CA	C / FFP	NAVSUP	Sep 2021	Sep 2022	500	1,531.66	Y		
MS91 Canopy Removal FCDC		2023	TBD / TBD	C / IDIQ	NAVSUP	Mar 2023	Mar 2024	100	1,853.31	Y		
MS92 Canopy Removal FCDC		2021	UTC Aerospace Systems / Fairfield, CA	C / FFP	NAVSUP	Sep 2021	Sep 2022	500	1,579.90	Y		
MS92 Canopy Removal FCDC		2023	TBD / TBD	C / IDIQ	NAVSUP	Mar 2023	Mar 2024	100	1,911.68	Y		
JM96 Chinook Impulse Cartridge		2021	Applied Energy Technology Corp. / Burton, TX	C / FFP	NAVSUP	Jun 2021	Jun 2022	308	1,039.89	N		
JM96 Chinook Impulse Cartridge		2022	TBD / TBD	C / FFP	NAVSUP	May 2022	May 2023	400	718.95	Y		
MT06 Initiator JAU-59A		2021	Pacific Scientic / Hollister, CA	C / FFP	NAVSUP	Sep 2021	Sep 2022	480	1,482.00	Y		
MT06 Initiator JAU-59A		2022	TBD / TBD	C / FFP	NAVSUP	May 2022	May 2023	125	1,331.00	Y		
MT06 Initiator JAU-59A		2023	TBD / TBD	C / IDIQ	NAVSUP	Mar 2023	Mar 2024	125	1,793.22	Y		
MT20 Ctg Aircraft Fire Extinguisher		2022	TBD / TBD	C / FFP	NAVSUP	May 2022	May 2023	200	580.80	Y		
MT20 Ctg Aircraft Fire Extinguisher		2023	TBD / TBD	C / FFP	NAVSUP	Mar 2023	Mar 2024	200	638.88	Y		
WB53 Ctg Aircraft Fire Extinguisher		2021	AMETEK AMERON, LLC / Baldwin Park, CA	C / FFP	NAVSUP	Sep 2021	Sep 2022	800	368.00	Y		

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
WB53 Ctg Aircraft Fire Extinguisher		2022	TBD / TBD	C / FFP	NAVSUP	May 2022	May 2023	800	413.00	Y		
WB53 Ctg Aircraft Fire Extinguisher		2023	TBD / TBD	C / IDIQ	NAVSUP	Mar 2023	Mar 2024	770	413.00	Y		
MD65 Release Cartridge		2023	TBD / TBD	C / FFP	NAVSUP	Mar 2023	Mar 2024	700	21.63	Y		
SP02 TLX Line		2021	UTC Aerospace Systems / Fairfield, CA	C / FFP	NAVSUP	Jun 2021	Jun 2022	196	936.89	Y		
SP02 TLX Line		2023	TBD / TBD	C / FFP	NAVSUP	Mar 2023	Mar 2024	180	1,247.00	Y		
SP03 TLX Line		2021	UTC Aerospace Systems / Fairfield, CA	C / FFP	NAVSUP	Jun 2021	Jun 2022	196	936.89	Y		
SP03 TLX Line		2023	TBD / TBD	C / FFP	NAVSUP	Mar 2023	Mar 2023	180	1,247.00	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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	594.061	55.896	23.468	29.796	-	29.796	28.017	28.221	36.913	36.914	-	833.286
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	594.061	55.896	23.468	29.796	-	29.796	28.017	28.221	36.913	36.914	-	833.286
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**594.061**	**55.896**	**23.468**	**29.796**	**-**	**29.796**	**28.017**	**28.221**	**36.913**	**36.914**	**-**	**833.286**
(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 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.

(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.

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

(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.

(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.

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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		- / 23.272	- / 8.852	- / -	- / -	- / -	- / -
P-5	E50601 / CHARGE, Demo Blk Comp C-4 1-1/4 lb, M112 [M023]		A		- / 236.841	- / 2.109	- / -	- / -	- / -	- / -
P-5	E51300 / CHARGE, Demo Cratering 40 lb [M039]	P-5a	A		- / 40.970	- / 7.962	- / 3.879	- / 8.415	- / -	- / 8.415
P-5	E51400 / CHARGE, Demo, (50ft), Sheet Explosive, M186 [M060]		A		- / 14.587	- / 2.466	- / 3.103	- / 4.082	- / -	- / 4.082
P-5	E52000 / MUNITION, Selectable Lightweight Attack (SLAM), M4 [MP12]	P-5a	A		- / 77.168	- / 15.777	- / -	- / -	- / -	- / -
P-5	E53200 / CHARGE, Demo Shaped 40 lb, M3		A		- / 28.336	- / -	- / -	- / 3.597	- / -	- / 3.597
P-5	E54100 / CORD, Detonating Type 1 [M456]		A		- / 36.016	- / 2.524	- / 2.357	- / 4.150	- / -	- / 4.150
P-5	E60200 / CUTTER, Cartridge Actuated, M21, 2 Second Delay [M500]		A		- / 45.369	- / 4.689	- / 4.352	- / 4.762	- / -	- / 4.762
P-5	E78201 / CHARGE, Demo (38FT) Sheet Explosive, PBXW-202 [M980]	P-5a	A		- / 6.828	- / -	- / 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		- / 5.289	- / 1.501	- / -	- / -	- / -	- / -
P-5	E81307 / IGNITER, Time Fuze and Shock Tube, M81 [MN08]		A		- / 18.188	- / 2.640	- / 2.362	- / 2.656	- / -	- / 2.656
P-5	E99903 / CAP, Blasting Non-Elec, w/500Ft Minitube, M21 [MN88]		A		- / 24.262	- / 2.029	- / 2.196	- / 2.134	- / -	- / 2.134
P-5	E99905 / CAP, Blast, Non-Elec, 1000Ft Minitube, M23 [MN90]		A		- / 28.496	- / 3.425	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**- / 594.061**	**- / 55.896**	**- / 23.468**	**- / 29.796**	**- / -**	**- / 29.796**

*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 2023 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 2023 Total Base dollars in the amount of $29.796 million supports the procurement of seven variants of Demolitions.

(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 2023 funding request.
TYPE CLASSIFICATION DATE: 2006

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

(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 2023 funding request.
TYPE CLASSIFICATION DATE: 1964

(E51300) 40LB Cratering Demolition Block Charge
This is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $8.415 million supports the production of 5,247 Cratering Demolition Block Charges.
TYPE CLASSIFICATION DATE: 1958

(E51400) M186 Demolition Charge
This is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve in accordance with the Army's procurement goals.
FY 2023 Base procurement dollars in the amount of $4.082 million supports the production of 72,858 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 2023 funding request.
TYPE CLASSIFICATION DATE: 2011

(E53200) Charge Demolition Shaped M3
This is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals.
FY 2023 Base procurement dollars in the amount of $3.597 million supports the production of 2,118 Demolition Charges. E53200 is a new start in FY 2023.
TYPE CLASSIFICATION DATE: 1960

(E54100) Detonating Cord, Type 1
This is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals.
FY 2023 Base procurement dollars in the amount of $4.150 million supports the production of 8,170,435 Detonating Cords.
TYPE CLASSIFICATION DATE: 1958

(E60200) Cutter CTG Actuated 2 Sec delay M21
This is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $4.762 million supports the production of 6,184 Cutters.
TYPE CLASSIFICATION DATE: 1980

(E78201) M980 Demolition Charge, 38 foot Sheet Explosive
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. E78201 has no FY 2023 funding request.
TYPE CLASSIFICATION DATE: EOD Item Navy Configured

(E81302) Cap Blasting Non-Electric, W/30 ft Shock Tube is part of the family of Modernized Demolition Initiators.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

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 2023 funding request.
TYPE CLASSIFICATION DATE: April 1996

(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 2023 funding request.
TYPE CLASSIFICATION DATE: April 1996

(E81307) Igniter, Time Fuze and Shock Tube, M81
This is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals.
FY 2023 Base procurement dollars in the amount of $2.656 million supports procurement of 119,961 Igniters.
TYPE CLASSIFICATION DATE: April 1996

(E99903) Blast Cap, Non-Elec: 500Ft Minitube, M21 is part of the family of Modern Demolition Initiators (MDI).
This is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals.
FY 2023 Base procurement dollars in the amount of $2.134 million supports production of 22,947 Blasting Caps.
TYPE CLASSIFICATION DATE: April 1996

(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 2023 funding request.
TYPE CLASSIFICATION DATE: April 1996

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	23.272	8.852	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	23.272	8.852	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**23.272**	**8.852**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	5,715.12	3,569	20.397	2,988.60	1,776	5.308	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*20.397*	-	-	*5.308*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***20.397***	**-**	**-**	***5.308***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.327***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	2.548	-	-	3.544	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***2.548***	**-**	**-**	***3.544***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**23.272**	**-**	**-**	**8.852**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND		2021	MNEMONICS, INC / MELBOURNE, FL	C / IDIQ	PICATINNY ARSENAL, NJ	May 2021	Oct 2023	1,776	2,988.60	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	236.841	2.109	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	236.841	2.109	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**236.841**	**2.109**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)	250.16	54,945	13.745	9.74	51,390	0.501	-	-	-	-	-	-	-	-	-	-	-	-
COMP C-4 CLASS 3	2,963.44	72,527	214.930	16.31	67,835	1.106	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*228.675*	-	-	*1.607*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***228.675***	**-**	**-**	***1.607***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	0.107	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	***0.107***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	8.154	-	-	0.391	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***8.154***	**-**	**-**	***0.391***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.013	-	-	0.004	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.013***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**236.841**	**-**	**-**	**2.109**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	40.970	7.962	3.879	8.415	-	8.415
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	40.970	7.962	3.879	8.415	-	8.415
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**40.970**	**7.962**	**3.879**	**8.415**	**-**	**8.415**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	144,504.11	91	13.150	564.55	5,382	3.038	575.84	2,345	1.350	587.35	5,247	3.082	-	-	-	587.35	5,247	3.082
COMP B TYPE I GRADE A(†)	5,334.08	3,314	17.677	13.80	196,012	2.704	14.07	85,660	1.205	14.35	191,096	2.742	-	-	-	14.35	191,096	2.742
ALUMINUM POWDER FLAKED(†)	1,293.36	962	1.244	3.57	56,888	0.203	3.58	24,861	0.089	3.84	55,461	0.213	-	-	-	3.84	55,461	0.213
COMP D-2(†)	35,183.18	230	8.092	91.00	13,595	1.237	92.82	5,941	0.551	94.54	13,254	1.253	-	-	-	94.54	13,254	1.253
Subtotal: Recurring Cost	-	-	*40.163*	-	-	*7.183*	-	-	*3.196*	-	-	*7.290*	-	-	-	-	-	*7.290*
Subtotal: Hardware Cost	**-**	**-**	***40.163***	**-**	**-**	***7.183***	**-**	**-**	***3.196***	**-**	**-**	***7.290***	**-**	**-**	**-**	**-**	**-**	***7.290***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	0.182	-	-	-	-	-	0.146	-	-	-	-	-	0.146
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	***0.182***	**-**	**-**	**-**	**-**	**-**	***0.146***	**-**	**-**	**-**	**-**	**-**	***0.146***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.806	-	-	0.594	-	-	0.677	-	-	0.972	-	-	-	-	-	0.972
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.806***	**-**	**-**	***0.594***	**-**	**-**	***0.677***	**-**	**-**	***0.972***	**-**	**-**	**-**	**-**	**-**	***0.972***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	0.003	-	-	0.006	-	-	0.006	-	-	-	-	-	0.006

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	-	-	-	*0.003*	-	-	*0.006*	-	-	*0.006*	-	-	-	-	-	*0.006*
Gross/Weapon System Cost	-	-	40.970	-	-	7.962	-	-	3.879	-	-	8.415	-	-	-	-	-	8.415

Remarks:
E51300 / CHARGE, Demo Cratering 40 lb - Production Engineering increased due to changes in planned procurement and reflects the pro-rated share for the Demo Blin support.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2021	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2022	Mar 2024	5,382	564.55	Y		
LOAD, ASSEMBLE, PACK (LAP)		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2022	Mar 2024	2,345	575.84	Y		
LOAD, ASSEMBLE, PACK (LAP)		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Jun 2024	5,247	587.35	Y		
COMP B TYPE I GRADE A		2021	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2021	Jun 2022	196,012	13.80	Y		
COMP B TYPE I GRADE A		2022	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	85,660	14.07	Y		
COMP B TYPE I GRADE A		2023	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	191,096	14.35	Y		
ALUMINUM POWDER FLAKED		2021	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2022	Mar 2024	56,888	3.58	Y		
ALUMINUM POWDER FLAKED		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2022	Mar 2024	24,861	3.58	Y		
ALUMINUM POWDER FLAKED		2023	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	55,461	3.84	Y		
COMP D-2		2021	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2021	Sep 2021	13,595	91.00	Y		
COMP D-2		2022	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2022	Jun 2022	5,941	92.82	Y		
COMP D-2		2023	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	Option / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2023	Jun 2023	13,254	94.54	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	14.587	2.466	3.103	4.082	-	4.082
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	14.587	2.466	3.103	4.082	-	4.082
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**14.587**	**2.466**	**3.103**	**4.082**	**-**	**4.082**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	76.73	166,406	12.768	42.25	49,991	2.112	46.54	54,201	2.523	47.47	72,858	3.459	-	-	-	47.47	72,858	3.459
Subtotal: Recurring Cost	-	-	*12.768*	-	-	*2.112*	-	-	*2.523*	-	-	*3.459*	-	-	-	-	-	*3.459*
Subtotal: Hardware Cost	**-**	**-**	***12.768***	**-**	**-**	***2.112***	**-**	**-**	***2.523***	**-**	**-**	***3.459***	**-**	**-**	**-**	**-**	**-**	***3.459***
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.373	-	-	-	-	-	0.075	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.373***	**-**	**-**	**-**	**-**	**-**	***0.075***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	1.430	-	-	0.351	-	-	0.502	-	-	0.620	-	-	-	-	-	0.620
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.430***	**-**	**-**	***0.351***	**-**	**-**	***0.502***	**-**	**-**	***0.620***	**-**	**-**	**-**	**-**	**-**	***0.620***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.015	-	-	0.003	-	-	0.003	-	-	0.003	-	-	-	-	-	0.003
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.015***	**-**	**-**	***0.003***	**-**	**-**	***0.003***	**-**	**-**	***0.003***	**-**	**-**	**-**	**-**	**-**	***0.003***
Gross/Weapon System Cost	**-**	**-**	**14.587**	**-**	**-**	**2.466**	**-**	**-**	**3.103**	**-**	**-**	**4.082**	**-**	**-**	**-**	**-**	**-**	**4.082**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	77.168	15.777	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	77.168	15.777	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**77.168**	**15.777**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	7,967.37	8,689	69.228	3,717.23	2,880	10.706	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*69.228*	-	-	*10.706*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***69.228***	**-**	**-**	***10.706***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.319	-	-	0.574	-	-	-	-	-	-	-	-	-	-	-	-
First Article Test	-	-	2.003	-	-	0.503	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***2.322***	**-**	**-**	***1.077***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Product Improvement Cost																		
Production Qualification Test	-	-	-	-	-	0.300	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	**-**	**-**	**-**	***0.300***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	5.617	-	-	3.694	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***5.617***	**-**	**-**	***3.694***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**77.168**	**-**	**-**	**15.777**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
Complete Round		2021	NORTHROP GRUMMAN INNOVATION / PLYMOUTH, MN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2021	Jun 2022	2,880	3,717.23	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	28.336	-	-	3.597	-	3.597
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	28.336	-	-	3.597	-	3.597
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**28.336**	**-**	**-**	**3.597**	**-**	**3.597**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	-	-	-	-	1,107.47	2,118	2.346	-	-	-	1,107.47	2,118	2.346
COMP B TYPE I GRADE A	-	-	-	-	-	-	-	-	-	14.35	67,776	0.973	-	-	-	14.35	67,776	0.973
*COMP A-3	-	-	-	-	-	-	-	-	-	2.57	239	0.001	-	-	-	2.57	239	0.001
Subtotal: Recurring Cost	-	-	*28.336*	-	-	-	-	-	-	-	-	*3.319*	-	-	-	-	-	*3.319*
Subtotal: Hardware Cost	**-**	**-**	***28.336***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.319***	**-**	**-**	**-**	**-**	**-**	***3.319***
Support - Government Furnished Materials Cost																		
Government Furnished Materials	-	-	-	-	-	-	-	-	-	-	-	0.001	-	-	-	-	-	0.001
Subtotal: Support - Government Furnished Materials Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.001***	**-**	**-**	**-**	**-**	**-**	***0.001***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	-	-	-	0.278	-	-	-	-	-	0.278
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.278***	**-**	**-**	**-**	**-**	**-**	***0.278***
Gross/Weapon System Cost	**-**	**-**	**28.336**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3.597**	**-**	**-**	**-**	**-**	**-**	**3.597**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	36.016	2.524	2.357	4.150	-	4.150
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	36.016	2.524	2.357	4.150	-	4.150
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**36.016**	**2.524**	**2.357**	**4.150**	**-**	**4.150**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	103,397K	34.225	0.37	5,856,000	2.167	0.42	4,245,422	1.783	0.43	8,170,435	3.513	-	-	-	0.43	8,170,435	3.513
Subtotal: Recurring Cost	-	-	*34.225*	-	-	*2.167*	-	-	*1.783*	-	-	*3.513*	-	-	-	-	-	*3.513*
Subtotal: Hardware Cost	**-**	**-**	***34.225***	**-**	**-**	***2.167***	**-**	**-**	***1.783***	**-**	**-**	***3.513***	**-**	**-**	**-**	**-**	**-**	***3.513***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	-	-	-	0.130	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.130***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	1.733	-	-	0.355	-	-	0.441	-	-	0.635	-	-	-	-	-	0.635
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.733***	**-**	**-**	***0.355***	**-**	**-**	***0.441***	**-**	**-**	***0.635***	**-**	**-**	**-**	**-**	**-**	***0.635***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.011	-	-	0.003	-	-	0.003	-	-	0.002	-	-	-	-	-	0.002
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.011***	**-**	**-**	***0.003***	**-**	**-**	***0.003***	**-**	**-**	***0.002***	**-**	**-**	**-**	**-**	**-**	***0.002***
Gross/Weapon System Cost	**-**	**-**	**36.016**	**-**	**-**	**2.524**	**-**	**-**	**2.357**	**-**	**-**	**4.150**	**-**	**-**	**-**	**-**	**-**	**4.150**

Remarks:
E54100 / CORD, Detonating Type 1 - Production Engineering increased due to changes in planned procurement and reflects the pro-rated share for the Demo Blin support.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	45.369	4.689	4.352	4.762	-	4.762
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	45.369	4.689	4.352	4.762	-	4.762
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**45.369**	**4.689**	**4.352**	**4.762**	**-**	**4.762**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	4,134.45	10,912	45.115	656.85	6,888	4.524	669.42	6,176	4.134	710.55	6,184	4.394	-	-	-	710.55	6,184	4.394
Subtotal: Recurring Cost	-	-	*45.115*	-	-	*4.524*	-	-	*4.134*	-	-	*4.394*	-	-	-	-	-	*4.394*
Subtotal: Hardware Cost	**-**	**-**	***45.115***	**-**	**-**	***4.524***	**-**	**-**	***4.134***	**-**	**-**	***4.394***	**-**	**-**	**-**	**-**	**-**	***4.394***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.254	-	-	0.165	-	-	0.218	-	-	0.368	-	-	-	-	-	0.368
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.254***	**-**	**-**	***0.165***	**-**	**-**	***0.218***	**-**	**-**	***0.368***	**-**	**-**	**-**	**-**	**-**	***0.368***
Gross/Weapon System Cost	**-**	**-**	**45.369**	**-**	**-**	**4.689**	**-**	**-**	**4.352**	**-**	**-**	**4.762**	**-**	**-**	**-**	**-**	**-**	**4.762**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	6.828	-	5.219	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	6.828	-	5.219	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**6.828**	**-**	**5.219**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*6.746*	-	-	-	-	-	*4.955*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***6.746***	**-**	**-**	**-**	**-**	**-**	***4.955***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.081	-	-	-	-	-	0.262	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.081***	**-**	**-**	**-**	**-**	**-**	***0.262***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.001	-	-	-	-	-	0.002	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.001***	**-**	**-**	**-**	**-**	**-**	***0.002***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**6.828**	**-**	**-**	**-**	**-**	**-**	**5.219**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND		2022	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Aug 2022	May 2024	94,058	52.68	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	22.03	68,220	1.503	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*8.219*	-	-	*1.503*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***8.219***	**-**	**-**	***1.503***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.220	-	-	0.419	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.220***	**-**	**-**	***0.419***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**8.439**	**-**	**-**	**1.922**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	5.289	1.501	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5.289	1.501	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5.289**	**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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	108.91	46,273	5.039	23.80	52,960	1.260	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*5.039*	-	-	*1.260*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***5.039***	**-**	**-**	***1.260***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.050***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.200	-	-	0.173	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.200***	**-**	**-**	***0.173***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Government Management	-	-	-	-	-	0.053	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	***0.053***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Study & Analysis Cost																		
Study & Analysis	-	-	-	-	-	0.015	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Study & Analysis Cost	**-**	**-**	**-**	**-**	**-**	***0.015***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

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

Cost Elements	Prior Years			FY 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	5.289	-	-	1.501	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	18.188	2.640	2.362	2.656	-	2.656
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	18.188	2.640	2.362	2.656	-	2.656
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**18.188**	**2.640**	**2.362**	**2.656**	**-**	**2.656**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	8.50	289,612	2.462	15.30	112,573	1.722	15.60	119,961	1.871	-	-	-	15.60	119,961	1.871
Subtotal: Recurring Cost	-	-	*17.076*	-	-	*2.462*	-	-	*1.722*	-	-	*1.871*	-	-	-	-	-	*1.871*
Subtotal: Hardware Cost	**-**	**-**	***17.076***	**-**	**-**	***2.462***	**-**	**-**	***1.722***	**-**	**-**	***1.871***	**-**	**-**	**-**	**-**	**-**	***1.871***
Support - Production Engineering Cost																		
Production Engineering	-	-	1.112	-	-	0.178	-	-	0.639	-	-	0.784	-	-	-	-	-	0.784
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.112***	**-**	**-**	***0.178***	**-**	**-**	***0.639***	**-**	**-**	***0.784***	**-**	**-**	**-**	**-**	**-**	***0.784***
Gross/Weapon System Cost	**-**	**-**	**18.188**	**-**	**-**	**2.640**	**-**	**-**	**2.362**	**-**	**-**	**2.656**	**-**	**-**	**-**	**-**	**-**	**2.656**

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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	24.262	2.029	2.196	2.134	-	2.134
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	24.262	2.029	2.196	2.134	-	2.134
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**24.262**	**2.029**	**2.196**	**2.134**	**-**	**2.134**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	180.94	114,273	20.677	53.63	34,003	1.824	64.28	24,874	1.599	65.55	22,947	1.504	-	-	-	65.55	22,947	1.504
Subtotal: Recurring Cost	-	-	*20.677*	-	-	*1.824*	-	-	*1.599*	-	-	*1.504*	-	-	-	-	-	*1.504*
Subtotal: Hardware Cost	**-**	**-**	***20.677***	**-**	**-**	***1.824***	**-**	**-**	***1.599***	**-**	**-**	***1.504***	**-**	**-**	**-**	**-**	**-**	***1.504***
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.100***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	3.486	-	-	0.205	-	-	0.597	-	-	0.630	-	-	-	-	-	0.630
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.486***	**-**	**-**	***0.205***	**-**	**-**	***0.597***	**-**	**-**	***0.630***	**-**	**-**	**-**	**-**	**-**	***0.630***
Gross/Weapon System Cost	**-**	**-**	**24.262**	**-**	**-**	**2.029**	**-**	**-**	**2.196**	**-**	**-**	**2.134**	**-**	**-**	**-**	**-**	**-**	**2.134**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	28.496	3.425	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	28.496	3.425	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**28.496**	**3.425**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	317.09	79,015	25.055	75.04	42,246	3.170	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*25.055*	-	-	*3.170*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***25.055***	**-**	**-**	***3.170***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.100***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	3.341	-	-	0.255	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.341***	**-**	**-**	***0.255***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**28.496**	**-**	**-**	**3.425**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,082.185	32.931	31.437	36.251	-	36.251	48.380	21.280	10.500	10.496	-	1,273.460
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,082.185	32.931	31.437	36.251	-	36.251	48.380	21.280	10.500	10.496	-	1,273.460
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,082.185**	**32.931**	**31.437**	**36.251**	**-**	**36.251**	**48.380**	**21.280**	**10.500**	**10.496**	**-**	**1,273.460**
(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 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, powered 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

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

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.

(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.

(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.

(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.

(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.

(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.

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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

Exhibits Schedule					Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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, P-21	A		- / 29.161	- / 4.081	- / 3.720	- / 7.410	- / -	- / 7.410
P-5	E31900 / FUZE, Grenade, Hand, Practice, M228 [G878]	P-5a, P-21	A		- / 275.616	- / 4.895	- / 5.708	- / 6.166	- / -	- / 6.166
P-5	E32000 / GRENADE, Hand, Frag, Delay, M67 [G881]		A		- / 345.261	- / 3.536	- / 3.358	- / 5.005	- / -	- / 5.005
P-5	E32200 / GRENADE HAND INCENDIARY M14 [G900]	P-5a	A		- / 18.536	- / 8.593	- / 7.734	- / -	- / -	- / -
P-5	E33010 / GRENADE, HAND OFFENSIVE, M111	P-5a, P-21	A		- / 12.707	- / 5.694	- / 6.218	- / 9.593	- / -	- / 9.593
P-5	E34001 / GRENADE, Hand, Smoke, Green, M18 [G940]		A		- / 175.859	- / -	- / 2.559	- / 2.864	- / -	- / 2.864
P-5	E34002 / GRENADE, Hand, Smoke, Yellow, M18 [G945]		A		- / 103.767	- / -	- / 2.140	- / 2.424	- / -	- / 2.424
P-5	E34003 / GRENADE, Hand, Smoke, Red, M18		A		- / 51.949	- / 2.000	- / -	- / -	- / -	- / -
P-5	E34004 / GRENADE, Hand, Smoke, Violet, M18 [G955]		A		- / 58.592	- / 0.988	- / -	- / 2.789	- / -	- / 2.789
P-5	E35800 / BODY GRENADE HAND PRAC M69 [G811]		A		- / 8.003	- / 1.826	- / -	- / -	- / -	- / -
P-5	E35801 / BODY, PRACTICE HAND GRENADE, OFFENSIVE, M112 [GG38]		A		- / 2.734	- / 1.318	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**- / 1,082.185**	**- / 32.931**	**- / 31.437**	**- / 36.251**	**- / -**	**- / 36.251**

*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 2023 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 2023 Total Base dollars in the amount of $36.251 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 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $7.410 million supports the procurement of 12,535 grenades. Effort is performed at Pine Bluff Arsenal (Pine Bluff, Arkansas).
TYPE CLASSIFICATION DATE: Jul 1992.

(E31900) FUZE GRENADE HAND PRAC M228
This is a training unique item not used in combat. FY 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $6.166 million supports the procurement of 333,457 new fuzes.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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: March 1971

(E32000) GRENADE HAND FRAG DELAY M67
This is a training standard item used in both training and combat. FY 2023 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $5.005 million supports the procurement of 40,259 grenades.
TYPE CLASSIFICATION DATE: March 1970

(E32200) GRENADE HAND INCENDIARY M14
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. E32200 has no FY 2023 funding request.
TYPE CLASSIFICATION DATE: 1942

(E33010) GRENADE HAND OFFENSIVE M111
This is a training standard item used in both training and combat. FY 2023 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $9.593 million supports the procurement of 23,703 grenades.
TYPE CLASSIFICATION DATE: March 2020

(E34001) GRENADE HAND SMOKE GREEN M18
This is a training standard item used in both training and combat. FY 2023 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $2.864 million supports the procurement of 24,117 grenades. Effort is performed at Pine Bluff Arsenal (Pine Bluff, Arkansas).
TYPE CLASSIFICATION DATE: September 1943

(E34002) GRENADE HAND SMOKE YELLOW M18
This is a training standard item used in both training and combat. FY 2023 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $2.424 million supports the procurement of 20,411 grenades. Effort is performed at Pine Bluff Arsenal (Pine Bluff, Arkansas).
TYPE CLASSIFICATION DATE: September 1943

(E34003) GRENADE HAND SMOKE RED M18
This is a training standard item used in both training and combat. The request supports annual training and builds a build a war reserve inventory in accordance with the Army's procurement goal. E34003 has no FY 2023 funding request.
TYPE CLASSIFICATION DATE: September 1943

(E34004) GRENADE HAND SMOKE VIOLET M18
This is a training standard item used in both training and in combat. FY 2023 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $2.789 million supports the procurement of 23,212 grenades. Effort is performed at Pine Bluff Arsenal (Pine Bluff, Arkansas).
TYPE CLASSIFICATION DATE: September 1943

(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 2023 funding request.
TYPE CLASSIFICATION DATE: March 1971

(E35801) GRENADE HAND BODY PRACTICE OFFENSIVE M112

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		**Date:** April 2022
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		

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 2023 funding request.
TYPE CLASSIFICATION DATE: March 2020

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	29.161	4.081	3.720	7.410	-	7.410
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	29.161	4.081	3.720	7.410	-	7.410
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**29.161**	**4.081**	**3.720**	**7.410**	**-**	**7.410**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	564.52	5,028	2.838	480.53	5,624	2.703	471.26	12,535	5.907	-	-	-	471.26	12,535	5.907
Subtotal: Recurring Cost	-	-	*7.529*	-	-	*2.838*	-	-	*2.703*	-	-	*5.907*	-	-	-	-	-	*5.907*
Subtotal: Hardware Cost	**-**	**-**	***7.529***	**-**	**-**	***2.838***	**-**	**-**	***2.703***	**-**	**-**	***5.907***	**-**	**-**	**-**	**-**	**-**	***5.907***
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.195***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	21.429	-	-	1.239	-	-	1.014	-	-	1.499	-	-	-	-	-	1.499
Subtotal: Support - Production Engineering Cost	**-**	**-**	***21.429***	**-**	**-**	***1.239***	**-**	**-**	***1.014***	**-**	**-**	***1.499***	**-**	**-**	**-**	**-**	**-**	***1.499***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.007	-	-	0.003	-	-	0.003	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.007***	**-**	**-**	***0.003***	**-**	**-**	***0.003***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**29.161**	**-**	**-**	**4.081**	**-**	**-**	**3.720**	**-**	**-**	**7.410**	**-**	**-**	**-**	**-**	**-**	**7.410**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

Remarks:
Increase in quantity results in a decreased hardware unit price.

Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Grenades support.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
COMPLETE ROUND(†)		2021	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Mar 2021	Jun 2022	5,028	564.52	Y		
COMPLETE ROUND(†)		2022	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Mar 2022	Jun 2023	5,624	480.53	Y		
COMPLETE ROUND(†)		2023	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Mar 2023	Jun 2024	12,535	471.26	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 30345																															
	1	2021	ARMY	5.028	.000	5.028						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.458	.457	.457	.457	3.199
	1	2022	ARMY	5.624	.000	5.624																		A -	-	-	-	-	-	-	5.624
	1	2023	ARMY	12.535	.000	12.535																									12.535
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 30345																															
	1	2021	ARMY	5.028	1.829	3.199	.457	.457	.457	-	.457	.457	.457	.457																	.000
	1	2022	ARMY	5.624	.000	5.624	-	-	-	-	-	-	-	-	5.000	.624															.000
	1	2023	ARMY	12.535	.000	12.535						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.051	1.044	1.044	1.044	8.352
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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 (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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: 30345																															
	1	2021	ARMY	5.028	5.028	.000																									.000
	1	2022	ARMY	5.624	5.624	.000																									.000
	1	2023	ARMY	12.535	4.183	8.352	1.044	1.044	1.044	1.044	1.044	1.044	1.044	1.044																	.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	4,000	5,000	6,000	8	8	36	44	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	275.616	4.895	5.708	6.166	-	6.166
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	275.616	4.895	5.708	6.166	-	6.166
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**275.616**	**4.895**	**5.708**	**6.166**	**-**	**6.166**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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(†)	7.23	37,025,292	267.656	14.56	167,215	2.435	11.16	230,287	2.570	15.07	333,457	5.025	-	-	-	15.07	333,457	5.025
Subtotal: Recurring Cost	-	-	*267.656*	-	-	*2.435*	-	-	*2.570*	-	-	*5.025*	-	-	-	-	-	*5.025*
Subtotal: Hardware Cost	**-**	**-**	***267.656***	**-**	**-**	***2.435***	**-**	**-**	***2.570***	**-**	**-**	***5.025***	**-**	**-**	**-**	**-**	**-**	***5.025***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.014***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	3.344	-	-	0.778	-	-	0.913	-	-	1.137	-	-	-	-	-	1.137
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.344***	**-**	**-**	***0.778***	**-**	**-**	***0.913***	**-**	**-**	***1.137***	**-**	**-**	**-**	**-**	**-**	***1.137***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.043	-	-	0.004	-	-	0.004	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.043***	**-**	**-**	***0.004***	**-**	**-**	***0.004***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Support - Recapitalization Cost																		
Recapitalization	-	-	4.365	-	-	1.679	-	-	2.221	-	-	-	-	-	-	-	-	-
Subtotal: Support - Recapitalization Cost	**-**	**-**	***4.365***	**-**	**-**	***1.679***	**-**	**-**	***2.221***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Staging and Transportation Cost																		
Staging and Transportation	-	-	0.191	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Staging and Transportation Cost	**-**	**-**	***0.191***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**275.616**	**-**	**-**	**4.895**	**-**	**-**	**5.708**	**-**	**-**	**6.166**	**-**	**-**	**-**	**-**	**-**	**6.166**

Remarks:
FY 2022 hardware unit cost was based on government cost estimate whereas FY 2023 hardware unit cost is based on awarded contract

Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Grenades support.

Recapitalization efforts (performed by Blue Grass Army Depot) end after FY 2022.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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]

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
COMPLETE ROUND(†)		2021	Day & Zimmerman Lone Star LLC / Texarkana, Tx	C / FFP	ROCK ISLAND ARSENAL, IL	Jul 2021	Jan 2023	167,215	14.56	Y		
COMPLETE ROUND(†)		2022	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	230,287	11.16	Y		
COMPLETE ROUND(†)		2023	Day & Zimmerman Lone Star LLC / Texarkana, Tx	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	333,457	15.07	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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]

Cost Elements (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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: 37025292																															
	2	2021	ARMY	167.215	.000	167.215										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	167.215
	1	2022	ARMY	230.287	.000	230.287																		A -	-	-	-	-	-	-	230.287
	2	2023	ARMY	333.457	.000	333.457																									333.457
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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]

Cost Elements (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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: 37025292																															
	2	2021	ARMY	167.215	.000	167.215	-	-	-	167.215																					.000
	1	2022	ARMY	230.287	.000	230.287	-	-	-	-	-	190.000	40.287																		.000
	2	2023	ARMY	333.457	.000	333.457						A -	-	-	-	-	-	-	-	-	-	-	-	333.457							.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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]

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	200,000	280,000	460,000	8	0	0	0	8	6	12	18
2	Day & Zimmerman Lone Star LLC - Texarkana, Tx	200,000	280,000	460,000	8	6	18	24	8	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	345.261	3.536	3.358	5.005	-	5.005
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	345.261	3.536	3.358	5.005	-	5.005
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**345.261**	**3.536**	**3.358**	**5.005**	**-**	**5.005**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	31.99	10,455,046	334.467	46.98	15,182	0.713	45.80	40,958	1.876	67.12	40,259	2.702	-	-	-	67.12	40,259	2.702
Subtotal: Recurring Cost	-	-	*334.467*	-	-	*0.713*	-	-	*1.876*	-	-	*2.702*	-	-	-	-	-	*2.702*
Subtotal: Hardware Cost	**-**	**-**	***334.467***	**-**	**-**	***0.713***	**-**	**-**	***1.876***	**-**	**-**	***2.702***	**-**	**-**	**-**	**-**	**-**	***2.702***
Support - Product Improvement Cost																		
Production Verification Test	-	-	0.709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***0.709***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	9.994	-	-	2.816	-	-	1.476	-	-	2.291	-	-	-	-	-	2.291
Subtotal: Support - Production Engineering Cost	**-**	**-**	***9.994***	**-**	**-**	***2.816***	**-**	**-**	***1.476***	**-**	**-**	***2.291***	**-**	**-**	**-**	**-**	**-**	***2.291***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.084	-	-	0.007	-	-	0.006	-	-	0.012	-	-	-	-	-	0.012
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.084***	**-**	**-**	***0.007***	**-**	**-**	***0.006***	**-**	**-**	***0.012***	**-**	**-**	**-**	**-**	**-**	***0.012***
Gross/Weapon System Cost	**-**	**-**	**345.261**	**-**	**-**	**3.536**	**-**	**-**	**3.358**	**-**	**-**	**5.005**	**-**	**-**	**-**	**-**	**-**	**5.005**

Remarks:

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

FY 2022 hardware unit cost was based on government cost estimate whereas FY 2023 hardware unit cost is based on awarded contract

Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Grenades support.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	18.536	8.593	7.734	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	18.536	8.593	7.734	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**18.536**	**8.593**	**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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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																		
Grenade, Metal Parts Set	0.86	102,023	0.088	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Load, Assemble, Pack (Lap)(†)	50.40	90,281	4.550	137.03	43,965	6.025	135.91	41,792	5.680	-	-	-	-	-	-	-	-	-
FUZE,HAND GRENADE M201(†)	9.64	35,652	0.344	12.83	45,724	0.587	10.24	43,463	0.445	-	-	-	-	-	-	-	-	-
TOP, GREN(†)	-	-	-	1.15	47,482	0.055	1.18	45,135	0.053	-	-	-	-	-	-	-	-	-
BODY, GREN(†)	-	-	-	1.15	47,482	0.055	1.18	45,135	0.053	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*4.982*	-	-	*6.720*	-	-	*6.232*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***4.982***	**-**	**-**	***6.720***	**-**	**-**	***6.232***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Industrial Facilities Cost																		
Equipment Acquisition or Modernization	-	-	-	-	-	0.757	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Industrial Facilities Cost	**-**	**-**	**-**	**-**	**-**	***0.757***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	13.550	-	-	1.111	-	-	1.502	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***13.550***	**-**	**-**	***1.111***	**-**	**-**	***1.502***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	0.004	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.004***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**18.536**	**-**	**-**	**8.593**	**-**	**-**	**7.734**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2021	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Mar 2021	Mar 2022	43,965	137.03	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		2021	Day & Zimmerman Lone Star LLC / Texarkana, Tx	C / FFP	ROCK ISLAND ARSENAL, IL	Jul 2021	Jul 2022	45,724	12.83	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	Mar 2021	Nov 2021	47,482	1.15	Y		
TOP, GREN		2022	TOOL MASTERS INC. / TUSCUMBIA, AL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Nov 2022	45,135	1.18	Y		
BODY, GREN		2021	TOOL MASTERS INC. / TUSCUMBIA, AL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Nov 2021	47,482	1.15	Y		
BODY, GREN		2022	TOOL MASTERS INC. / TUSCUMBIA, AL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Nov 2022	45,135	1.18	Y		

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	12.707	5.694	6.218	9.593	-	9.593
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	12.707	5.694	6.218	9.593	-	9.593
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**12.707**	**5.694**	**6.218**	**9.593**	**-**	**9.593**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	15,238	4.653	311.48	23,703	7.383	-	-	-	311.48	23,703	7.383
Subtotal: Recurring Cost	-	-	*4.053*	-	-	*4.310*	-	-	*4.653*	-	-	*7.383*	-	-	-	-	-	*7.383*
Subtotal: Hardware Cost	**-**	**-**	***4.053***	**-**	**-**	***4.310***	**-**	**-**	***4.653***	**-**	**-**	***7.383***	**-**	**-**	**-**	**-**	**-**	***7.383***
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	-	-	2.206	-	-	-	-	-	2.206
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.441***	**-**	**-**	***1.384***	**-**	**-**	***1.561***	**-**	**-**	***2.206***	**-**	**-**	**-**	**-**	**-**	***2.206***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	0.003	-	-	0.003	-	-	-	-	-	0.003
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.003***	**-**	**-**	***0.003***	**-**	**-**	**-**	**-**	**-**	***0.003***
Gross/Weapon System Cost	**-**	**-**	**12.707**	**-**	**-**	**5.694**	**-**	**-**	**6.218**	**-**	**-**	**9.593**	**-**	**-**	**-**	**-**	**-**	**9.593**

Remarks:
Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Grenades support.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		**Date:** April 2022
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	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
Complete Round - M111(†)		2021	DAY & ZIMMERMANN LONE STAR / TEXARKANA, TX	C / FFP	Rock Island, IL	Jul 2021	Jul 2023	14,396	299.40	N		
Complete Round - M111(†)		2022	DAY & ZIMMERMANN LONE STAR / TEXARKANA, TX	Option / FFP	Rock Island, IL	Mar 2022	Mar 2023	15,238	305.38	N		
Complete Round - M111(†)		2023	DAY & ZIMMERMANN LONE STAR / TEXARKANA, TX	Option / FFP	Rock Island, IL	Mar 2023	Sep 2024	23,703	311.48	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	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 - M111																															
Prior Years Deliveries: 7441																															
	1	2021	ARMY	14.396	.000	14.396										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.396
	1	2022	ARMY	15.238	.000	15.238																		A -	-	-	-	-	-	-	15.238
	1	2023	ARMY	23.703	.000	23.703																									23.703
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	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 - M111																															
Prior Years Deliveries: 7441																															
	1	2021	ARMY	14.396	.000	14.396	-	-	-	-	-	-	-	-	-	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.196				.000
	1	2022	ARMY	15.238	.000	15.238	-	-	-	-	-	3.200	3.200	3.200	3.200	2.438															.000
	1	2023	ARMY	23.703	.000	23.703						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.000	21.703
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Thousands)							Fiscal Year 2025												Fiscal Year 2026												BALANCE
										Calendar Year 2025												Calendar Year 2026									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	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 - M111																															
Prior Years Deliveries: 7441																															
	1	2021	ARMY	14.396	14.396	.000																									.000
	1	2022	ARMY	15.238	15.238	.000																									.000
	1	2023	ARMY	23.703	2.000	21.703	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	1.703														.000
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	DAY & ZIMMERMANN LONE STAR - TEXARKANA, TX	400	1,000	4,519	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	175.859	-	2.559	2.864	-	2.864
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	175.859	-	2.559	2.864	-	2.864
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**175.859**	**-**	**2.559**	**2.864**	**-**	**2.864**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)	42.15	4,045,690	170.514	-	-	-	62.63	23,142	1.449	70.49	24,117	1.700	-	-	-	70.49	24,117	1.700
Grenade, Metal Parts Set	1.91	239,803	0.458	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FUZE,HAND GRENADE M201	8.49	233,810	1.986	-	-	-	10.24	24,067	0.246	13.21	25,081	0.331	-	-	-	13.21	25,081	0.331
TOP, GREN	-	-	-	-	-	-	1.18	24,993	0.029	1.21	26,046	0.032	-	-	-	1.21	26,046	0.032
BODY, GREN	-	-	-	-	-	-	1.18	24,993	0.029	1.22	26,046	0.032	-	-	-	1.22	26,046	0.032
Subtotal: Recurring Cost	-	-	*172.957*	-	-	-	-	-	*1.755*	-	-	*2.095*	-	-	-	-	-	*2.095*
Subtotal: Hardware Cost	**-**	**-**	***172.957***	**-**	**-**	**-**	**-**	**-**	***1.755***	**-**	**-**	***2.095***	**-**	**-**	**-**	**-**	**-**	***2.095***
Support - Production Engineering Cost																		
Production Engineering	-	-	2.662	-	-	-	-	-	0.802	-	-	0.765	-	-	-	-	-	0.765
Subtotal: Support - Production Engineering Cost	**-**	**-**	***2.662***	**-**	**-**	**-**	**-**	**-**	***0.802***	**-**	**-**	***0.765***	**-**	**-**	**-**	**-**	**-**	***0.765***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.027	-	-	-	-	-	0.002	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.027***	**-**	**-**	**-**	**-**	**-**	***0.002***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Support - Study & Analysis Cost																		
Study & Analysis	-	-	0.211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 - Study & Analysis Cost	-	-	***0.211***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	**175.859**	-	-	-	-	-	**2.559**	-	-	**2.864**	-	-	-	-	-	**2.864**

Remarks:
FY 2022 fuze hardware unit cost was based on government cost estimate whereas FY 2023 hardware unit cost is based on awarded contract.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	103.767	-	2.140	2.424	-	2.424
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	103.767	-	2.140	2.424	-	2.424
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**103.767**	**-**	**2.140**	**2.424**	**-**	**2.424**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)	43.45	2,246,650	97.615	-	-	-	69.23	18,139	1.256	70.49	20,411	1.439	-	-	-	70.49	20,411	1.439
Grenade, Metal Parts Set	1.91	285,291	0.545	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FUZE,HAND GRENADE M201	8.52	276,652	2.357	-	-	-	10.24	18,864	0.193	13.21	21,227	0.280	-	-	-	13.21	21,227	0.280
TOP, GREN	-	-	-	-	-	-	1.18	19,589	0.023	1.21	22,044	0.027	-	-	-	1.21	22,044	0.027
BODY, GREN	-	-	-	-	-	-	1.18	19,589	0.023	1.22	22,044	0.027	-	-	-	1.22	22,044	0.027
Subtotal: Recurring Cost	-	-	*100.517*	-	-	-	-	-	*1.495*	-	-	*1.773*	-	-	-	-	-	*1.773*
Subtotal: Hardware Cost	**-**	**-**	***100.517***	**-**	**-**	**-**	**-**	**-**	***1.495***	**-**	**-**	***1.773***	**-**	**-**	**-**	**-**	**-**	***1.773***
Support - Product Improvement Cost																		
Reliability	-	-	0.517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***0.517***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	2.707	-	-	-	-	-	0.641	-	-	0.647	-	-	-	-	-	0.647
Subtotal: Support - Production Engineering Cost	**-**	**-**	***2.707***	**-**	**-**	**-**	**-**	**-**	***0.641***	**-**	**-**	***0.647***	**-**	**-**	**-**	**-**	**-**	***0.647***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.026	-	-	-	-	-	0.004	-	-	0.004	-	-	-	-	-	0.004

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	*0.026*	-	-	-	-	-	*0.004*	-	-	*0.004*	-	-	-	-	-	*0.004*
Gross/Weapon System Cost	-	-	103.767	-	-	-	-	-	2.140	-	-	2.424	-	-	-	-	-	2.424

Remarks:
Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Grenades support.

FY 2022 fuze hardware unit cost was based on government cost estimate whereas FY 2023 hardware unit cost is based on awarded contract.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	64.09	25,025	1.604	-	-	-	-	-	-	-	-	-	-	-	-
GRENADE, METAL PARTS SET	1.90	104,684	0.199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FUZE,HAND GRENADE M201	8.57	100,807	0.864	12.83	26,026	0.334	-	-	-	-	-	-	-	-	-	-	-	-
TOP, GREN	-	-	-	1.15	27,027	0.031	-	-	-	-	-	-	-	-	-	-	-	-
BODY, GREN	-	-	-	1.15	27,027	0.031	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*51.079*	-	-	*2.000*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***51.079***	**-**	**-**	***2.000***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.868	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.868***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.003***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**51.949**	**-**	**-**	**2.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	58.592	0.988	-	2.789	-	2.789
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	58.592	0.988	-	2.789	-	2.789
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**58.592**	**0.988**	**-**	**2.789**	**-**	**2.789**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)	45.26	1,244,887	56.347	63.50	8,840	0.561	-	-	-	71.92	23,212	1.669	-	-	-	71.92	23,212	1.669
Grenade, Metal Parts Set	1.91	100,545	0.192	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FUZE,HAND GRENADE M201	8.47	97,056	0.822	12.83	9,194	0.118	-	-	-	13.21	24,140	0.319	-	-	-	13.21	24,140	0.319
TOP, GREN	-	-	-	1.15	9,547	0.011	-	-	-	1.21	25,068	0.030	-	-	-	1.21	25,068	0.030
BODY, GREN	-	-	-	1.15	9,547	0.011	-	-	-	1.22	25,068	0.031	-	-	-	1.22	25,068	0.031
Subtotal: Recurring Cost	-	-	*57.361*	-	-	*0.701*	-	-	-	-	-	*2.049*	-	-	-	-	-	*2.049*
Subtotal: Hardware Cost	**-**	**-**	***57.361***	**-**	**-**	***0.701***	**-**	**-**	**-**	**-**	**-**	***2.049***	**-**	**-**	**-**	**-**	**-**	***2.049***
Support - Product Improvement Cost																		
Production Verification Test	-	-	0.017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	***0.017***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	1.196	-	-	0.284	-	-	-	-	-	0.740	-	-	-	-	-	0.740
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.196***	**-**	**-**	***0.284***	**-**	**-**	**-**	**-**	**-**	***0.740***	**-**	**-**	**-**	**-**	**-**	***0.740***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.018	-	-	0.003	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	58.592	-	-	0.988	-	-	-	-	-	2.789	-	-	-	-	-	2.789

Remarks:
FY 2022 hardware unit cost was based on government cost estimate whereas FY 2023 hardware unit cost is based on awarded contract

Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Grenades support.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	8.003	1.826	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	8.003	1.826	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**8.003**	**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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	16.61	409,921	6.810	13.00	106,571	1.385	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*6.810*	-	-	*1.385*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***6.810***	**-**	**-**	***1.385***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	1.171	-	-	0.437	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.171***	**-**	**-**	***0.437***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.021	-	-	0.004	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.021***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**8.003**	**-**	**-**	**1.826**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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]
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	354.728	27.036	7.530	13.852	-	13.852	16.384	16.528	7.025	7.026	-	450.109
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	354.728	27.036	7.530	13.852	-	13.852	16.384	16.528	7.025	7.026	-	450.109
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**354.728**	**27.036**	**7.530**	**13.852**	**-**	**13.852**	**16.384**	**16.528**	**7.025**	**7.026**	**-**	**450.109**
(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 Signals, All Types.

(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.

(E46400) Signal, Hand Held Red Star Cluster M158
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. M158 is a red star cluster signal used primarily 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.

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

(E49101) Flare, Aircraft Countermeasure, RF (Passive)
The Flare Aircraft Radio Frequency (RF) expendable countermeasures systems are essential parts for Army aircraft survivability and will be employed with currently fielded countermeasures as a cocktail to provide protection against all threats. These advanced decoys will address deficiencies in Army aircraft protection and the safety of its aircrews against Surface-to-Air Missiles (SAM) systems. This item is Code A, approved for service use.

(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 Radar Frequency and 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.

(E62900) SMOKE POT PRACTICE M8
The M8 Floating 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, particularly at river crossings. 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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	E46400 / Signal, Hand Held Red Star Cluster M158		A		- / 36.540	- / -	- / -	- / 4.594	- / -	- / 4.594
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		- / 149.481	- / 0.300	- / -	- / 0.307	- / -	- / 0.307
P-5	E47000 / Signal, Hand Held Green Star Cluster M125A1 [L314]		A		- / 58.681	- / 5.051	- / -	- / -	- / -	- / -
P-5	E49101 / Flare, Aircraft Countermeasure, RF (Passive)		A		- / -	- / -	- / -	- / 1.036	- / -	- / 1.036
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		- / 59.828	- / 8.459	- / 7.530	- / 7.915	- / -	- / 7.915
P-40	**Total Gross/Weapon System Cost**				**- / 354.728**	**- / 27.036**	**- / 7.530**	**- / 13.852**	**- / -**	**- / 13.852**

*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 2023 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 2023 Total Base dollars in the amount of $13.852 million supports the procurement of four variants of signals.

(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 war reserve inventory in accordance with the Army's procurement goals.
E44600 has no FY 2023 funding request.
TYPE CLASSIFICATION DATE: 1972.

(E46400) Signal, Hand Held Red Star Cluster M158
This is a training standard item used in both training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $4.594 million supports the procurement of 55,868 signals. E46400 is a new start in FY 2023.
TYPE CLASSIFICATION DATE: 1983.

(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 war reserve inventory in accordance with the Army's procurement goals.
E46700 has no FY 2023 funding request.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

TYPE CLASSIFICATION DATE: 1983.

(E46800) Signal, Hand Held White Parachute Flare M127A1
This is a training standard item used in both training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $0.307 million supports the procurement of 3,401 signals.
TYPE CLASSIFICATION DATE: 1983.

(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 war reserve inventory in accordance with the Army's procurement goals.
E47000 has no FY 2023 funding request.
TYPE CLASSIFICATION DATE: 1983.

(E49101) Flare, Aircraft Countermeasure, RF (Passive)
This is a war reserve item used in combat. The FY 2023 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2023 Base procurement dollars in the amount of $1.036 million supports the procurement of 4,780 flares. E49101 is a new start in FY 2023.
TYPE CLASSIFICATION DATE TBD

(E49105) Cartridge, Impulse, BBU-35/B
This is a war reserve item used in combat. The request builds a war reserve inventory in accordance with Army's procurement goals. E49105 has no FY 2023 funding request.
TYPE CLASSIFICATION DATE: May 2008.

(E62900) Smoke Pot Practice M8
This is a training standard item used in training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $7.915 million supports the procurement of 5,106 smoke pots.
TYPE CLASSIFICATION DATE: 1994

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	135.32	54,585	7.386	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*20.987*	-	-	*7.386*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***20.987***	**-**	**-**	***7.386***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.278	-	-	0.344	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.278***	**-**	**-**	***0.344***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
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**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47	**P-1 Line Item Number / Title:** 6038E46900 / Signals, All Types	**Item Number / Title [DODIC]:** E46400 / Signal, Hand Held Red Star Cluster M158
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	36.540	-	-	4.594	-	4.594
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	36.540	-	-	4.594	-	4.594
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**36.540**	**-**	**-**	**4.594**	**-**	**4.594**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)	64.85	457,000	29.636	-	-	-	-	-	-	64.85	55,868	3.623	-	-	-	64.85	55,868	3.623
BOX METAL M548	53.58	19,000	1.018	-	-	-	-	-	-	53.57	2,352	0.126	-	-	-	53.57	2,352	0.126
Subtotal: Recurring Cost	-	-	*30.654*	-	-	-	-	-	-	-	-	*3.749*	-	-	-	-	-	*3.749*
Subtotal: Hardware Cost	**-**	**-**	***30.654***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.749***	**-**	**-**	**-**	**-**	**-**	***3.749***
Support - Production Engineering Cost																		
Production Engineering	-	-	5.766	-	-	-	-	-	-	-	-	0.833	-	-	-	-	-	0.833
Subtotal: Support - Production Engineering Cost	**-**	**-**	***5.766***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.833***	**-**	**-**	**-**	**-**	**-**	***0.833***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.120	-	-	-	-	-	-	-	-	0.012	-	-	-	-	-	0.012
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.120***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.012***	**-**	**-**	**-**	**-**	**-**	***0.012***
Gross/Weapon System Cost	**-**	**-**	**36.540**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.594**	**-**	**-**	**-**	**-**	**-**	**4.594**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	66.62	2,354	0.157	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*22.478*	-	-	*3.807*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***22.478***	**-**	**-**	***3.807***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.402	-	-	0.428	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.402***	**-**	**-**	***0.428***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**22.880**	**-**	**-**	**4.235**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	149.481	0.300	-	0.307	-	0.307
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	149.481	0.300	-	0.307	-	0.307
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**149.481**	**0.300**	**-**	**0.307**	**-**	**0.307**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)	1,231.35	119,957	147.709	58.48	1,080	0.063	-	-	-	71.35	3,401	0.243	-	-	-	71.35	3,401	0.243
Box Metal M548	82.32	5,051	0.416	43.45	45	0.002	-	-	-	53.57	143	0.008	-	-	-	53.57	143	0.008
Subtotal: Recurring Cost	-	-	*148.124*	-	-	*0.065*	-	-	-	-	-	*0.250*	-	-	-	-	-	*0.250*
Subtotal: Hardware Cost	**-**	**-**	***148.124***	**-**	**-**	***0.065***	**-**	**-**	**-**	**-**	**-**	***0.250***	**-**	**-**	**-**	**-**	**-**	***0.250***
Support - Production Engineering Cost																		
Production Engineering	-	-	1.341	-	-	0.231	-	-	-	-	-	0.053	-	-	-	-	-	0.053
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.341***	**-**	**-**	***0.231***	**-**	**-**	**-**	**-**	**-**	***0.053***	**-**	**-**	**-**	**-**	**-**	***0.053***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.016	-	-	0.004	-	-	-	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.016***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	***0.004***
Gross/Weapon System Cost	**-**	**-**	**149.481**	**-**	**-**	**0.300**	**-**	**-**	**-**	**-**	**-**	**0.307**	**-**	**-**	**-**	**-**	**-**	**0.307**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	58.681	5.051	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	58.681	5.051	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**58.681**	**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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)	499.25	114,162	56.995	56.15	78,777	4.423	-	-	-	-	-	-	-	-	-	-	-	-
Box Metal M548	54.11	4,158	0.225	43.45	3,316	0.144	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*57.220*	-	-	*4.567*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***57.220***	**-**	**-**	***4.567***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	1.439	-	-	0.480	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.439***	**-**	**-**	***0.480***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.022	-	-	0.004	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.022***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**58.681**	**-**	**-**	**5.051**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 47	**P-1 Line Item Number / Title:** 6038E46900 / Signals, All Types	**Item Number / Title [DODIC]:** E49101 / Flare, Aircraft Countermeasure, RF (Passive)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	1.036	-	1.036
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	1.036	-	1.036
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**1.036**	**-**	**1.036**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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 FLARE	-	-	-	-	-	-	-	-	-	200.00	4,780	0.956	-	-	-	200.00	4,780	0.956
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.956*	-	-	-	-	-	*0.956*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.956***	**-**	**-**	**-**	**-**	**-**	***0.956***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	-	-	-	0.080	-	-	-	-	-	0.080
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.080***	**-**	**-**	**-**	**-**	**-**	***0.080***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.036**	**-**	**-**	**-**	**-**	**-**	**1.036**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	59.828	8.459	7.530	7.915	-	7.915
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	59.828	8.459	7.530	7.915	-	7.915
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**59.828**	**8.459**	**7.530**	**7.915**	**-**	**7.915**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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)(†)	10,265.33	4,660	47.836	643.96	6,603	4.252	656.84	5,442	3.575	754.03	5,106	3.850	-	-	-	754.03	5,106	3.850
FUZE,SMOKE POT, FLOATING M208(†)	153.38	4,847	0.743	106.56	6,867	0.732	108.70	5,659	0.615	104.57	5,310	0.555	-	-	-	104.57	5,310	0.555
INNER COVER ASSEMBLY(†)	123.84	5,359	0.664	95.53	7,594	0.725	102.48	6,258	0.641	105.56	5,871	0.620	-	-	-	105.56	5,871	0.620
OUTER COVER ASSEMBLY(†)	125.07	5,359	0.670	81.67	7,594	0.620	87.63	6,258	0.548	90.26	5,871	0.530	-	-	-	90.26	5,871	0.530
CONTAINER, USED ON SMOKE POT M8(†)	127.89	5,359	0.685	90.64	7,594	0.688	97.25	6,258	0.609	100.18	5,871	0.588	-	-	-	100.18	5,871	0.588
Subtotal: Recurring Cost	-	-	*50.599*	-	-	*7.018*	-	-	*5.988*	-	-	*6.143*	-	-	-	-	-	*6.143*
Subtotal: Hardware Cost	**-**	**-**	***50.599***	**-**	**-**	***7.018***	**-**	**-**	***5.988***	**-**	**-**	***6.143***	**-**	**-**	**-**	**-**	**-**	***6.143***
Support - Production Engineering Cost																		
Production Engineering	-	-	9.184	-	-	1.437	-	-	1.538	-	-	1.768	-	-	-	-	-	1.768
Subtotal: Support - Production Engineering Cost	**-**	**-**	***9.184***	**-**	**-**	***1.437***	**-**	**-**	***1.538***	**-**	**-**	***1.768***	**-**	**-**	**-**	**-**	**-**	***1.768***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.045	-	-	0.004	-	-	0.004	-	-	0.004	-	-	-	-	-	0.004

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	***0.045***	-	-	***0.004***	-	-	***0.004***	-	-	***0.004***	-	-	-	-	-	***0.004***
Gross/Weapon System Cost	-	-	**59.828**	-	-	**8.459**	-	-	**7.530**	-	-	**7.915**	-	-	-	-	-	**7.915**

Remarks:
Increase in stabilized rate from PBA (Pine Bluff Arsenal) corresponds to an increase in unit cost for LAP.

Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Grenades support.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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)		2021	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Apr 2021	Aug 2022	6,603	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		
LOAD, ASSEMBLE, PACK (LAP)		2023	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Mar 2023	Aug 2024	5,106	754.03	Y		
FUZE,SMOKE POT, FLOATING M208		2021	Day Zimmerman Lone Star LLC / Texarkana, Tx	C / FFP	ROCK ISLAND ARSENAL, IL	Jul 2021	Jul 2022	6,867	106.56	Y		
FUZE,SMOKE POT, FLOATING M208		2022	Day Zimmerman Lone Star LLC / Texarkana, Tx	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2022	Mar 2023	5,659	108.70	Y		
FUZE,SMOKE POT, FLOATING M208		2023	DAY & ZIMMERMANN LONE STAR / TEXARKANA, TX	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Mar 2024	5,310	104.57	Y		
INNER COVER ASSEMBLY		2021	TOOL MASTERS INC. / TUSCUMBIA, AL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Dec 2021	7,594	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		
INNER COVER ASSEMBLY		2023	TOOL MASTERS INC. / TUSCUMBIA, AL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Dec 2023	5,871	105.56	Y		
OUTER COVER ASSEMBLY		2021	TOOL MASTERS INC. / TUSCUMBIA, AL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Dec 2021	7,594	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		
OUTER COVER ASSEMBLY		2023	TOOL MASTERS INC. / TUSCUMBIA, AL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Dec 2023	5,871	90.26	Y		
CONTAINER, USED ON SMOKE POT M8		2021	TOOL MASTERS INC. / TUSCUMBIA, AL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2021	Dec 2021	7,594	90.64	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		
CONTAINER, USED ON SMOKE POT M8		2023	TOOL MASTERS INC. / TUSCUMBIA, AL	Option / FFP	ROCK ISLAND ARSENAL, IL	Mar 2023	Dec 2023	5,871	100.18	Y		

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	303.499	9.377	7.350	9.350	-	9.350	11.206	11.300	9.692	9.692	-	371.466
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	303.499	9.377	7.350	9.350	-	9.350	11.206	11.300	9.692	9.692	-	371.466
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**303.499**	**9.377**	**7.350**	**9.350**	**-**	**9.350**	**11.206**	**11.300**	**9.692**	**9.692**	**-**	**371.466**
(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 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) M35 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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		- / 134.448	- / 2.968	- / 2.697	- / 3.011	- / -	- / 3.011
P-5	E50200 / SIMULATOR, Hand Grenade, M116A1 [L601]		A		- / 103.356	- / 2.950	- / 1.820	- / 3.136	- / -	- / 3.136
P-5	E70600 / SIMULATOR, Rocket, Antitank GM Lnchd, M22 (ATWESS) [LA77]		A		- / 57.353	- / 2.547	- / -	- / -	- / -	- / -
P-5	E88119 / SIMULATOR, Hostile Fire, M34		A		- / 3.895	- / 0.628	- / 1.362	- / 1.454	- / -	- / 1.454
P-5	E88125 / SIMULATOR, Target Hit, M35 (White Star)		A		- / 4.447	- / 0.284	- / 1.363	- / 1.453	- / -	- / 1.453
P-5	E88404 / SIMULATORS, Non-Standard, Special Effects, f/CTCs [LZ04]		B		- / -	- / -	- / 0.108	- / 0.296	- / -	- / 0.296
P-40	**Total Gross/Weapon System Cost**				**- / 303.499**	**- / 9.377**	**- / 7.350**	**- / 9.350**	**- / -**	**- / 9.350**

*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 2023 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 2023 Total Base dollars in the amount of $9.350 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 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals.
FY 2023 Base procurement dollars in the amount of $3.011 million supports the production of 92,086 Ground Burst Simulators.
TYPE CLASSIFICATION DATE: 1962

E50200 - SIMULATOR HAND GRENADE M116A1
This is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals.
FY 2023 Base procurement dollars in the amount of $3.136 million supports production of 99,400 M116A1 Simulator Hand Grenade.
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 FY 2023 Funding Request.
TYPE CLASSIFICATION DATE: 1984

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

E88119 - M34 HOSTILE FIRE SIMULATOR M34
This is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals.
FY 2023 Base procurement dollars in the amount of $1.454 million supports production of 137,217 simulators.
TYPE CLASSIFICATION DATE: October 2006

E88125 - TARGET HIT (White Star) SIMULATOR M35
This is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals.
FY 2023 Base procurement dollars in the amount of $1.453 million supports production of 137,164 simulators. Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Simulators support.
TYPE CLASSIFICATION DATE: October 2006

E88404 - SIMULATORS, NON STANDARD, SPECIAL EFFECTS FOR CTCS
This is a training unique item not used in combat. The FY 2023 request supports annual training and builds a depot level in accordance with Army's procurement goals.
FY 2023 Base procurement dollars in the amount of $0.296 million supports production of 610 simulators. Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Simulators support.
TYPE CLASSIFICATION DATE: TBD

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	134.448	2.968	2.697	3.011	-	3.011
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	134.448	2.968	2.697	3.011	-	3.011
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**134.448**	**2.968**	**2.697**	**3.011**	**-**	**3.011**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	340.09	386,509	131.449	26.05	84,996	2.214	26.57	83,263	2.212	27.09	92,086	2.495	-	-	-	27.09	92,086	2.495
Subtotal: Recurring Cost	-	-	*131.448*	-	-	*2.214*	-	-	*2.212*	-	-	*2.495*	-	-	-	-	-	*2.495*
Subtotal: Hardware Cost	**-**	**-**	***131.448***	**-**	**-**	***2.214***	**-**	**-**	***2.212***	**-**	**-**	***2.495***	**-**	**-**	**-**	**-**	**-**	***2.495***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	0.150	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	***0.150***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	2.985	-	-	0.600	-	-	0.479	-	-	0.509	-	-	-	-	-	0.509
Subtotal: Support - Production Engineering Cost	**-**	**-**	***2.985***	**-**	**-**	***0.600***	**-**	**-**	***0.479***	**-**	**-**	***0.509***	**-**	**-**	**-**	**-**	**-**	***0.509***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.015	-	-	0.004	-	-	0.005	-	-	0.007	-	-	-	-	-	0.007
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.015***	**-**	**-**	***0.004***	**-**	**-**	***0.005***	**-**	**-**	***0.007***	**-**	**-**	**-**	**-**	**-**	***0.007***
Gross/Weapon System Cost	**-**	**-**	**134.448**	**-**	**-**	**2.968**	**-**	**-**	**2.697**	**-**	**-**	**3.011**	**-**	**-**	**-**	**-**	**-**	**3.011**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	103.356	2.950	1.820	3.136	-	3.136
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	103.356	2.950	1.820	3.136	-	3.136
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**103.356**	**2.950**	**1.820**	**3.136**	**-**	**3.136**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	354.10	279,522	98.978	25.09	96,355	2.418	25.59	50,992	1.305	26.08	99,400	2.592	-	-	-	26.08	99,400	2.592
Subtotal: Recurring Cost	-	-	*98.978*	-	-	*2.418*	-	-	*1.305*	-	-	*2.592*	-	-	-	-	-	*2.592*
Subtotal: Hardware Cost	**-**	**-**	***98.978***	**-**	**-**	***2.418***	**-**	**-**	***1.305***	**-**	**-**	***2.592***	**-**	**-**	**-**	**-**	**-**	***2.592***
Support - Acceptance Testing Cost																		
First Article Test	-	-	0.246	-	-	0.136	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	***0.246***	**-**	**-**	***0.136***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	4.113	-	-	0.392	-	-	0.513	-	-	0.540	-	-	-	-	-	0.540
Subtotal: Support - Production Engineering Cost	**-**	**-**	***4.113***	**-**	**-**	***0.392***	**-**	**-**	***0.513***	**-**	**-**	***0.540***	**-**	**-**	**-**	**-**	**-**	***0.540***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.018	-	-	0.004	-	-	0.003	-	-	0.003	-	-	-	-	-	0.003
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.018***	**-**	**-**	***0.004***	**-**	**-**	***0.003***	**-**	**-**	***0.003***	**-**	**-**	**-**	**-**	**-**	***0.003***
Gross/Weapon System Cost	**-**	**-**	**103.356**	**-**	**-**	**2.950**	**-**	**-**	**1.820**	**-**	**-**	**3.136**	**-**	**-**	**-**	**-**	**-**	**3.136**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	57.353	2.547	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	57.353	2.547	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**57.353**	**2.547**	**-**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	79.60	658,761	52.435	16.88	87,414	1.476	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*52.435*	-	-	*1.476*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***52.435***	**-**	**-**	***1.476***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	4.900	-	-	1.067	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***4.900***	**-**	**-**	***1.067***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.018	-	-	0.004	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.018***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**57.353**	**-**	**-**	**2.547**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	3.895	0.628	1.362	1.454	-	1.454
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3.895	0.628	1.362	1.454	-	1.454
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3.895**	**0.628**	**1.362**	**1.454**	**-**	**1.454**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	42	*.***	6.69	116,516	0.779	7.21	137,217	0.989	-	-	-	7.21	137,217	0.989
Subtotal: Recurring Cost	-	-	*3.895*	-	-	*0.000*	-	-	*0.779*	-	-	*0.989*	-	-	-	-	-	*0.989*
Subtotal: Hardware Cost	**-**	**-**	***3.895***	**-**	**-**	***0.000***	**-**	**-**	***0.779***	**-**	**-**	***0.989***	**-**	**-**	**-**	**-**	**-**	***0.989***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	0.050
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.050***	**-**	**-**	**-**	**-**	**-**	***0.050***
Support - Product Improvement Cost																		
Reliability	-	-	-	-	-	0.365	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Product Improvement Cost	**-**	**-**	**-**	**-**	**-**	***0.365***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	0.263	-	-	0.582	-	-	0.415	-	-	-	-	-	0.415
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	***0.263***	**-**	**-**	***0.582***	**-**	**-**	***0.415***	**-**	**-**	**-**	**-**	**-**	***0.415***
Gross/Weapon System Cost	**-**	**-**	**3.895**	**-**	**-**	**0.628**	**-**	**-**	**1.362**	**-**	**-**	**1.454**	**-**	**-**	**-**	**-**	**-**	**1.454**

Remarks:
FY 2023 unit cost reflects pricing data from most current estimates.

*.*** represents funding below $1,000.00

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	4.447	0.284	1.363	1.453	-	1.453
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	4.447	0.284	1.363	1.453	-	1.453
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**4.447**	**0.284**	**1.363**	**1.453**	**-**	**1.453**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	3,263	0.021	6.69	179,840	1.203	7.21	137,164	0.989	-	-	-	7.21	137,164	0.989
Subtotal: Recurring Cost	-	-	*4.447*	-	-	*0.021*	-	-	*1.203*	-	-	*0.989*	-	-	-	-	-	*0.989*
Subtotal: Hardware Cost	**-**	**-**	***4.447***	**-**	**-**	***0.021***	**-**	**-**	***1.203***	**-**	**-**	***0.989***	**-**	**-**	**-**	**-**	**-**	***0.989***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	0.050
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.050***	**-**	**-**	**-**	**-**	**-**	***0.050***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	0.263	-	-	0.159	-	-	0.414	-	-	-	-	-	0.414
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	***0.263***	**-**	**-**	***0.159***	**-**	**-**	***0.414***	**-**	**-**	**-**	**-**	**-**	***0.414***
Gross/Weapon System Cost	**-**	**-**	**4.447**	**-**	**-**	**0.284**	**-**	**-**	**1.363**	**-**	**-**	**1.453**	**-**	**-**	**-**	**-**	**-**	**1.453**

Remarks:
FY 2023 unit cost reflects pricing data from most current estimates. Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Simulators.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	0.108	0.296	-	0.296
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	0.108	0.296	-	0.296
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**0.108**	**0.296**	**-**	**0.296**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	-	-	-	-	16.06	6,385	0.103	16.38	610	0.010	-	-	-	16.38	610	0.010
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*0.103*	-	-	*0.010*	-	-	-	-	-	*0.010*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.103***	**-**	**-**	***0.010***	**-**	**-**	**-**	**-**	**-**	***0.010***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.005	-	-	0.286	-	-	-	-	-	0.286
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.005***	**-**	**-**	***0.286***	**-**	**-**	**-**	**-**	**-**	***0.286***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.108**	**-**	**-**	**0.296**	**-**	**-**	**-**	**-**	**-**	**0.296**

Remarks:
Production Engineering increased due to change in planned procurement and reflects the pro-rated share for the family of Simulators.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	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**
(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 Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-

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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	17.755	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**17.755**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
The FY 2022 Budget supports the reactive armor tile purchase of tiles for the Armored Multi-Purpose Vehicle (AMPV).

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

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.

FY 2023 - There is no FY23 budget allotted for this funding line.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	731.993	3.476	1.500	3.823	-	3.823	3.976	4.076	4.075	4.074	-	756.993
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	731.993	3.476	1.500	3.823	-	3.823	3.976	4.076	4.075	4.074	-	756.993
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**731.993**	**3.476**	**1.500**	**3.823**	**-**	**3.823**	**3.976**	**4.076**	**4.075**	**4.074**	**-**	**756.993**
(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 the Components and Renovation (C&R) of Field Stock effort as well as Weapon Components in support of Proof Acceptance Testing (PAT). C&R supports renovation for unserviceable training and combat ammunition to bring it back to serviceable condition at a lower cost when compared with procuring new ammunition. The testing efforts include funding to support the Army Test and Evaluation Command (ATEC) at Aberdeen and Yuma Test Centers. Funded testing includes Special Tests, First Article Tests (FAT), Renovation of Field Stocks, and PAT for training and combat ammunition.

Justification:

FY 2023 Base procurement dollars in the amount of $2.248 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 2023 Base procurement dollars in the amount of $1.575 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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): 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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	212.456	10.580	16.297	19.921	-	19.921	17.990	10.403	10.395	10.396	-	308.438
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	212.456	10.580	16.297	19.921	-	19.921	17.990	10.403	10.395	10.396	-	308.438
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**212.456**	**10.580**	**16.297**	**19.921**	**-**	**19.921**	**17.990**	**10.403**	**10.395**	**10.396**	**-**	**308.438**
(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 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 leadstyphnate 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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): A	**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 - The Ammunition Program Support effort enhances the management and distribution of ammunition. 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 across the portfolio.

(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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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): 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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	E00300 / CARTRIDGE 12 GAUGE SHOTGUN 7 1/2 CHILLED SHOT [A014]		A		- / 0.229	- / 0.011	- / 0.011	- / 0.011	- / -	- / 0.011
P-5	E03001 / CTG, .30cal Blank, M1909, Single [A222]		A		- / 30.168	- / 1.478	- / 0.648	- / 1.864	- / -	- / 1.864
P-5	E03701 / CTG, .300cal Win Mag, MK248 w/Mods (7.62x67mm) [A191]		A		- / 16.283	- / 0.969	- / 0.102	- / 0.357	- / -	- / 0.357
P-5	E03710 / CTG, .338cal Norma Magnum, AP, XM1162 f/Rifle		A		- / -	- / -	- / 3.818	- / 4.400	- / -	- / 4.400
P-5	E03715 / CTG, .30cal Norma Magnum, XM1163 f/Rifle	P-5a, P-21	A		- / -	- / -	- / 4.854	- / 5.546	- / -	- / 5.546
P-5	E92100 / CTG, 12 Gauge Breaching Round, M1030 [AA54]		A		- / 10.242	- / 0.822	- / 0.323	- / -	- / -	- / -
P-40a	E99101 / Special Training Ammo:				- / 35.453	- / 0.619	- / 0.474	- / 0.693	- / -	- / 0.693
P-40a	E99222 / Foreign Weapons Training Ammunition				- / 2.128	- / 0.499	- / 0.324	- / 0.508	- / -	- / 0.508
P-40a	EA0600 / AMMUNITION PROGRAM SUPPORT				- / 75.992	- / 4.895	- / 4.523	- / 5.087	- / -	- / 5.087
P-40a	EA0960 / USAMTU FT BENNING				- / 41.961	- / 1.287	- / 1.220	- / 1.455	- / -	- / 1.455
P-40	**Total Gross/Weapon System Cost**				**- / 212.456**	**- / 10.580**	**- / 16.297**	**- / 19.921**	**- / -**	**- / 19.921**

*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 2023 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 2023 Total Base dollars in the amount of $19.921 million supports the procurement of 4.361 million cartridges.

(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 2023 Base dollars in the amount of $0.011 million support the COCOM requirement for procurement of 0.020 million 12 Gauge Shotgun 7.5 Chilled cartridges to deter potential adversaries and support 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 2023 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2023 Base procurement dollars in the amount of $1.864 million supports the procurement of 2.402 million .30 Caliber Blank M11909 cartridges.
Type classification date: 1917

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

(E03701) CTG .300 Winchester Magnum (WinMag) MK248 is a training standard item used in both training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2023 Base procurement dollars in the amount of $0.357 million supports the procurement of 0.244 million MK248 cartridges.
Type classification date: October 2012

(E03710) CTG, .338cal Norma Magnum, AP, XM1162 f/Rifle is a training standard item used in both training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2023 Base procurement dollars in the amount of $4.400 million supports the procurement of 0.355 million, XM1162 f/Rifle cartridges.
Type classification date: Pending

(E03715) CTG, .30cal Norma Magnum, XM1163 f/Rifle is a training standard item used in both training and combat. The FY 2023 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2023 Base procurement dollars in the amount of $5.546 million supports the procurement of 1.340 million, XM1163 f/Rifle cartridges.
Type classification date: Pending

(E92100) CTG 12 GAUGE BREACHING ROUND M1030 is a training standard item used in training and combat. The request supports annual training and builds a depot level in accordance with the Army's procurement goals.
Type classification date: October 2007

(E99101) Special Training Ammunition - FY 2023 funds procure nonstandard and commercially-available specialty munitions and energetic materiel in support of FY 2023 US Army troop training requirements in accordance with DA G3/7-TRA authorizations. FY 2023 base funds in the amount of $0.693M support Unit training requirements across various Army Units. Authorizations issued under this program vary on an annual basis and are reviewed/updated during semi-annual Army Munitions Requirements Working Groups and Councils of Colonels.

(E99222) Foreign Weapons Training Ammunition. FY 2023 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 2023 Base procurement dollars in the amount of $0.508 million supports Non Standard Ammunition initiatives.

(EA0600) Ammunition Program Support - FY 2023 funds in the amount of $5.087M provide critical support to efficiently and effectively manage ammunition across the portfolio.

(EA0960) USAMTU Ft. Benning - FY 2023 funds in the amount of $1.455M procures nonstandard and commercially-available specialty munitions and energetic materiel in support of Army Marksmanship Unit training requirements. Funds will support DA G-3/7-TRA authorizations issued during FY 2023 Army Munitions Requirements Working Groups and Councils of Colonels in accordance with AR 5-13, the Total Army Munitions Requirements and Prioritization Policy.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.229	0.011	0.011	0.011	-	0.011
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.229	0.011	0.011	0.011	-	0.011
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.229**	**0.011**	**0.011**	**0.011**	**-**	**0.011**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	596,586	0.190	0.29	37,931	0.011	0.29	27,407	0.008	0.31	20,425	0.006	-	-	-	0.31	20,425	0.006
Subtotal: Recurring Cost	-	-	*0.190*	-	-	*0.011*	-	-	*0.008*	-	-	*0.006*	-	-	-	-	-	*0.006*
Subtotal: Hardware Cost	**-**	**-**	***0.190***	**-**	**-**	***0.011***	**-**	**-**	***0.008***	**-**	**-**	***0.006***	**-**	**-**	**-**	**-**	**-**	***0.006***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.039	-	-	0.000	-	-	0.003	-	-	0.005	-	-	-	-	-	0.005
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.039***	**-**	**-**	**-**	**-**	**-**	***0.003***	**-**	**-**	***0.005***	**-**	**-**	**-**	**-**	**-**	***0.005***
Gross/Weapon System Cost	**-**	**-**	**0.229**	**-**	**-**	**0.011**	**-**	**-**	**0.011**	**-**	**-**	**0.011**	**-**	**-**	**-**	**-**	**-**	**0.011**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	30.168	1.478	0.648	1.864	-	1.864
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	30.168	1.478	0.648	1.864	-	1.864
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**30.168**	**1.478**	**0.648**	**1.864**	**-**	**1.864**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	0.50	2,678,930	1.339	0.54	336,596	0.182	0.54	2,401,786	1.297	-	-	-	0.54	2,401,786	1.297
Subtotal: Recurring Cost	-	-	*28.742*	-	-	*1.339*	-	-	*0.182*	-	-	*1.297*	-	-	-	-	-	*1.297*
Subtotal: Hardware Cost	**-**	**-**	***28.742***	**-**	**-**	***1.339***	**-**	**-**	***0.182***	**-**	**-**	***1.297***	**-**	**-**	**-**	**-**	**-**	***1.297***
Support - Production Engineering Cost																		
Production Engineering	-	-	1.172	-	-	0.134	-	-	0.461	-	-	0.562	-	-	-	-	-	0.562
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.172***	**-**	**-**	***0.134***	**-**	**-**	***0.461***	**-**	**-**	***0.562***	**-**	**-**	**-**	**-**	**-**	***0.562***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.255	-	-	0.005	-	-	0.005	-	-	0.005	-	-	-	-	-	0.005
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.255***	**-**	**-**	***0.005***	**-**	**-**	***0.005***	**-**	**-**	***0.005***	**-**	**-**	**-**	**-**	**-**	***0.005***
Gross/Weapon System Cost	**-**	**-**	**30.168**	**-**	**-**	**1.478**	**-**	**-**	**0.648**	**-**	**-**	**1.864**	**-**	**-**	**-**	**-**	**-**	**1.864**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	16.283	0.969	0.102	0.357	-	0.357
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	16.283	0.969	0.102	0.357	-	0.357
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**16.283**	**0.969**	**0.102**	**0.357**	**-**	**0.357**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	1.12	11,730,554	13.088	0.91	846,844	0.771	-	-	-	1.19	244,168	0.291	-	-	-	1.19	244,168	0.291
Subtotal: Recurring Cost	-	-	*13.091*	-	-	*0.771*	-	-	-	-	-	*0.291*	-	-	-	-	-	*0.291*
Subtotal: Hardware Cost	**-**	**-**	***13.091***	**-**	**-**	***0.771***	**-**	**-**	**-**	**-**	**-**	***0.291***	**-**	**-**	**-**	**-**	**-**	***0.291***
Support - Production Engineering Cost																		
Production Engineering	-	-	3.181	-	-	0.188	-	-	0.097	-	-	0.061	-	-	-	-	-	0.061
Subtotal: Support - Production Engineering Cost	**-**	**-**	***3.181***	**-**	**-**	***0.188***	**-**	**-**	***0.097***	**-**	**-**	***0.061***	**-**	**-**	**-**	**-**	**-**	***0.061***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.012	-	-	0.010	-	-	0.005	-	-	0.005	-	-	-	-	-	0.005
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.012***	**-**	**-**	***0.010***	**-**	**-**	***0.005***	**-**	**-**	***0.005***	**-**	**-**	**-**	**-**	**-**	***0.005***
Gross/Weapon System Cost	**-**	**-**	**16.283**	**-**	**-**	**0.969**	**-**	**-**	**0.102**	**-**	**-**	**0.357**	**-**	**-**	**-**	**-**	**-**	**0.357**

Remarks:
The price difference from FY 2022 through FY 2023 is due to the step ladder pricing matrix based on quantity ranges. The total combined buy across all services was a lower order quantity which results in higher unit pricing.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	3.818	4.400	-	4.400
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	3.818	4.400	-	4.400
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**3.818**	**4.400**	**-**	**4.400**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	11.78	354,899	4.181	-	-	-	11.78	354,899	4.181
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*3.715*	-	-	*4.181*	-	-	-	-	-	*4.181*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.715***	**-**	**-**	***4.181***	**-**	**-**	**-**	**-**	**-**	***4.181***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.097	-	-	0.213	-	-	-	-	-	0.213
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.097***	**-**	**-**	***0.213***	**-**	**-**	**-**	**-**	**-**	***0.213***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	0.006	-	-	0.006	-	-	-	-	-	0.006
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.006***	**-**	**-**	***0.006***	**-**	**-**	**-**	**-**	**-**	***0.006***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3.818**	**-**	**-**	**4.400**	**-**	**-**	**-**	**-**	**-**	**4.400**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	4.854	5.546	-	5.546
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	4.854	5.546	-	5.546
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**4.854**	**5.546**	**-**	**5.546**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	3.79	1,340,450	5.080	-	-	-	3.79	1,340,450	5.080
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*4.719*	-	-	*5.080*	-	-	-	-	-	*5.080*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***4.719***	**-**	**-**	***5.080***	**-**	**-**	**-**	**-**	**-**	***5.080***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.129	-	-	0.460	-	-	-	-	-	0.460
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.129***	**-**	**-**	***0.460***	**-**	**-**	**-**	**-**	**-**	***0.460***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	0.006	-	-	0.006	-	-	-	-	-	0.006
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.006***	**-**	**-**	***0.006***	**-**	**-**	**-**	**-**	**-**	***0.006***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.854**	**-**	**-**	**5.546**	**-**	**-**	**-**	**-**	**-**	**5.546**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2023 Army		Date: April 2022
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	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
COMPLETE ROUND(†)		2022	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Apr 2022	Oct 2022	1,241,754	3.80	Y		
COMPLETE ROUND(†)		2023	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Apr 2023	Apr 2024	1,340,450	3.79	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	1.242	.000	1.242							A -	-	-	-	-	-	.103	.103	.103	.103	.103	.103	.103	.103	.103	.103	.103	.103	.000
	1	2022	NSOF (‡)	.050	.000	.050							A -	-	-	-	-	-	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.000
	1	**2022**	**Total**	**1.292**	**.000**	**1.292**							**-**	**-**	**-**	**-**	**-**	**-**	**.108**	**.108**	**.108**	**.108**	**.108**	**.108**	**.108**	**.108**	**.108**	**.108**	**.108**	**.108**	**.000**
	1	2023	ARMY	1.340	.000	1.340																			A -	-	-	-	-	-	1.340
	1	2023	NSOF (‡)	.100	.000	.100																			A -	-	-	-	-	-	.100
	1	**2023**	**Total**	**1.440**	**.000**	**1.440**																			**-**	**-**	**-**	**-**	**-**	**-**	**1.440**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		**Date:** April 2022
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 (Units in Millions, * = < 500)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	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																															
	1	2022	ARMY	1.242	1.242	.000																									.000
	1	2022	NSOF (‡)	.050	.050	.000																									.000
	1	**2022**	**Total**	**1.292**	**1.292**	**.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
	1	2023	ARMY	1.340	.000	1.340	-	-	-	-	-	-	.112	.112	.112	.112	.112	.112	.112	.112	.112	.112	.112	.112							.000
	1	2023	NSOF (‡)	.100	.000	.100	-	-	-	-	-	-	.008	.008	.008	.008	.008	.008	.008	.008	.008	.008	.008	.008							.000
	1	**2023**	**Total**	**1.440**	**.000**	**1.440**	**-**	**-**	**-**	**-**	**-**	**-**	**.120**	**.120**	**.120**	**.120**	**.120**	**.120**	**.120**	**.120**	**.120**	**.120**	**.120**	**.120**	**-**	**-**	**-**	**-**	**-**	**-**	**.000**
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2023 Army		Date: April 2022
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

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2023	1-8-5 For 2023	MAX For 2023	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	480	300,000	600,000	6	7	12	19	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).

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	10.242	0.822	0.323	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10.242	0.822	0.323	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10.242**	**0.822**	**0.323**	**-**	**-**	**-**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	2.74	276,996	0.759	2.78	85,400	0.237	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*10.079*	-	-	*0.759*	-	-	*0.237*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***10.079***	**-**	**-**	***0.759***	**-**	**-**	***0.237***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.163	-	-	0.063	-	-	0.085	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.163***	**-**	**-**	***0.063***	**-**	**-**	***0.085***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**10.242**	**-**	**-**	**0.822**	**-**	**-**	**0.323**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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:			-	-	35.453	-	-	0.619	-	-	0.474	-	-	0.693	-	-	-	-	-	0.693
E99222 / Foreign Weapons Training Ammunition			-	-	2.128	-	-	0.499	-	-	0.324	-	-	0.508	-	-	-	-	-	0.508
EA0600 / AMMUNITION PROGRAM SUPPORT			-	-	75.992	-	-	4.895	-	-	4.523	-	-	5.087	-	-	-	-	-	5.087
EA0960 / USAMTU FT BENNING			-	-	41.961	-	-	1.287	-	-	1.220	-	-	1.455	-	-	-	-	-	1.455
Subtotal: Various Items			**-**	**-**	***155.534***	**-**	**-**	***7.300***	**-**	**-**	***6.541***	**-**	**-**	***7.743***	**-**	**-**	**-**	**-**	**-**	***7.743***
Total			**-**	**-**	**155.534**	**-**	**-**	**7.300**	**-**	**-**	**6.541**	**-**	**-**	**7.743**	**-**	**-**	**-**	**-**	**-**	**7.743**

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

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	377.619	12.338	9.790	13.001	-	13.001	13.133	13.277	13.260	13.260	-	465.678
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	377.619	12.338	9.790	13.001	-	13.001	13.133	13.277	13.260	13.260	-	465.678
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**377.619**	**12.338**	**9.790**	**13.001**	**-**	**13.001**	**13.133**	**13.277**	**13.260**	**13.260**	**-**	**465.678**
(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 Ammunition Peculiar Equipment (APE) program provides support for ammunition operations including surveillance, demilitarization, maintenance, renovation, modification, packaging, and preservation per Army Regulation 700-20, Ammunition Peculiar Equipment. This program 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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				- / 377.619	- / 12.338	- / 9.790	- / 13.001	- / -	- / 13.001
P-40	**Total Gross/Weapon System Cost**				**- / 377.619**	**- / 12.338**	**- / 9.790**	**- / 13.001**	**- / -**	**- / 13.001**

*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 2023 Base procurement dollars in the amount of $13.001 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 2023. FY 2023 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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	377.619	12.338	9.790	13.001	-	13.001
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	377.619	12.338	9.790	13.001	-	13.001
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**377.619**	**12.338**	**9.790**	**13.001**	**-**	**13.001**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	6.979	-	-	0.500	-	-	0.500	-	-	2.047	-	-	-	-	-	2.047
Subtotal: Support - Contractor Logistics Support (CLS) Cost	**-**	**-**	***6.979***	**-**	**-**	***0.500***	**-**	**-**	***0.500***	**-**	**-**	***2.047***	**-**	**-**	**-**	**-**	**-**	***2.047***
Support - Fielding Cost																		
Fielding	-	-	18.732	-	-	0.276	-	-	0.276	-	-	0.282	-	-	-	-	-	0.282
Subtotal: Support - Fielding Cost	**-**	**-**	***18.732***	**-**	**-**	***0.276***	**-**	**-**	***0.276***	**-**	**-**	***0.282***	**-**	**-**	**-**	**-**	**-**	***0.282***
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	51.830	-	-	1.750	-	-	1.750	-	-	1.791	-	-	-	-	-	1.791
Subtotal: Support - Initial Spares and Repair Parts Cost	**-**	**-**	***51.830***	**-**	**-**	***1.750***	**-**	**-**	***1.750***	**-**	**-**	***1.791***	**-**	**-**	**-**	**-**	**-**	***1.791***
Support - Peculiar Support Equipment Cost																		
Test and Measurement Equipment	-	-	43.666	-	-	4.737	-	-	3.389	-	-	4.042	-	-	-	-	-	4.042
Subtotal: Support - Peculiar Support Equipment Cost	**-**	**-**	***43.666***	**-**	**-**	***4.737***	**-**	**-**	***3.389***	**-**	**-**	***4.042***	**-**	**-**	**-**	**-**	**-**	***4.042***
Support - Product Improvement Cost																		
Safety	-	-	3.695	-	-	2.550	-	-	1.550	-	-	2.588	-	-	-	-	-	2.588
Subtotal: Support - Product Improvement Cost	**-**	**-**	***3.695***	**-**	**-**	***2.550***	**-**	**-**	***1.550***	**-**	**-**	***2.588***	**-**	**-**	**-**	**-**	**-**	***2.588***

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	227.889	-	-	2.250	-	-	2.050	-	-	1.944	-	-	-	-	-	1.944
Subtotal: Support - Recapitalization Cost	**-**	**-**	***227.889***	**-**	**-**	***2.250***	**-**	**-**	***2.050***	**-**	**-**	***1.944***	**-**	**-**	**-**	**-**	**-**	***1.944***
Support - Staging and Transportation Cost																		
Staging and Transportation	-	-	24.828	-	-	0.275	-	-	0.275	-	-	0.307	-	-	-	-	-	0.307
Subtotal: Support - Staging and Transportation Cost	**-**	**-**	***24.828***	**-**	**-**	***0.275***	**-**	**-**	***0.275***	**-**	**-**	***0.307***	**-**	**-**	**-**	**-**	**-**	***0.307***
Gross/Weapon System Cost	**-**	**-**	**377.619**	**-**	**-**	**12.338**	**-**	**-**	**9.790**	**-**	**-**	**13.001**	**-**	**-**	**-**	**-**	**-**	**13.001**

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,010.865	15.908	4.331	17.528	-	17.528	18.068	18.640	18.627	18.627	-	1,122.594
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,010.865	15.908	4.331	17.528	-	17.528	18.068	18.640	18.627	18.627	-	1,122.594
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,010.865**	**15.908**	**4.331**	**17.528**	**-**	**17.528**	**18.068**	**18.640**	**18.627**	**18.627**	**-**	**1,122.594**
(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:

First Destination Transportation (FDT), as outlined in the DoD Financial Management Regulation (DoDFMR) 7000.14-R Volume 2A, Chapter 1, Para 010205, is that "transportation required to deliver new, an upgraded model, or recapitalized production items from the manufacturer's plant or source of procurement to the first point of delivery where the Military Service or Defense Agency takes possession and/or ownership of that item. The procurement source, as used herein, is any supplier outside the DoD supply system or any DoD industrial activity that fabricates new materiel. The procurement source or the first point of delivery may be in the Continental United States (CONUS) or overseas."

Justification:

FY 2023 base funding of $17.528M is required to support the distribution of Army ammunition end items and components IAW DoD FMR 7000.14-R, Volume 2A, Chapter 1, Para 010205 (Interim Transportation).

Distribution originates from and to CONUS and overseas manufacturing plants/contractors and/or assembly points (e.g., Army Ammunition Plants, Arsenals, Depots, 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, or to ports of embarkation in support of the Call Forward Program (i.e., Training, War Reserve, or the Overseas Contingency Operations).

Funding requirements for this effort are forecasted based on the overall procurement forecasts across the Army in a given fiscal year and the associated shipping costs. Funding promotes readiness and supports planned Army Ammunition procurements to avoid failing to meet FOB Origin delivery terms across ammunition contracts.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.597	0.099	0.099	0.101	-	0.101	0.102	0.101	0.102	0.101	-	1.302
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.597	0.099	0.099	0.101	-	0.101	0.102	0.101	0.102	0.101	-	1.302
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.597**	**0.099**	**0.099**	**0.101**	**-**	**0.101**	**0.102**	**0.101**	**0.102**	**0.101**	**-**	**1.302**
(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:

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 2023 base procurement dollars of $0.101 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	9,361.909	684.224	588.120	499.613	-	499.613	504.292	509.106	513.841	518.954	-	13,180.059
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	9,361.909	684.224	588.120	499.613	-	499.613	504.292	509.106	513.841	518.954	-	13,180.059
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**9,361.909**	**684.224**	**588.120**	**499.613**	**-**	**499.613**	**504.292**	**509.106**	**513.841**	**518.954**	**-**	**13,180.059**
(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 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army | **Date:** April 2022

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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Exhibit Type	Project	Total Cost ($ M)	Total Cost ($ M)	Total Cost ($ M)	Total Cost ($ M)	Total Cost ($ M)	Total Cost ($ M)
(Uncategorized)		-	684.224	588.120	499.613	-	499.613
	Holston Army Ammunition Plant	-	374.743	215.000	80.000	-	80.000
P-25	5XX3214 - Treatment Technology Alternatives to Open Burning	-	43.834	85.000	-	-	-
P-25	5225096 - Ansol Treatment	-	-	75.000	-	-	-
P-25	5225097 - Combined Wash/Filter Facility	-	-	50.000	-	-	-
P-25	5215110 - Area B Third Acid Train, Design/Construct	-	141.709	-	-	-	-
P-25	5215116 - New Kettle Drying Facility	-	57.300	-	-	-	-
P-25	5215151 - Nitration Facility, Design/Construct	-	128.400	-	-	-	-
P-25	5XX5168 - ANSol Tank Farms, (B-5, B-11), Construct	-	-	-	80.000	-	80.000
P-25	5215178 - TATB Production Facility, Mod Upgrades	-	3.500	-	-	-	-
P-25	5225283 - G Building River Water Usage Reduction	-	-	5.000	-	-	-
	Iowa Army Ammunition Plant	-	59.754	14.100	-	-	-
P-25	5213675 - Lake Mathes Dam Upgrade	-	2.000	-	-	-	-
P-25	5213794 - Railroad System Upgrades Yard D	-	15.554	-	-	-	-
P-25	5213904 - Water Tower Upgrades	-	2.683	-	-	-	-
P-25	5XX5030 - IAAAP Footprint Reduction - Long Range Precision Artillery Production Facility	-	17.800	2.500	-	-	-
P-25	5215036 - Roof Maintenance and Repairs	-	11.065	-	-	-	-
P-25	5215121 - 40MM High Velocity Grenade Defuze & Refuze	-	1.760	-	-	-	-
P-25	5215125 - Design & Construct New Metrology Lab	-	5.892	-	-	-	-
P-25	5225126 - Building 1 - 11 Inert Storage	-	-	6.400	-	-	-
P-25	5215169 - Asbestos Abatement Ramp Repairs	-	3.000	-	-	-	-
P-25	5225240 - Primary Water Pump Station	-	-	2.200	-	-	-
P-25	5225241 - Line 3A Sustainment	-	-	3.000	-	-	-
	Lake City Army Ammunition Plant	-	90.352	69.000	313.550	-	313.550
P-25	5XX3356 - Small Caliber Modernization, Next Generation Squad Weapon Ammunition facility	-	34.608	30.000	313.550	-	313.550
P-25	5223359 - Next Generation Squad Weapon Ammunition facility, Infrastructure Mod	-	-	25.000	-	-	-
P-25	5213463 - Roof and Structural Repairs Building 35	-	11.500	-	-	-	-
P-25	5213652 - HVAC Modifications, Loading And Exhaust (Construct)	-	22.340	-	-	-	-
P-25	5213708 - Structural Repairs Building 1	-	5.091	-	-	-	-
P-25	5213792 - IWTP Lagoon Liners & Filter Press	-	14.000	-	-	-	-
P-25	5215068 - Lightening Protection Upgrade	-	2.813	-	-	-	-
P-25	5225231 - Modernize B90 Series Neutralization Process & Tanks	-	-	14.000	-	-	-
	Radford Army Ammunition Plant	-	47.985	113.630	-	-	-
P-25	5223140 - Chemical Grind Facility	-	-	63.130	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Exhibit Type	Project	Total Cost ($ M)	Total Cost ($ M)	Total Cost ($ M)	Total Cost ($ M)	Total Cost ($ M)	Total Cost ($ M)
P-25	5213559 - Fire Protection System, Deluge Upgrade	-	3.218	-	-	-	-
P-25	5213723 - Energetic Waste Incinerator (EWI)/Contaminated Waste Processor (CWP)	-	26.437	-	-	-	-
P-25	5XX3753 - Workplace Safety Upgrades	-	18.330	9.000	-	-	-
P-25	5225090 - Alternate Nitrate Ester Facility (NG-3)	-	-	28.200	-	-	-
P-25	5XX5141 - Solventless/Rocket Area, Prod Operations	-	-	5.000	-	-	-
P-25	5XX5145 - Solvent Propellant Facility Sustainment, Ph 2	-	-	8.300	-	-	-
	Scranton Army Ammunition Plant	**-**	**18.011**	**30.200**	**-**	**-**	**-**
P-25	5213143 - Billet Yard Crane Repair	-	2.300	-	-	-	-
P-25	5213377 - Erie I Press Rebuild and Repair	-	5.816	-	-	-	-
P-25	5223419 - Bliss III Press & Furnace Upgrades	-	-	2.750	-	-	-
P-25	5223719 - Saw Cell Automation & Modernization	-	-	4.000	-	-	-
P-25	5215072 - Parking Lot and Billet Yard Repairs	-	2.000	-	-	-	-
P-25	5215130 - Retaining Walls and Bathroom Upgrade	-	2.000	-	-	-	-
P-25	5XX5150 - Infrastructure & Equipment Efforts	-	-	1.950	-	-	-
P-25	5215179 - 155mm XM Flexline Modernization	-	5.895	-	-	-	-
P-25	5225180 - Artillery Prod Line Mod	-	-	17.000	-	-	-
P-25	5225181 - Steam & Water Piping Mod Upgrades	-	-	0.500	-	-	-
P-25	5225182 - A2 Forge Shop Shot Blast Replacement	-	-	1.000	-	-	-
P-25	5225183 - M795 Pangborn Shot Blast Replacement	-	-	3.000	-	-	-
	Various Army Ammunition Plants	**-**	**90.517**	**115.885**	**85.998**	**-**	**85.998**
P-25	5XX0000 - Planning & Design in Support of Provision of Industrial Facilities	-	56.992	67.985	72.498	-	72.498
P-25	5215169 - Cyber Critical Infrastructure Risk Management (CIRM) Resiliency	-	25.525	-	-	-	-
P-25	5225405 - Quality of Work Environment Upgrades	-	-	4.000	9.000	-	9.000
P-25	5225406 - Major Maintenance at GOCO AAPs	-	-	8.900	4.500	-	4.500
P-25	5215407 - Lightweight Ammunition Manufacturing	-	8.000	-	-	-	-
P-25	5225408 - Safety and Environmental Upgrades	-	-	35.000	-	-	-
	Yuma Proving Ground / Aberdeen Test Center	**-**	**-**	**0.161**	**0.657**	**-**	**0.657**
P-25	5225060 - Replace Test Instrumentation in Production Acceptance Testing (Ammunition)	-	-	0.161	0.657	-	0.657
	Maintenance of Inactive Facilities	**-**	**2.602**	**5.109**	**6.972**	**-**	**6.972**
P-25	5XX4073 - Maintenance of Inactive Facilities	-	2.602	5.109	6.972	-	6.972
	Layaway Of Industrial Facilities	**-**	**0.260**	**25.035**	**12.436**	**-**	**12.436**
P-25	5XX8000 - Layaway Of Industrial Facilities	-	0.260	25.035	12.436	-	12.436
Total Gross/Weapon System Cost		**-**	**684.224**	**588.120**	**499.613**	**-**	**499.613**

*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

Exhibit P-40, Budget Line Item Justification: PB 2023 Army		Date: April 2022
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		

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 2023 procurement dollars in the amount of $499.613 million will support modernization projects to include construction of the Next Generation Squad Weapon ammunition production facility at Lake City Army Ammunition Plant (AAP) and construction of an Ammonium Nitrate Solution (ANSol) Tank Farm facility at Holston AAP. Additional efforts include, but not limited to, designs of a new tank line facility at Iowa AAP, a secondary river water intake facility at Holston AAP, and to replace fire protection distribution system at Lake City AAP. Funding efforts also support work environment projects, improvements for personnel safety and health, and emergent maintenance for all GOCOs. Funds will provide engineering support of industrial facilities, pre-design efforts for future-year modernization projects.

FY 2023 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 2023 funding supports the care and maintenance of layaway equipment and facilities at active and inactive ammunition installations.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	41.834	29.300	-	-	-
B. Equipment Cost	2.000	47.700	-	-	-
C. Equipment Installation Cost	-	4.500	-	-	-
D. Contractor Support Cost	-	-	-	-	-
E. Corps of Engineers Support Cost	-	3.500	-	-	-
F. Other In-House Support Cost	-	-	-	-	-
G. Total Facility Project Cost	-	-	-	-	-
H. Other Costs	-	-	-	-	-
Total Project Cost	43.834	85.000	-	-	-

Facility Name: Holston Army Ammunition Plant
Facility Location: Kingsport, Tennessee
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Apr 2023
Initial/Final Project Award:	Aug 2021 / Sep 2022
Construction Complete:	Feb 2026
Equipment Installation Complete:	Feb 2026
Prove Out Begins:	Mar 2026
Prove Out Complete:	Oct 2026

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

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.

Additional FY 2021 funding was part of a congressional add and was required for pollution control equipment, which will reduce potential worker exposure and improve environmental performance. Material and labor cost increases were also realized due to market conditions.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	54.500	-	-	-
B. Equipment Cost	-	12.750	-	-	-
C. Equipment Installation Cost	-	3.750	-	-	-
D. Contractor Support Cost	-	-	-	-	-
E. Corps of Engineers Support Cost	-	3.250	-	-	-
F. Other In-House Support Cost	-	-	-	-	-
G. Total Facility Project Cost	-	-	-	-	-
H. Other Costs	-	0.750	-	-	-
Total Project Cost	-	75.000	-	-	-

Facility Name: Holston Army Ammunition Plant
Facility Location: Kingsport, Tennessee
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Apr 2022
Initial/Final Project Award:	Sep 2020 / Sep 2022
Construction Complete:	Aug 2026
Equipment Installation Complete:	Aug 2026
Prove Out Begins:	Oct 2026
Prove Out Complete:	Mar 2027

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	35.050	-	-	-
B. Equipment Cost	-	8.000	-	-	-
C. Equipment Installation Cost	-	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	-	-	-
Total Project Cost	-	50.000	-	-	-

Facility Name: Holston Army Ammunition Plant
Facility Location: Kingsport, Tennessee
Facility Type (GOGO, GOCO, COCO): GOCO

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

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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).

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	**Date:** April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	133.709	-	-	-	-
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	141.709	-	-	-	-

Facility Name: Holston Army Ammunition Plant
Facility Location: Kingsport, Tennessee
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Jan 2021
Initial/Final Project Award:	Sep 2019 / Mar 2022
Construction Complete:	Mar 2024
Equipment Installation Complete:	Mar 2024
Prove Out Begins:	Apr 2024
Prove Out Complete:	Mar 2025

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

Procurement dollars in the amount of $141.709 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.

An upward adjustment notification was processed and approved.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	50.300	-	-	-	-
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	-	-	-	-	-
Total Project Cost	57.300	-	-	-	-

Facility Name: Holston Army Ammunition Plant
Facility Location: Kingsport, Tennessee
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Apr 2022
Initial/Final Project Award:	Sep 2021 / Mar 2022
Construction Complete:	Aug 2023
Equipment Installation Complete:	Aug 2023
Prove Out Begins:	Sep 2023
Prove Out Complete:	Aug 2024

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

Procurement dollars in the amount of $57.300 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.

Project experienced an increase in subcontractor costs due to market conditions for labor, materials and architectural and engineering services.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	111.400	-	-	-	-
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	128.400	-	-	-	-

Facility Name: Holston Army Ammunition Plant
Facility Location: Kingsport, Tennessee
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Apr 2021
Initial/Final Project Award:	Dec 2019 / Jun 2022
Construction Complete:	Feb 2024
Equipment Installation Complete:	Feb 2024
Prove Out Begins:	Feb 2024
Prove Out Complete:	Aug 2024

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

Procurement dollars in the amount of $128.400 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 and will provide an additional nitration capability to mitigate the risk associated with an aging single point failure facility. The existing facility is over 75 years old and is a single point failure in all RDX and HMX production..

The project experienced increases in subcontractor costs, labor and construction materials, and equipment and materials for infrastructure improvements.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	74.700	-	74.700
B. Equipment Cost	-	-	-	-	-
C. Equipment Installation Cost	-	-	-	-	-
D. Contractor Support Cost	-	-	-	-	-
E. Corps of Engineers Support Cost	-	-	4.800	-	4.800
F. Other In-House Support Cost	-	-	-	-	-
G. Total Facility Project Cost	-	-	-	-	-
H. Other Costs	-	-	0.500	-	0.500
Total Project Cost	-	-	80.000	-	80.000

Facility Name: Holston Army Ammunition Plant
Facility Location: Kingsport, Tennessee
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Dec 2020
Initial/Final Project Award:	Dec 2019 / May 2023
Construction Complete:	May 2025
Equipment Installation Complete:	May 2025
Prove Out Begins:	Jun 2025
Prove Out Complete:	May 2026

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
FY 2023 Base procurement dollars in the amount of $80.000 million supports replacement and construction of acid tanks in the B-5 and B-11 areas at Holston Army Ammunition Plant (AAP). The tanks support the storage of Ammonium Nitrate Solution (ANSol), a byproduct of Holston AAP RDX and HMX production operations. The existing acid tank farm 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.

Project Number 5XX5168 is a New Start in FY 2023.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	3.500	-	-	-	-
Total Project Cost	3.500	-	-	-	-

Facility Name: Holston Army Ammunition Plant
Facility Location: Kingsport, Tennessee
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Mar 2022
Construction Complete:	Sep 2023
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 $3.500 million supports modernization upgrades to the Trinitrobenzene (TATB) manufacturing 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.

Increase in funding was part of a FY 2021 congressional add and was necessary to support an increase in production for the Department of Defense and Department of Energy.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	3.090	-	-	-
B. Equipment Cost	-	0.325	-	-	-
C. Equipment Installation Cost	-	1.075	-	-	-
D. Contractor Support Cost	-	-	-	-	-
E. Corps of Engineers Support Cost	-	-	-	-	-
F. Other In-House Support Cost	-	-	-	-	-
G. Total Facility Project Cost	-	-	-	-	-
H. Other Costs	-	0.510	-	-	-
Total Project Cost	-	5.000	-	-	-

Facility Name: Holston Army Ammunition Plant
Facility Location: Kingsport, Tennessee
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Jul 2022
Initial/Final Project Award:	Mar 2022
Construction Complete:	Jun 2023
Equipment Installation Complete:	Mar 2024
Prove Out Begins:	Mar 2024
Prove Out Complete:	Jul 2024

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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).

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities	
Project Title: Lake Mathes Dam Upgrade	Project Number: 5213675	Project Category:
End Item Supported Model: N/A		Annual Capacity Before / After (1-8-5): /

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	-	-	-	-	-
C. Equipment Installation Cost	-	-	-	-	-
D. Contractor Support Cost	-	-	-	-	-
E. Corps of Engineers Support Cost	0.120	-	-	-	-
F. Other In-House Support Cost	-	-	-	-	-
G. Total Facility Project Cost	-	-	-	-	-
H. Other Costs	1.880	-	-	-	-
Total Project Cost	2.000	-	-	-	-

Facility Name: Iowa Army Ammunition Plant
Facility Location: Middletown, Iowa
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Jun 2021
Construction Complete:	Sep 2022
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 $2.000 million supports evaluation and repair of the Lake Mathes Dam at the Iowa Army Ammunition Plant (AAP). Lake Mathes Dam was constructed in the 1940s to provide water for production and fire protection operations. This effort will evaluate the current structure and relevant study of the dam and make necessary repairs to ensure safety of the structure.

FY 2021 funding was part of a congressional add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities
Project Title: Railroad System Upgrades Yard D	**Project Number:** 5213794 **Project Category:**
End Item Supported Model: Artillery, Tank, 40MM	**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	15.554	-	-	-	-
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	15.554	-	-	-	-

Facility Name: Iowa Army Ammunition Plant
Facility Location: Middletown, Iowa
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Jan 2022
Construction Complete:	Jan 2023
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 $15.554 million supports railroad system upgrades to yard D at Iowa Army Ammunition Plant (AAP). The railroad system was installed in the 1940?s and is approaching 80 years of continuous operation. Yard D is used daily to support transportation and storage of production items at Iowa AAP. Even with the recent success of three rail upgrade projects, significant deficiencies still remain that effect the operational continuity at Iowa AAP. The rail currently in place is reaching the end of its useful life. An ultrasonic rail inspection in 2014 found 107 defects and 41 critical defects on the main line. A significant portion of the critical defects are on the east running track. As a result of these deficiencies railroad traffic has been limited to a maximum train length of five (5) cars and a maximum speed limit of 5 miles per hour (mph).

Funds support a sustainment effort to maintain continuity at Iowa AAP.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities	
Project Title: Water Tower Upgrades	**Project Number:** 5213904	**Project Category:**
End Item Supported Model: Artillery, Tank, 40MM		**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	2.683	-	-	-	-
Total Project Cost	2.683	-	-	-	-

Facility Name: Iowa Army Ammunition Plant
Facility Location: Middletown, Iowa
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

Procurement dollars in the amount of $2.683 million supports upgrades to the water towers at the Iowa Army Ammunition Plant (AAP). The existing water towers were installed in the 1940?s during the original plant construction. They provide a storage location and system wide water pressure stabilization for both potable and process water. Numerous deficiencies were cited in 2004 Inspection reports and are necessary to maintain code compliance as well as the structural integrity of the existing tank. Failure of the existing tower will reduce the above ground water storage capability of the installation affecting production processes and fire suppression capability of the plant. Iowa AAP is required to maintain 50 pounds per square inch (psi) water pressure to all building services. This is measured at the backflow preventer. Iowa AAP also provides water to the local communities of Middletown and Danville via a 12? water main running through the Facility.

FY 2021 funding was part of a congressional add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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: Artillery		Annual Capacity Before / After (1-8-5): /

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	17.800	2.500	-	-	-
Total Project Cost	17.800	2.500	-	-	-

Facility Name: Iowa Army Ammunition Plant
Facility Location: Middletown, Iowa
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Oct 2020
Initial/Final Project Award:	Sep 2019 / Jun 2025
Construction Complete:	Jun 2027
Equipment Installation Complete:	Jun 2027
Prove Out Begins:	Jul 2027
Prove Out Complete:	Jul 2028

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

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.

A downward adjustment notification was processed and approved. The original design requirements did not incorporate the Army's industrial base transformational requirements for explosives graceful degradation, increased automation, and minimizing human exposure and handling of explosives. The construction project was deferred until 2024 and $17.800 million was held for design efforts.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities	
Project Title: Roof Maintenance and Repairs	**Project Number:** 5215036	**Project Category:**
End Item Supported Model: M112 C4, 40MM, Hellfire Missile		**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	11.065	-	-	-	-
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	11.065	-	-	-	-

Facility Name: Iowa Army Ammunition Plant
Facility Location: Middletown, Iowa
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

Procurement dollars in the amount of $11.065 million supports roof maintenance and repairs at Iowa Army Ammunition Plant (AAP). Production buildings in Line 1 support a variety of products, including M112 C4 production, 40mm, increment charges, ignition cartridges, and Hellfire warheads. Above Ground Magazines (AGMs) in Storage Yard E, Yard M and Yard L also support Line 1 production operations by securely storing critical munitions production components and finished products. Approximately 1,325,000 S.F. of total roofing needs to be replaced to extend the useful life span of the production and production support facilities. With the funding available, roofs in Yard E Groups 1 and 4, Yard M Group 1 and Yard L Group 2 will be repaired as they are of the highest concern. Without replacing the roofs identified future use of the buildings for operations and storing valuable materials will be compromised without replacement of the existing roofing materials.

Funds support a sustainment effort to maintain continuity at Iowa AAP.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	1.125	-	-	-	-
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	-	-	-	-

Facility Name: Iowa Army Ammunition Plant
Facility Location: Middletown, Iowa
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Sep 2022
Construction Complete:	Sep 2023
Equipment Installation Complete:	Sep 2023
Prove Out Begins:	Oct 2023
Prove Out Complete:	Apr 2024

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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	**Date:** April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	4.102	-	-	-	-
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	5.892	-	-	-	-

Facility Name: Iowa Army Ammunition Plant
Facility Location: Middletown, Iowa
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Oct 2021
Initial/Final Project Award:	Aug 2021
Construction Complete:	Sep 2022
Equipment Installation Complete:	Sep 2022
Prove Out Begins:	Oct 2022
Prove Out Complete:	Aug 2023

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
Procurement dollars in the amount of $5.892 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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	6.400	-	-	-
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	-	-	-

Facility Name: Iowa Army Ammunition Plant
Facility Location: Middletown, Iowa
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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-fabricated 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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities	
Project Title: Asbestos Abatement Ramp Repairs	**Project Number:** 5215169	**Project Category:**
End Item Supported Model: Artillery, Tank, 40MM		**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	3.000	-	-	-	-
Total Project Cost	3.000	-	-	-	-

Facility Name: Iowa Army Ammunition Plant
Facility Location: Middletown, Iowa
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Jun 2022
Construction Complete:	Dec 2023
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 $3.000 million supports asbestos abatement at the Iowa Army Ammunition Plant. The overall objective of this project is to abate the asbestos from existing ramps. Contractor will provide priority for selection of ramps for refurbishment at Line 1 and active facilities not scheduled for replacement.

FY 2021 funding was part of a congressional add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	Date: April 2022
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, 120MM, Artillery HE, Mortar 60MM, 120MM	**Annual Capacity Before / After (1-8-5):** /

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	1.900	-	-	-
B. Equipment Cost	-	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	-	-	-

Facility Name: Iowa Army Ammunition Plant
Facility Location: Middletown, Iowa
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	3.000	-	-	-
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	-	-	-

Facility Name: Iowa Army Ammunition Plant
Facility Location: Middletown, Iowa
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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 is 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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	7.500	-	222.010	-	222.010
B. Equipment Cost	19.608	-	76.040	-	76.040
C. Equipment Installation Cost	3.500	-	8.000	-	8.000
D. Contractor Support Cost	-	-	2.000	-	2.000
E. Corps of Engineers Support Cost	4.000	-	0.500	-	0.500
F. Other In-House Support Cost	-	-	-	-	-
G. Total Facility Project Cost	-	-	-	-	-
H. Other Costs	-	30.000	5.000	-	5.000
Total Project Cost	34.608	30.000	313.550	-	313.550

Facility Name: Lake City Army Ammunition Plant
Facility Location: Independence, Missouri
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Sep 2023
Initial/Final Project Award:	Dec 2017 / Aug 2023
Construction Complete:	Dec 2026
Equipment Installation Complete:	Dec 2026
Prove Out Begins:	Jan 2027
Prove Out Complete:	Sep 2027

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

FY 2023 Base procurement dollars in the amount of $313.550 million supports construction of the Next Generation Squad Weapon (NGSW) Ammunition facility at Lake City Army Ammunition Plant (AAP).

The Next Generation Squad Weapon (NGSW) is a Middle Tier of Acquisition program that has transitioned from rapid prototyping to rapid fielding of a new rifle, automatic rifle, and ammunition which provides increased lethality. The Next Generation Squad Weapon ? Ammunition (NGSW-A) program will consist of a suite of 6.8mm training and combat cartridges. Selection of Lake City AAP as the NGSW-A production facility will promote long-term security of supply for 6.8mm ammunition by integrating the loading, assembly, and pack out processes with the production of major ammunition subcomponents, such as cartridge case manufacturing, and projectile forming. Joint Program Executive Office (JPEO) Armaments and Ammunition is the agency lead for the development of this requirement to provide 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. There is currently no high capacity 6.8mm ammunition manufacturing facilities in the National Technology Industrial Base (NTIB).

The new 6.8mm facility will provide a state-of-the-art safe and environmental manufacturing capability to Lake City AAP. The facility will house modern manufacturing systems for the manufacturing of cutting edge small caliber ammunition products. Production disciplines may include metal and polymer parts manufacturing, energetic operations for charging ammunition, classified manufacturing and charging, cartridge packing areas, process quality controls including testing laboratories, maintenance operations, and general use administrative area including shipping and receiving of raw materials and finished products to support large-scale production to meet Army requirements. The manufacturing processes will have a significant level of automation with advanced safety and environmental sustainable material handling operations ensuring graceful degradation, operational resilience, and isolation of mass energetics from people. The production building and process support systems

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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):** /

will be designed to accommodate best practice manufacturing methodologies, processes, and equipment that provide flexible and maintainable operations to ensure manufacturing readiness to meet future requirements and technology advancements.

The NGSW-A program is a key Army Modernization Priority and supports the Soldier Lethality Cross Functional Team (CFT) objectives. This program will deliver light weight, performance enhanced small-caliber ammunition to Warfighters for improved mission readiness and assured overmatch capability. At completion, Lake City AAP will provide high-volume capability within the organic industrial base to produce 6.8mm ammunition. Lake City AAP will have state-of-the-art manufacturing equipment, processes, facilities, and infrastructure to achieve the Army?s annual production requirement, with no impact to current production capacity for legacy small caliber ammunition under a surge scenario.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	8.657	-	-	-
B. Equipment Cost	-	7.500	-	-	-
C. Equipment Installation Cost	-	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	-	-	-
Total Project Cost	-	25.000	-	-	-

Facility Name: Lake City Army Ammunition Plant
Facility Location: Independence, Missouri
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities
Project Title: Roof and Structural Repairs Building 35	**Project Number:** 5213463 **Project Category:**
End Item Supported Model: Cal .50, 7.62mm, and 5.56mm	**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	11.500	-	-	-	-
Total Project Cost	11.500	-	-	-	-

Facility Name: Lake City Army Ammunition Plant
Facility Location: Independence, Missouri
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	May 2022
Construction Complete:	
Equipment Installation Complete:	Mar 2025
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 $11.500 million supports roof and structural repair for building 35 at Lake City Army Ammunition Plant (AAP). This project will correct structural deficiencies, remove structural hazardous materials, and replace the roof in LCAAP?s Building 35. Structural upgrades will include corroded steel surface and masonry repair, application of appropriate protective coatings, replacement of windows and wood doors, refurbishment and replacement of portions of exterior walkway roofs, and steel member reinforcement. Hazardous materials attached to or inherent in the structural entities will be removed. The roof will be replaced with a fully tapered roofing system. Deficient drains and structural decking will also be repaired and/or replaced. Structural corrections and roof replacement will be made in compliance with Occupational Safety and Health Administration (OSHA), National Fire Protection Association (NFPA), National Electrical Code (NEC), Unified Facilities Criteria (UFC), and current building codes.

FY 2021 funding was part of a congressional add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	22.340	-	-	-	-
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	-	-	-	-

Facility Name: Lake City Army Ammunition Plant
Facility Location: Independence, Missouri
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Mar 2019
Initial/Final Project Award:	Aug 2021
Construction Complete:	Jan 2023
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 $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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities	
Project Title: Structural Repairs Building 1	**Project Number:** 5213708	**Project Category:**
End Item Supported Model: 5.56mm		**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	5.091	-	-	-	-
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	5.091	-	-	-	-

Facility Name: Lake City Army Ammunition Plant
Facility Location: Independence, Missouri
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Jul 2022
Construction Complete:	
Equipment Installation Complete:	Jul 2024
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 $5.091 million supports structural repairs for building 1 at Lake City Army Ammunition Plant (AAP).

FY 2021 funding was part of a congressional add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	13.160	-	-	-	-
B. Equipment Cost	-	-	-	-	-
C. Equipment Installation Cost	-	-	-	-	-
D. Contractor Support Cost	-	-	-	-	-
E. Corps of Engineers Support Cost	0.840	-	-	-	-
F. Other In-House Support Cost	-	-	-	-	-
G. Total Facility Project Cost	-	-	-	-	-
H. Other Costs	-	-	-	-	-
Total Project Cost	14.000	-	-	-	-

Facility Name: Lake City Army Ammunition Plant
Facility Location: Independence, Missouri
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities
Project Title: Lightening Protection Upgrade	**Project Number:** 5215068 **Project Category:**
End Item Supported Model: Cal .50, 7.62mm, 5.56mm	**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	2.813	-	-	-	-
Total Project Cost	2.813	-	-	-	-

Facility Name: Lake City Army Ammunition Plant
Facility Location: Independence, Missouri
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Mar 2022
Construction Complete:	
Equipment Installation Complete:	Mar 2024
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 $2.813 million supports lightening protection upgrades at Lake City Army Ammunition Plant (AAP). The existing catenary LPS for the 19 Series Buildings presently do not represent the original design intent which has potentially reduced the LPS protection effectiveness for all of the 19 Series Buildings. The existing wood poles are 25+ years old and are showing signs of deterioration. These poles have also physically moved inward (leaning toward the buildings) resulting in significant sag occurring in the catenary conductors which is impacting the original LPS design protection scheme. Also, the existing catenary LPS is deficient and does not meet current code requirements since the existing system was installed without National Fire Protection Association (NFPA) required buried grounding counterpoise system as required for energetic facilities that should have been installed around each of the buildings in accordance with the requirements of DAPAM 385-64 and Naval Sea Systems Command (NAVSEA) OP-5.

FY 2021 funding was part of a congressional add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	9.000	-	-	-
B. Equipment Cost	-	3.500	-	-	-
C. Equipment Installation Cost	-	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	-	-	-
Total Project Cost	-	14.000	-	-	-

Facility Name: Lake City Army Ammunition Plant
Facility Location: Independence, Missouri
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	Jul 2022
Initial/Final Project Award:	Apr 2022
Construction Complete:	Mar 2024
Equipment Installation Complete:	Mar 2024
Prove Out Begins:	May 2024
Prove Out Complete:	Jul 2024

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 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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	43.215	-	-	-
B. Equipment Cost	-	12.415	-	-	-
C. Equipment Installation Cost	-	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	-	-	-
Total Project Cost	-	63.130	-	-	-

Facility Name: Radford Army Ammunition Plant
Facility Location: Radford, Virginia
Facility Type (GOGO, GOCO, COCO): GOCO

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

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

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 propellant 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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities	
Project Title: Fire Protection System, Deluge Upgrade	Project Number: 5213559	Project Category:
End Item Supported Model: Propellants for Large, Medium, Small Cal, Rockets Munitions		Annual Capacity Before / After (1-8-5): /

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	3.218	-	-	-	-
Total Project Cost	3.218	-	-	-	-

Facility Name: Radford Army Ammunition Plant
Facility Location: Radford, Virginia
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	May 2020 / Dec 2021
Construction Complete:	
Equipment Installation Complete:	Jun 2023
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 $3.218 million supports modernization upgrades to the fire protection, deluge system at Radford Army Ammunition Plant (AAP). This effort will replace the existing deluge valves and Primac fire suppression system with a modern, effective fire protection system. The new system will also eliminate the explosively actuated Primac. Effort will maintain production continuity of propellants at Radford AAP. The new system will be a rapid response deluge system, engineered turnkey package consisting of all required flame detectors, electronic controls and high-speed deluge valves designed specifically for fire suppression and deflagration encountered in the energetic process industry. The new system will meet the National Fire Codes and Army Regulations for fire protection.

FY 2021 funding was part of a congressional add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities	
Project Title: Energetic Waste Incinerator (EWI)/Contaminated Waste Processor (CWP)	**Project Number:** 5213723	**Project Category:**
End Item Supported Model: Propellants for Large, Medium, Small Cal, Rockets Munitions		**Annual Capacity Before / After (1-8-5):** /

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	-	-	-	-	-
C. Equipment Installation Cost	-	-	-	-	-
D. Contractor Support Cost	-	-	-	-	-
E. Corps of Engineers Support Cost	1.587	-	-	-	-
F. Other In-House Support Cost	-	-	-	-	-
G. Total Facility Project Cost	-	-	-	-	-
H. Other Costs	24.850	-	-	-	-
Total Project Cost	26.437	-	-	-	-

Facility Name: Radford Army Ammunition Plant
Facility Location: Radford, Virginia
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Aug 2019 / Sep 2021
Construction Complete:	Jul 2025
Equipment Installation Complete:	Jul 2025
Prove Out Begins:	Aug 2025
Prove Out Complete:	Aug 2026

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

Procurement dollars in the amount of $26.437 million supports design of an Energetic Waste Incinerator (EWI)/Contaminated Waste Processor (CWP) at Radford Army Ammunition Plant (AAP). The new facility will be capable of processing 95% of all energetic and energetic-contaminated waste generated at RFAAP in compliance with all regulatory requirements, environmental and safety regulations and standards and minimizes (no more than 5%) use of Open Burning Grounds (OBG). The existing EWI facility has exceeded its useful life. Radford AAP is the principal domestic source of propellants for small, medium and large caliber ammunition. The new facility is critical in maintaining production operations and maintaining compliance with federal and state regulations.

An upward adjustment notification was processed and approved.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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, Small Cal, Rockets Munitions		**Annual Capacity Before / After (1-8-5):** /

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	9.000	-	-	-
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	18.330	-	-	-	-
Total Project Cost	18.330	9.000	-	-	-

Facility Name: Radford Army Ammunition Plant
Facility Location: Radford, Virginia
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

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 and ventilation as well as process enhancement measures to reduce safety risk.

FY 2021 funding in the amount of $18.330 million was part of a congressional add and will support modernization upgrades at Radford AAP to improve safety measures and reduce risk to injury of personnel.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	**Date:** April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	2.000	-	-	-
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	-	-	-
Total Project Cost	-	28.200	-	-	-

Facility Name: Radford Army Ammunition Plant
Facility Location: Radford, Virginia
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
Procurement dollars in the amount of $28.200 million supports design of a new nitrate ester facility at Radford Army Ammunition Plant. Nitrate esters including 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. The new facility when constructed will significantly increase safety and product quality by utilizing totally remote and automated processes, reducing operator exposure to chemicals and energetics.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	5.000	-	-	-
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	-	5.000	-	-	-

Facility Name: Radford Army Ammunition Plant
Facility Location: Radford, Virginia
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	5.900	-	-	-
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	-	-	-
Total Project Cost	-	8.300	-	-	-

Facility Name: Radford Army Ammunition Plant
Facility Location: Radford, Virginia
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	**Date:** April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities
Project Title: Billet Yard Crane Repair	**Project Number:** 5213143 **Project Category:**
End Item Supported Model: Artillery	**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	2.300	-	-	-	-
Total Project Cost	2.300	-	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Jun 2022
Construction Complete:	
Equipment Installation Complete:	Dec 2023
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 $2.300 million support repairs to Billet Yard Crane at Scranton Army Ammunition Plant (AAP). The Billet Yard Crane is over 40 years old, and is used to transport steel bar into the facility. The crane?s age and working environment are causing significant down time and safety issues. A waiver requiring biannual inspections is currently keeping the crane in operation. This project will modernize the crane, replace the current crane rails, and will dispose of a second non-operational facility crane. Completion of this project will ensure continued operations at Scranton AAP for Large Caliber Metal Parts production, and will provide for safe transfer of steel bar into the facility.

FY 2021 funding was part of a congressional add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities	
Project Title: Erie I Press Rebuild and Repair	Project Number: 5213377	Project Category:
End Item Supported Model: M795		Annual Capacity Before / After (1-8-5): /

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	5.316	-	-	-	-
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	5.816	-	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Apr 2022 / Sep 2022
Construction Complete:	
Equipment Installation Complete:	Mar 2024
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 $5.816 million supports a complete rebuild and repair of the Erie I Press at Scranton Army Ammunition Plant (AAP). The Erie I Press system has seen significant down time and quality issues over the past several years. This is partially due to the aging rebuild of the Press System and increases to M795 Production requirements. Over the last five years M795 Metal Parts Production has seen an average total increase of 355% over 2016 production levels. The Erie I Press System has been Non-Mission Capable (NMC) for 17.2% of available time over the last two years resulting in missed production deliveries of roughly 2,000 metal parts per month. The quality and down time issues observed with the Erie I Press System over the last several years have caused the Government to reevaluate the rebuild life of this system. Without repairing, rebuilding and modernizing the system, the contractor will continue to miss production deliveries, have a high production scrap rate and have higher than anticipated maintenance and repair costs.

Funds support a facility sustainment effort to maintain critical forging capability of Erie I Press at Scranton AAP.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	-	2.100	-	-	-
C. Equipment Installation Cost	-	0.500	-	-	-
D. Contractor Support Cost	-	-	-	-	-
E. Corps of Engineers Support Cost	-	-	-	-	-
F. Other In-House Support Cost	-	-	-	-	-
G. Total Facility Project Cost	-	-	-	-	-
H. Other Costs	-	0.150	-	-	-
Total Project Cost	-	2.750	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Mar 2022
Construction Complete:	
Equipment Installation Complete:	Mar 2024
Prove Out Begins:	Apr 2024
Prove Out Complete:	May 2024

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	**Date:** April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	-	2.760	-	-	-
C. Equipment Installation Cost	-	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	-	-	-
Total Project Cost	-	4.000	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Apr 2022
Construction Complete:	
Equipment Installation Complete:	Apr 2023
Prove Out Begins:	May 2023
Prove Out Complete:	Jun 2023

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities
Project Title: Parking Lot and Billet Yard Repairs	**Project Number:** 5215072 **Project Category:**
End Item Supported Model: Artillery	**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	2.000	-	-	-	-
Total Project Cost	2.000	-	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Jun 2022
Construction Complete:	
Equipment Installation Complete:	Dec 2023
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 $2.000 million support repairs to the parking lot and Billet Yard at Scranton Army Ammunition Plant (AAP). The facilities Parking Lots, Roadways and Billet Yard are showing significant degradation due to age, environment and extended use of rock salt based de-icing. This degradation is seen as pot holes and cracking which can cause water to leak into the Subway causing additional structural damage. Complete implementation of this project will focus on the pavement and sealing of the parking lot, roadways and billet yard. This project will remove the existing deteriorated surface, replace concrete barriers, repave/seal the area, and update the parking/safety stripping to improve traffic flow.

FY 2021 funding was part of a congressional add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities	
Project Title: Retaining Walls and Bathroom Upgrade	**Project Number:** 5215130	**Project Category:**
End Item Supported Model:		**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	2.000	-	-	-	-
Total Project Cost	2.000	-	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Jun 2022
Construction Complete:	
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 $2.000 million supports repair of a retaining wall and bathroom upgrades in the administration building at Scranton Army Ammunition Plant. The retaining wall is failing, with visible, deteriorated concrete. Loose concrete is adjacent to the sidewalk and may result in injury to personnel and/or visitors at the Plant. The upgrades to bathrooms will improve quality of work environment.

FY 2021 funding was part of a congressional add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	1.150	-	-	-
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	-	-	-
Total Project Cost	-	1.950	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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 unscheduled maintenance, repair and modernization of production equipment and facilities that would prevent serious injury to personnel or effects to the environment.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	P-1 Line Item Number / Title: 0572EP1000 / Industrial Facilities	
Project Title: 155mm XM Flexline Modernization	Project Number: 5215179	Project Category:
End Item Supported Model: XM1128		Annual Capacity Before / After (1-8-5): /

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	5.395	-	-	-	-
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	5.895	-	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Jun 2022
Construction Complete:	
Equipment Installation Complete:	Jun 2024
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 $5.895 million supports procurement and installation of production equipment to meet overall XM1128 production goals at Scranton Army Ammunition Plant (AAP). Over the next several years a number of new 155mm Projectile Metal Parts will enter Full Rate Production (FRP) to meet the Army?s Extended Range Cannon Artillery (ERCA) requirements. The first of these next generation projectiles to enter FRP will be the XM1128, with the XM1113/1210 lagging behind roughly six months. Current XM production is handled utilizing small batch type Flexible Manufacturing Cells and the M795 Rough Turn and Finish Turn lines. This equipment is unable to meet anticipated FRP quantities and its use interferes with M795 production. This project will establish the first new FRP line at Scranton AAP since the M795 line was installed in the early 1990?s. This line will be a modern, robust and expandable manufacturing line capable of economically meeting anticipated XM1128 production requirements at the Scranton AAP. The production line will be sized to produce roughly 5,000 XM1128 Metal Parts per month and may form the backbone of the follow on XM1113/1210 production line.

Funds supports procurement of production equipment at Scranton AAP.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	**Date:** April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	-	12.560	-	-	-
C. Equipment Installation Cost	-	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	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

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

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army	**Date:** April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	0.500	-	-	-
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	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	-	0.760	-	-	-
C. Equipment Installation Cost	-	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	-	-	-
Total Project Cost	-	1.000	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	-	2.320	-	-	-
C. Equipment Installation Cost	-	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	-	-	-
Total Project Cost	-	3.000	-	-	-

Facility Name: Scranton Army Ammunition Plant
Facility Location: Scranton, Pennsylvania
Facility Type (GOGO, GOCO, COCO): GOCO

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

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:
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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army | **Date:** April 2022

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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	56.992	67.985	72.498	-	72.498
Total Project Cost	56.992	67.985	72.498	-	72.498

Facility Name: Various Army Ammunition Plants
Facility Location: Various Army Ammunition Plants
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Dec 2021 / Mar 2023
Construction Complete:	
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:
FY 2023 Base procurement dollars in the amount of $72.498 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. In addition, funding supports Corps of Engineers supervisory and administration costs as well as contingency requirements related to modernization efforts.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 02 / 10	**P-1 Line Item Number / Title:** 0572EP1000 / Industrial Facilities	
Project Title: Cyber Critical Infrastructure Risk Management (CIRM) Resiliency	**Project Number:** 5215169	**Project Category:**
End Item Supported Model: Multiple		**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	25.525	-	-	-	-
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	25.525	-	-	-	-

Facility Name: Various Army Ammunition Plants
Facility Location: Various Army Ammunition Plants
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Aug 2021 / May 2022
Construction Complete:	
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 $25.525 million support modernization upgrades to Cyber Critical Infrastructure Risk Management (CIRM) Resiliency at various Army Ammunition Plants (AAP), including Holston, Iowa, Lake City, Scranton, and Radford AAPs. DoDI 8500.01 requires a multi-tiered cybersecurity risk management process to protect U.S. interests, DoD operational capabilities, and assets at the DoD Information Enterprise level, through the DoD Component and the Information Systems (IS) level. These efforts will enhance and defend the process control networks at the various AAPs, in order to create a more modern, managed environment. This includes network architecture and infrastructure upgrades.

FY 2021 funding was part of a congressional add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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: Multiple		Annual Capacity Before / After (1-8-5): /

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	4.000	9.000	-	9.000
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	9.000	-	9.000

Facility Name: Various Army Ammunition Plants
Facility Location: Various Army Ammunition Plants
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Apr 2022 / Apr 2023
Construction Complete:	
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:
FY 2023 Base procurement dollars in the amount of $9.000 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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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: Multiple		Annual Capacity Before / After (1-8-5): /

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	2.000	-	-	-
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	4.500	-	4.500
Total Project Cost	-	8.900	4.500	-	4.500

Facility Name: Various Army Ammunition Plants
Facility Location: Various Army Ammunition Plants
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Mar 2022 / Mar 2023
Construction Complete:	
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:
FY 2023 Base procurement dollars in the amount of $4.500 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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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: 7.62mm		**Annual Capacity Before / After (1-8-5): /**

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
B. Equipment Cost	6.500	-	-	-	-
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	1.500	-	-	-	-
Total Project Cost	8.000	-	-	-	-

Facility Name: Various Army Ammunition Plants
Facility Location: Various Army Ammunition Plants
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Mar 2022 / Apr 2022
Construction Complete:	
Equipment Installation Complete:	May 2024
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 $8.000 million support facilitization for advance lightweight ammunition manufacturing at Lake City Army Ammunition Plant. 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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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: 5225408	Project Category:
End Item Supported Model:		Annual Capacity Before / After (1-8-5): /

Cost Elements ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	-	35.000	-	-	-
Total Project Cost	-	35.000	-	-	-

Facility Name: Various Army Ammunition Plants
Facility Location: Various Army Ammunition Plants
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

Procurement dollars in the amount of $35.000 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 and repair of 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 $35.000 million Congressional Add.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	-	0.161	0.657	-	0.657
Total Project Cost	-	0.161	0.657	-	0.657

Facility Name: Yuma Proving Ground / Aberdeen Test Center
Facility Location: Yuma, Arizona / Aberdeen, Maryland
Facility Type (GOGO, GOCO, COCO): GOCO

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:	

Related Projects

Project Number	Title	FY & Appn	Value ($ M)	Facing	Start Date	Compl Date

Narrative Explanation:

FY 2023 Base procurement dollars in the amount of $0.657 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.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army | **Date:** April 2022

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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	2.602	5.109	6.972	-	6.972
Total Project Cost	2.602	5.109	6.972	-	6.972

Facility Name: Maintenance of Inactive Facilities
Facility Location: Various AAPs
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Dec 2021 / Apr 2023
Construction Complete:	
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:
FY 2023 Base procurement dollars in the amount $6.972 million supports the care and maintenance of laid-away equipment and facilities at active and inactive ammunition installations.

Program costs were updated to reflect actuals for this production facilities maintenance effort which supports active and inactive ammunition installations.

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2023 Army		Date: April 2022
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 ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
A. Construction Cost	-	-	-	-	-
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	0.260	25.035	12.436	-	12.436
Total Project Cost	0.260	25.035	12.436	-	12.436

Facility Name: Layaway Of Industrial Facilities
Facility Location: Various AAPs
Facility Type (GOGO, GOCO, COCO): GOCO

Principal Milestones	Month & Year
Concept Design Complete:	
Final Design Complete:	
Initial/Final Project Award:	Nov 2020 / May 2023
Construction Complete:	
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:

FY 2023 Base procurement dollars in the amount of $12.436 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.

FY 2021 Program costs were updated to reflect actuals for Layaway Of Industrial Facilities (LIF) efforts.

The cost increase to FY 2022 is supported by a $15.000M congressional add for demolition of legacy facilities.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	3,551.725	188.092	132.410	80.970	-	80.970	118.630	120.703	128.937	128.995	-	4,450.462
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3,551.725	188.092	132.410	80.970	-	80.970	118.630	120.703	128.937	128.995	-	4,450.462
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3,551.725**	**188.092**	**132.410**	**80.970**	**-**	**80.970**	**118.630**	**120.703**	**128.937**	**128.995**	**-**	**4,450.462**
(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 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 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.

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 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)				- / 2,897.977	- / 148.081	- / 92.736	- / 56.340	- / -	- / 56.340
P-5	EP1801 / Other Non-Army Service Demil Items (non-SMCA)				- / 88.356	- / 13.477	- / 15.391	- / 13.119	- / -	- / 13.119
P-5	EP1802 / Army Missile Demilitarization				- / 521.708	- / 20.683	- / 16.524	- / 7.016	- / -	- / 7.016
P-5	EP1803 / Non-Army Missile Demilitarization				- / 43.684	- / 5.851	- / 7.759	- / 4.495	- / -	- / 4.495
P-40	**Total Gross/Weapon System Cost**				**- / 3,551.725**	**- / 188.092**	**- / 132.410**	**- / 80.970**	**- / -**	**- / 80.970**

*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 2023 Base procurement dollars in the amount of $80.970 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 2023 funds will support the United States the demilitarization and disposition of 26,871 tons of conventional ammunition and an additional 1,697 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 decreases 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 February 2022, the Single Manager for Conventional Ammunition (SMCA) Resource, Recovery and Disposition Account (B5A) contained 373,837 tons of ammunition in storage: 336,195 tons of conventional ammunition and 37,642 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.

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,897.977	148.081	92.736	56.340	-	56.340
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,897.977	148.081	92.736	56.340	-	56.340
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,897.977**	**148.081**	**92.736**	**56.340**	**-**	**56.340**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	99.058	-	-	0.811	-	-	-	-	-	-	-	-	-	-	-	-
DEMOLITION MATERIAL	-	-	2.551	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HE DETONATORS/ BOOSTERS	-	-	5.041	-	-	0.293	-	-	-	-	-	-	-	-	-	-	-	-
HE BOMBS	-	-	47.670	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HE CARTRIDGES	-	-	175.063	-	-	4.977	-	-	-	-	-	-	-	-	-	-	-	-
GRENADES	-	-	3.529	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HE DEPTH CHARGES	-	-	17.572	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CLUSTER BOMBS/ ICM; ANTI-TANK & PERSONNEL	-	-	367.000	-	-	0.439	-	-	23.929	-	-	25.727	-	-	-	-	-	25.727
HE LAND MINES	-	-	90.317	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
INERT	-	-	38.965	-	-	1.281	-	-	0.240	-	-	-	-	-	-	-	-	-
MULTIPLE FAMILY	-	-	511.270	-	-	10.246	-	-	7.328	-	-	3.151	-	-	-	-	-	3.151
BULK HIGH EXPLOSIVES	-	-	123.769	-	-	3.411	-	-	-	-	-	-	-	-	-	-	-	-
PROPELLANT CHARGES/INCREMENT CHARGES	-	-	149.770	-	-	7.551	-	-	8.097	-	-	7.545	-	-	-	-	-	7.545
TARGET PRACTICES/ 40MM ANTI-AIRCRAFT	-	-	51.235	-	-	0.923	-	-	0.609	-	-	-	-	-	-	-	-	-
SMALL ARMS AMMO THRU 20MM	-	-	32.037	-	-	5.062	-	-	6.878	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	75.054	-	-	3.833	-	-	-	-	-	1.650	-	-	-	-	-	1.650
FUZES	-	-	52.807	-	-	2.169	-	-	2.333	-	-	-	-	-	-	-	-	-
TRANSPORTATION	-	-	192.614	-	-	16.961	-	-	9.095	-	-	6.820	-	-	-	-	-	6.820
MUNITIONS CHARACTERIZATION	-	-	89.040	-	-	-	-	-	1.000	-	-	2.500	-	-	-	-	-	2.500
OCONUS DEMIL - EUCOM	-	-	48.235	-	-	-	-	-	0.450	-	-	0.466	-	-	-	-	-	0.466
OCONUS DEMIL - PACOM	-	-	11.380	-	-	0.250	-	-	0.300	-	-	0.311	-	-	-	-	-	0.311
CONTRACT - CONUS DEMIL	-	-	646.984	-	-	82.224	-	-	20.543	-	-	5.620	-	-	-	-	-	5.620
DU Cartridges	-	-	17.187	-	-	4.585	-	-	8.534	-	-	-	-	-	-	-	-	-
Subtotal: Support - Demilitarization Cost	***-***	***-***	***2,848.148***	***-***	***-***	***145.016***	***-***	***-***	***89.336***	***-***	***-***	***53.790***	***-***	***-***	***-***	***-***	***-***	***53.790***
Support - Program Management Cost																		
Government Management	-	-	49.829	-	-	3.065	-	-	3.400	-	-	2.550	-	-	-	-	-	2.550
Subtotal: Support - Program Management Cost	***-***	***-***	***49.829***	***-***	***-***	***3.065***	***-***	***-***	***3.400***	***-***	***-***	***2.550***	***-***	***-***	***-***	***-***	***-***	***2.550***
Gross/Weapon System Cost	**-**	**-**	**2,897.977**	**-**	**-**	**148.081**	**-**	**-**	**92.736**	**-**	**-**	**56.340**	**-**	**-**	**-**	**-**	**-**	**56.340**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	88.356	13.477	15.391	13.119	-	13.119
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	88.356	13.477	15.391	13.119	-	13.119
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**88.356**	**13.477**	**15.391**	**13.119**	**-**	**13.119**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	3.241	-	-	-	-	-	-	-	-	-	-	-	-
SONOBUOYS	-	-	2.404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CONTRACT - CONUS DEMIL	-	-	15.490	-	-	7.357	-	-	6.245	-	-	6.929	-	-	-	-	-	6.929
TRANSPORTATION	-	-	2.412	-	-	1.778	-	-	1.055	-	-	-	-	-	-	-	-	-
INCINERABLE MUNITIONS/ MISCELLANEOUS	-	-	1.470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HE BOMBS	-	-	-	-	-	-	-	-	5.491	-	-	-	-	-	-	-	-	-
CLUSTER BOMBS/ ICM; ANTI-TANK & PERSONNEL	-	-	9.382	-	-	-	-	-	2.600	-	-	6.190	-	-	-	-	-	6.190
DU Cartridges	-	-	15.554	-	-	1.101	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Demilitarization Cost	***-***	***-***	***88.356***	***-***	***-***	***13.477***	***-***	***-***	***15.391***	***-***	***-***	***13.119***	***-***	***-***	***-***	***-***	***-***	***13.119***
Gross/Weapon System Cost	**-**	**-**	**88.356**	**-**	**-**	**13.477**	**-**	**-**	**15.391**	**-**	**-**	**13.119**	**-**	**-**	**-**	**-**	**-**	**13.119**

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	521.708	20.683	16.524	7.016	-	7.016
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	521.708	20.683	16.524	7.016	-	7.016
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**521.708**	**20.683**	**16.524**	**7.016**	**-**	**7.016**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	237.002	-	-	8.562	-	-	3.243	-	-	0.891	-	-	-	-	-	0.891
ROCKET MOTORS	-	-	5.668	-	-	3.207	-	-	1.850	-	-	0.223	-	-	-	-	-	0.223
TOW CD/R3	-	-	41.843	-	-	-	-	-	0.194	-	-	-	-	-	-	-	-	-
HELLFIRE	-	-	0.620	-	-	-	-	-	0.032	-	-	-	-	-	-	-	-	-
STINGER	-	-	2.596	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PATRIOT	-	-	2.676	-	-	0.250	-	-	1.020	-	-	0.496	-	-	-	-	-	0.496
HONEST JOHN	-	-	1.476	-	-	0.240	-	-	0.225	-	-	0.020	-	-	-	-	-	0.020
MISSILE COMPONENTS	-	-	70.615	-	-	1.026	-	-	1.040	-	-	0.179	-	-	-	-	-	0.179
HAWK MOTORS	-	-	4.266	-	-	-	-	-	0.302	-	-	0.296	-	-	-	-	-	0.296
DEMIL PROCESS IMPROVEMENTS	-	-	92.069	-	-	3.000	-	-	2.246	-	-	-	-	-	-	-	-	-
TRANSPORTATION	-	-	24.085	-	-	1.313	-	-	1.800	-	-	1.717	-	-	-	-	-	1.717
MULTIPLE FAMILY	-	-	3.113	-	-	0.283	-	-	-	-	-	0.058	-	-	-	-	-	0.058
CONTRACT - CONUS DEMIL	-	-	-	-	-	-	-	-	2.200	-	-	0.882	-	-	-	-	-	0.882
Subtotal: Support - Demilitarization Cost	***-***	***-***	***486.029***	***-***	***-***	***17.881***	***-***	***-***	***14.152***	***-***	***-***	***4.762***	***-***	***-***	***-***	***-***	***-***	***4.762***
Support - Program Management Cost																		
Government Management	-	-	35.679	-	-	2.802	-	-	2.372	-	-	2.254	-	-	-	-	-	2.254
Subtotal: Support - Program Management Cost	***-***	***-***	***35.679***	***-***	***-***	***2.802***	***-***	***-***	***2.372***	***-***	***-***	***2.254***	***-***	***-***	***-***	***-***	***-***	***2.254***

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	521.708	-	-	20.683	-	-	16.524	-	-	7.016	-	-	-	-	-	7.016

Exhibit P-5, Cost Analysis: PB 2023 Army		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	43.684	5.851	7.759	4.495	-	4.495
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	43.684	5.851	7.759	4.495	-	4.495
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**43.684**	**5.851**	**7.759**	**4.495**	**-**	**4.495**
(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 2021			FY 2022			FY 2023 Base			FY 2023 OCO			FY 2023 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	-	-	40.006	-	-	-	-	-	-	-	-	0.247	-	-	-	-	-	0.247
ROCKET MOTORS	-	-	1.800	-	-	2.600	-	-	2.848	-	-	1.292	-	-	-	-	-	1.292
MISSILE COMPONENTS	-	-	1.878	-	-	-	-	-	2.072	-	-	1.742	-	-	-	-	-	1.742
Demilitarization	-	-	-	-	-	0.163	-	-	-	-	-	-	-	-	-	-	-	-
Maverick Missile	-	-	-	-	-	3.088	-	-	0.617	-	-	0.249	-	-	-	-	-	0.249
Tomahawk	-	-	-	-	-	-	-	-	2.222	-	-	0.818	-	-	-	-	-	0.818
TRANSPORTATION	-	-	-	-	-	-	-	-	-	-	-	0.147	-	-	-	-	-	0.147
Subtotal: Support - Demilitarization Cost	**-**	**-**	***43.684***	**-**	**-**	***5.851***	**-**	**-**	***7.759***	**-**	**-**	***4.495***	**-**	**-**	**-**	**-**	**-**	***4.495***
Gross/Weapon System Cost	**-**	**-**	**43.684**	**-**	**-**	**5.851**	**-**	**-**	**7.759**	**-**	**-**	**4.495**	**-**	**-**	**-**	**-**	**-**	**4.495**

Exhibit P-40, Budget Line Item Justification: PB 2023 Army	Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	370.476	3.369	3.178	4.039	-	4.039	4.161	4.193	4.212	4.271	-	397.899
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	370.476	3.369	3.178	4.039	-	4.039	4.161	4.193	4.212	4.271	-	397.899
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**370.476**	**3.369**	**3.178**	**4.039**	**-**	**4.039**	**4.161**	**4.193**	**4.212**	**4.271**	**-**	**397.899**
(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 2023 Base procurement dollars in the amount of $4.039 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.