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**Department of Defense
Fiscal Year (FY) 2024 Budget Estimates**

March 2023



Army

Justification Book Volume 1 of 1

Procurement of W&TCV, Army

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Army • Budget Estimates FY 2024 • Procurement

Volume 1 Table of Contents

Introduction and Explanation of Contents.....Volume 1 - ii
Comptroller Exhibit P-1.....Volume 1 - iv
Line Item Table of Contents (by Appropriation then Line Number)..... Volume 1 - xv
Line Item Table of Contents (Alphabetically by Line Item Title)..... Volume 1 - xviii
Exhibit P-1M, Procurement Programs - Modification Summary..... Volume 1 - xx
Exhibit P-40s..... Volume 1 - 1

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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 W&TCV, ARMY

Appropriation Language

For construction, procurement, production, and modification of weapons and tracked combat vehicles, equipment, including ordnance, spare parts, and accessories therefore; specialized equipment and training devices; expansion of public and private plants, including the land necessary therefore, for the foregoing purposes, and such lands and interests 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, \$3,765,521,000.00 to remain available for obligation until September 30, 2026.

Fiscal Year (FY) 2024 Overseas Operations Costs funding accounted for in the Base budget total \$17,956,000.00.

FY 2022 includes \$55,564,000.00 in OOC execution. FY 2023 includes \$96,019,000.00 in OOC enacted budget. FY 2024 includes \$17,956,000.00 for the OOC budget request.

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Department of Defense
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 DoD Component Summary
 (Dollars in Thousands)

Mar 2023

<u>Appropriation Summary</u>	FY 2022	FY 2023 Less	FY 2023	FY 2023 Total	FY 2024
	Actuals	Supplementals Enactment	Supplementals Enactment*	Enactment	Request
Procurement of Weapons and Tracked Combat Vehicles, Army	5,252,894	4,505,157		4,505,157	3,765,521
Total Department of the Army	5,252,894	4,505,157		4,505,157	3,765,521
Grand Total Department of Defense	5,252,894	4,505,157		4,505,157	3,765,521

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Department of the Army
FY 2024 President's Budget
Exhibit P-1 FY 2024 President's Budget
Total Obligational Authority
Army Summary
(Dollars in Thousands)

Mar 2023

<u>Appropriation Summary</u>	<u>FY 2022</u> <u>Actuals</u>	<u>FY 2023 Less</u> <u>Supplementals</u> <u>Enactment</u>	<u>FY 2023</u> <u>Supplementals</u> <u>Enactment'</u>	<u>FY 2023 Total</u> <u>Enactment</u>	<u>FY 2024</u> <u>Request</u>
Procurement of Weapons and Tracked Combat Vehicles, Army	5,252,894	4,505,157		4,505,157	3,765,521
Total Department of the Army	5,252,894	4,505,157		4,505,157	3,765,521

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Department of the Army
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 2033A BA Summary
 (Dollars in Thousands)

Mar 2023

Appropriation: Procurement of Weapons and Tracked Combat Vehicles, Army	FY 2022	FY 2023 Less	FY 2023	FY 2023 Total	FY 2024
	Actuals	Supplementals Enactment	Supplementals Enactment	Enactment	Request
<u>Budget Activity</u>					
01. Tracked combat vehicles	4,846,149	3,990,456		3,990,456	3,288,523
02. Weapons and other combat vehicles	406,745	514,701		514,701	476,998
Total Procurement of Weapons and Tracked Combat Vehicles, Army	5,252,894	4,505,157		4,505,157	3,765,521

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Department of the Army
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 2033A Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 2033 Procurement of Weapons and Tracked Combat V				FY 2022 Actuals		FY 2023 Less Supplementals Enactment		FY 2023 Supplementals Enactment	
Line No	Item Nomenclature	Ident Code	Se c	Quantity	Cost	Quantity	Cost	Quantity	Cost
<u>Budget Activity 01: Tracked combat vehicles</u>									
Tracked Combat Vehicles									
1	Armored Multi Purpose Vehicle (AMPV)	A	U		950,366	43	380,677		
2	ASSAULT BREACHER VEHICLE (ABV)	A	U		16,454		3,852		
3	Mobile Protected Firepower		U	23	286,977	29	354,708		
Modification of Tracked Combat Vehicles									
4	Stryker Upgrade	A	U	228	1,082,828	180	891,171		
5	BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE	A	U						
6	Bradley Program (MOD)	A	U		460,385		260,398		
7	M109 FOV Modifications	A	U		333		3,028		
8	Paladin Integrated Management (PIM)	A	U	43	662,900	43	680,089		
9	IMPROVED RECOVERY VEHICLE (M88 HERCULES)	A	U		51,725	21	132,203		

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Department of the Army
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 2033A Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 2033 Procurement of Weapons and Tracked Combat V				FY 2023 Total Enactment		FY 2024 Request	
Line		Ident	Se				
No	Item Nomenclature	Code	c	Quantity	Cost	Quantity	Cost
Budget Activity 01: Tracked combat vehicles							
Tracked Combat Vehicles							
1	Armored Multi Purpose Vehicle (AMPV)	A	U	43	380,677	91	554,777
2	ASSAULT BREACHER VEHICLE (ABV)	A	U		3,852		
3	Mobile Protected Firepower		U	29	354,708	33	394,635
Modification of Tracked Combat Vehicles							
4	Stryker Upgrade	A	U	180	891,171	85	614,282
5	BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE	A	U			128	5,232
6	Bradley Program (MOD)	A	U		260,398		158,274
7	M109 FOV Modifications	A	U		3,028		90,986
8	Paladin Integrated Management (PIM)	A	U	43	680,089	24	469,152
9	IMPROVED RECOVERY VEHICLE (M88 HERCULES)	A	U	21	132,203	0	41,058

UNCLASSIFIED

Department of the Army
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 2033A Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 2033 Procurement of Weapons and Tracked Combat V			FY 2022 Actuals		FY 2023 Less Supplementals Enactment		FY 2023 Supplementals Enactment		
Line No	Item Nomenclature	Ident Code	Se c	Quantity	Cost	Quantity	Cost	Quantity	Cost
10	Assault Bridge (Mod)		U		2,136				
11	M88 FOV MODS	A	U		334				
12	Joint Assault Bridge	A	U	17	110,588	6	36,990		
13	Abrams Upgrade Program Advance Procurement (CY)	A	U	90	1,145,837	90	1,247,340		
14	Abrams Upgrade Program C (FY 2024 for FY 2025) (M)								
15	VEHICLE PROTECTION SYSTEMS (VPS)		U		75,286				
Total Tracked combat vehicles				401	4,846,149	412	3,990,456		

Budget Activity 02: Weapons and other combat vehicles

Weapons & Other Combat Vehicles

16	Personal Defense Weapon (Roll)	A	U		7,000				
17	M240 Medium Machine Gun (7.62mm)	A	U		11,017		10,500		

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

UNCLASSIFIED

Department of the Army
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 2033A Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 2033 Procurement of Weapons and Tracked Combat V				FY 2023 Total Enactment		FY 2024 Request	
Line No	Item Nomenclature	Ident Code	Se c	Quantity	Cost	Quantity	Cost
10	Assault Bridge (Mod)		U				
11	M88 FOV MODS	A	U				
12	Joint Assault Bridge	A	U	6	36,990	24	159,804
13	Abrams Upgrade Program Advance Procurement (CY)	A	U	90	1,247,340	34	697,883 102,440
14	Abrams Upgrade Program C (FY 2024 for FY 2025) (M)						(102,440)
15	VEHICLE PROTECTION SYSTEMS (VPS)		U				
Total Tracked combat vehicles				412	3,990,456	419	3,288,523
<u>Budget Activity 02: Weapons and other combat vehicles</u>							
Weapons & Other Combat Vehicles							
16	Personal Defense Weapon (Roll)	A	U			100	510
17	M240 Medium Machine Gun (7.62mm)	A	U		10,500		425

UNCLASSIFIED

Department of the Army
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 2033A Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 2033 Procurement of Weapons and Tracked Combat V				FY 2022 Actuals		FY 2023 Less Supplementals Enactment		FY 2023 Supplementals Enactment	
Line No	Item Nomenclature	Ident Code	Se c	Quantity	Cost	Quantity	Cost	Quantity	Cost
18	MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON S	A	U		31,623		26,627		
19	Machine Gun, Cal .50 M2 Roll	A	U						
20	Mortar Systems		U		33,240		8,516		
21	LOCATION & AZIMUTH DETERMINATION SYSTEM (LADS	A	U				48,301		
22	XM320 Grenade Launcher Module (GLM)	A	U		13,934		11,703		
23	Precision Sniper Rifle	A	U		9,505		6,436		
24	Carbine	A	U		7,226				
25	Next Generation Squad Weapon	A	U		97,087		166,623		
26	Handgun	A	U		4,930				
Mod of Weapons and Other Combat Veh									
27	MK-19 Grenade Machine Gun MODS		U		35,121				
28	M777 Mods	A	U		16,576		3,374		

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

UNCLASSIFIED

Department of the Army
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 2033A Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 2033 Procurement of Weapons and Tracked Combat V				FY 2023 Total Enactment		FY 2024 Request	
Line No	Item Nomenclature	Ident Code	Se c	Quantity	Cost	Quantity	Cost
18	MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON S	A	U		26,627		
19	Machine Gun, Cal .50 M2 Roll	A	U				3,420
20	Mortar Systems		U		8,516		8,013
21	LOCATION & AZIMUTH DETERMINATION SYSTEM (LADS	A	U		48,301		3,174
22	XM320 Grenade Launcher Module (GLM)	A	U		11,703		14,143
23	Precision Sniper Rifle	A	U		6,436		5,248
24	Carbine	A	U				571
25	Next Generation Squad Weapon	A	U		166,623		292,850
26	Handgun	A	U				32
Mod of Weapons and Other Combat Veh							
27	MK-19 Grenade Machine Gun MODS		U				
28	M777 Mods	A	U		3,374		18,920

UNCLASSIFIED

Department of the Army
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 2033A Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 2033 Procurement of Weapons and Tracked Combat V				FY 2022 Actuals		FY 2023 Less Supplementals Enactment		FY 2023 Supplementals Enactment	
Line No	Item Nomenclature	Ident Code	Se c	Quantity	Cost	Quantity	Cost	Quantity	Cost'
29	M2 50 Cal Machine Gun MODS	B	U		7,076		3,000		
30	Sniper Rifles Modifications		U		80				
31	M119 Modifications	A	U				2,263		
32	Mortar Modification	A	U						
Support Equipment & Facilities									
33	Items Less Than \$5.0m (WOCV-WTCV)		U		13,826		2,138		
34	Production Base Support (WOCV-WTCV)		U		118,504		225,220		
Total Weapons and other combat vehicles					406,745		514,701		
Total Procurement of Weapons and Tracked Combat Vehicles, Army				401	5,252,894	412	4,505,157		

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

UNCLASSIFIED

Department of the Army
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 2033A Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 2033 Procurement of Weapons and Tracked Combat V				FY 2023 Total Enactment		FY 2024 Request	
Line		Ident	Se				
No	Item Nomenclature	Code	c	Quantity	Cost	Quantity	Cost
29	M2 50 Cal Machine Gun MODS	B	U		3,000		
30	Sniper Rifles Modifications		U				
31	M119 Modifications	A	U		2,263		13,097
32	Mortar Modification	A	U				423
Support Equipment & Facilities							
33	Items Less Than \$5.0m (WOCV-WTCV)		U		2,138		1,148
34	Production Base Support (WOCV-WTCV)		U		225,220		115,024
Total Weapons and other combat vehicles					514,701	100	476,998
Total Procurement of Weapons and Tracked Combat Vehicles, Army					412	4,505,157	519 3,765,521

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Army • Budget Estimates FY 2024 • Procurement

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

Appropriation 2033A: Procurement of W&TCV, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
1	01	10	2944G80819	Armored Multi Purpose Vehicle (AMPV).....	Volume 1 - 1
2	01	10	4872G84900	ASSAULT BREACHER VEHICLE (ABV).....	Volume 1 - 10
3	01	10	7181G80820	Mobile Protected Firepower.....	Volume 1 - 12
4	01	20	0363G85200	Stryker Upgrade.....	Volume 1 - 24
5	01	20	1382GZ3300	BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE.....	Volume 1 - 41
6	01	20	1678GZ2400	Bradley Program (MOD).....	Volume 1 - 46
7	01	20	2072GA0400	M109 FOV Modifications.....	Volume 1 - 65
8	01	20	2073GZ0410	Paladin Integrated Management (PIM).....	Volume 1 - 86
9	01	20	3700GA0570	IMPROVED RECOVERY VEHICLE (M88 HERCULES).....	Volume 1 - 96
10	01	20	4520GZ3250	Assault Bridge (Mod).....	Volume 1 - 102
11	01	20	5129G80571	M88 FOV MODS.....	Volume 1 - 103
12	01	20	5225GZ3001	Joint Assault Bridge.....	Volume 1 - 104
13	01	20	6500GA0750	Abrams Upgrade Program.....	Volume 1 - 112
14	01	20	6500GA0750	Abrams Upgrade Program, Advance Procurement.....	Volume 1 - 123
15	01	20	6652GM1900	VEHICLE PROTECTION SYSTEMS (VPS).....	Volume 1 - 127

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2024 • Procurement

Appropriation 2033A: Procurement of W&TCV, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
16	02	10	0418GN0003	PERSONAL DEFENSE WEAPON (ROLL).....	Volume 1 - 129
17	02	10	2472G13000	M240 Medium Machine Gun (7.62mm).....	Volume 1 - 131
18	02	10	3736G13101	MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM.....	Volume 1 - 133
19	02	10	5000GB2000	Machine Gun, Cal .50 M2 Roll.....	Volume 1 - 139
20	02	10	6580G02200	Mortar Systems.....	Volume 1 - 141
21	02	10	6659G08100	LOCATION & AZIMUTH DETERMINATION SYSTEM (LADS).....	Volume 1 - 147
22	02	10	8181G01501	XM320 Grenade Launcher Module (GLM).....	Volume 1 - 149
23	02	10	8190G01506	Precision Sniper Rifle.....	Volume 1 - 155
24	02	10	8201G13501	Carbine.....	Volume 1 - 161
25	02	10	8205G14510	Next Generation Squad Weapon.....	Volume 1 - 163
26	02	10	8635G15325	Handgun.....	Volume 1 - 187
27	02	20	3000GB3000	MK-19 Grenade Machine Gun MODS.....	Volume 1 - 188
28	02	20	3005GZ1700	M777 Mods.....	Volume 1 - 190
29	02	20	3015GB4000	M2 50 Cal Machine Gun MODS.....	Volume 1 - 198
30	02	20	3181GZ1500	Sniper Rifles Modifications.....	Volume 1 - 200
31	02	20	3640GC0401	M119 Modifications.....	Volume 1 - 202

UNCLASSIFIED

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Army • Budget Estimates FY 2024 • Procurement

Appropriation 2033A: Procurement of W&TCV, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
32	02	20	7054G02100	Mortar Modification.....	Volume 1 - 218
33	02	30	1862GL3200	Items Less Than \$5.0m (WOCV-WTCV).....	Volume 1 - 220
34	02	30	3270GC0050	Production Base Support (WOCV-WTCV).....	Volume 1 - 222

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2024 • Procurement

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

Line Item Title	Line Item Number	Line #	BA	BSA	Page
ASSAULT BREACHER VEHICLE (ABV)	4872G84900	2	01	10.....	Volume 1 - 10
Abrams Upgrade Program	6500GA0750	13	01	20.....	Volume 1 - 112
Abrams Upgrade Program, Advance Procurement	6500GA0750	14	01	20.....	Volume 1 - 123
Armored Multi Purpose Vehicle (AMPV)	2944G80819	1	01	10.....	Volume 1 - 1
Assault Bridge (Mod)	4520GZ3250	10	01	20.....	Volume 1 - 102
BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE	1382GZ3300	5	01	20.....	Volume 1 - 41
Bradley Program (MOD)	1678GZ2400	6	01	20.....	Volume 1 - 46
Carbine	8201G13501	24	02	10.....	Volume 1 - 161
Handgun	8635G15325	26	02	10.....	Volume 1 - 187
IMPROVED RECOVERY VEHICLE (M88 HERCULES)	3700GA0570	9	01	20.....	Volume 1 - 96
Items Less Than \$5.0m (WOCV-WTCV)	1862GL3200	33	02	30.....	Volume 1 - 220
Joint Assault Bridge	5225GZ3001	12	01	20.....	Volume 1 - 104
LOCATION & AZIMUTH DETERMINATION SYSTEM (LADS)	6659G08100	21	02	10.....	Volume 1 - 147
M109 FOV Modifications	2072GA0400	7	01	20.....	Volume 1 - 65
M119 Modifications	3640GC0401	31	02	20.....	Volume 1 - 202
M2 50 Cal Machine Gun MODS	3015GB4000	29	02	20.....	Volume 1 - 198
M240 Medium Machine Gun (7.62mm)	2472G13000	17	02	10.....	Volume 1 - 131

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2024 • Procurement

Line Item Title	Line Item Number	Line #	BA	BSA	Page
M777 Mods	3005GZ1700	28	02	20.....	Volume 1 - 190
M88 FOV MODS	5129G80571	11	01	20.....	Volume 1 - 103
MK-19 Grenade Machine Gun MODS	3000GB3000	27	02	20.....	Volume 1 - 188
MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM	3736G13101	18	02	10.....	Volume 1 - 133
Machine Gun, Cal .50 M2 Roll	5000GB2000	19	02	10.....	Volume 1 - 139
Mobile Protected Firepower	7181G80820	3	01	10.....	Volume 1 - 12
Mortar Modification	7054G02100	32	02	20.....	Volume 1 - 218
Mortar Systems	6580G02200	20	02	10.....	Volume 1 - 141
Next Generation Squad Weapon	8205G14510	25	02	10.....	Volume 1 - 163
PERSONAL DEFENSE WEAPON (ROLL)	0418GN0003	16	02	10.....	Volume 1 - 129
Paladin Integrated Management (PIM)	2073GZ0410	8	01	20.....	Volume 1 - 86
Precision Sniper Rifle	8190G01506	23	02	10.....	Volume 1 - 155
Production Base Support (WOCV-WTCV)	3270GC0050	34	02	30.....	Volume 1 - 222
Sniper Rifles Modifications	3181GZ1500	30	02	20.....	Volume 1 - 200
Stryker Upgrade	0363G85200	4	01	20.....	Volume 1 - 24
VEHICLE PROTECTION SYSTEMS (VPS)	6652GM1900	15	01	20.....	Volume 1 - 127
XM320 Grenade Launcher Module (GLM)	8181G01501	22	02	10.....	Volume 1 - 149

UNCLASSIFIED

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Army • Budget Estimates FY 2024 • Procurement
Exhibit P-1M, Procurement Programs - Modification Summary
(Listing by Model)

Lookup Matrix by Model

Model:	M2 & M3 Bradley Vehicle Variants	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
GZ2400	Bradley Program (MOD)	No

Model:	M109 Howitzer and M992 FAASV/CAT Vehicles	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
GA0400	M109 FOV Modifications	No

Model:	M777A2	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
GZ1700	M777 Mods	No

Model:	M119A3 Howitzer	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
GC0401	M119 Modifications	No

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Army • Budget Estimates FY 2024 • Procurement
 Exhibit P-1M, Procurement Programs - Modification Summary
 (Funding for Modifications)

Funding (\$ M)

P-3a Modification Title	PYS	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Exhibit P-3a										
Bradley Program (MOD)	6,738.018	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154
M109 FOV Modifications	2,198.238	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-
M777 Mods	165.045	16.576	3.374	18.920	-	18.920	20.014	2.424	1.556	1.557
M119 Modifications	396.741	-	2.263	13.097	-	13.097	7.450	1.258	1.209	1.210
Totals (Total Obligation Authority)										
Total Obligation Authority	9,498.042	477.294	269.063	281.277	0.000	281.277	205.059	152.781	103.901	106.921

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 10: Tracked Combat Vehicles

P-1 Line Item Number / Title:
 2944G80819 / Armored Multi Purpose Vehicle (AMPV)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0605028A

Line Item MDAP/MAIS Code: 471

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	447	0	43	91	-	91	88	101	76	96	1,801	2,743
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,494.534	950.366	380.677	554.777	-	554.777	561.462	631.904	513.920	613.453	14,094.908	19,796.001
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,494.534	950.366	380.677	554.777	-	554.777	561.462	631.904	513.920	613.453	14,094.908	19,796.001
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,494.534	950.366	380.677	554.777	-	554.777	561.462	631.904	513.920	613.453	14,094.908	19,796.001

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	3,343.477	-	8,852.953	6,096.451	-	6,096.451	6,380.250	6,256.475	6,762.105	6,390.135	7,826.157	7,216.916

Description:

The Armored Multi-Purpose Vehicle (AMPV) is the materiel solution for replacement of the Army's Armored Personnel Carrier (M113) Family of Vehicles (FoV) within the Armored Brigade Combat Team (ABCT).

This line is directly aligned to the Army Next Generation Combat Vehicle Modernization Priority.

It will mitigate current and future capability gaps in force protection, mobility, reliability, and interoperability across the Spectrum of Conflict. The AMPV will replace five mission roles currently performed by the M113 Family of Vehicles by transferring the current M113 Mission Equipment Packages (MEP) to a new Military Vehicle Derivative (MVD) platform.

In total, the AMPV Family of Vehicles will account for approximately 30% of the Armored Brigade Combat Team's tracked fleet and consists of the following five variants:

1. Mission Command (MCcmd) Variant: This platform enables effective mission command planning and execution for both the Tactical Operations Center (TOC) and Tactical Command Vehicle (TAC) versions of the Mission Command Variant. It will host current Battle Command Systems, future replacements, and upgrades of hardware and software.
2. Medical Treatment (MT) Variant: This platform will provide a protected surgical environment, with adequate lighting and accessible medical equipment. It will provide a capability for immediate medical care for one patient by a medical crew of four.
3. Medical Evacuation (ME) Variant: This platform will conduct ambulance type activities and provide casualty evacuation for up to four litter (tactical stretcher) or six ambulatory patients, with a crew of three medical attendants.
4. General Purpose (GP) Variant: This platform will operate throughout the battle space by conducting re-supply, maintenance, casualty evacuation, and other tasks within the formation.
5. Mortar Carrier (MC) Variant: This platform will provide immediate responsive fire support to conduct fast-paced offensive operations.
6. Procuring AMPV vehicles to support Terrestrial Layered System (TLS) Program for Project Manager (PM) Electronic Warfare and Cyber.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 10: Tracked Combat Vehicles
P-1 Line Item Number / Title: 2944G80819 / Armored Multi Purpose Vehicle (AMPV)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0605028A

Line Item MDAP/MAIS Code: 471

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	43	91	-	91	88	101	76	96
	Total Obligation Authority	950.366	380.677	554.777	-	554.777	561.462	631.904	513.920	613.453
Total: Secondary Distribution	Quantity	-	43	91	-	91	88	101	76	96
	Total Obligation Authority	950.366	380.677	554.777	-	554.777	561.462	631.904	513.920	613.453

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 10: Tracked Combat Vehicles

P-1 Line Item Number / Title:
 2944G80819 / Armored Multi Purpose Vehicle (AMPV)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0605028A

Line Item MDAP/MAIS Code: 471

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	G80819 / Armored Multi Purpose Vehicle (AMPV)	P-5a, P-21	A		447 / 1,494.534	0 / 950.366	43 / 380.677	91 / 554.777	- / -	91 / 554.777
P-40	Total Gross/Weapon System Cost				447 / 1,494.534	0 / 950.366	43 / 380.677	91 / 554.777	- / -	91 / 554.777

*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 2024 procurement dollars in the amount of \$554.777 million procures 91 Armored Multi-Purpose Vehicles (AMPVs). Accordingly, FY 2024 procurement covers government engineering, logistics, testing and program management efforts. It also includes purchase of Government Furnished Equipment, Government Furnished Material, and kits. Funding supports improvements to meet performance specification requirements, user requested system enhancements stemming from the July 2022 Initial Operational Test, and obsolescence management to identify and mitigate diminishing manufacturing and material sources to enable uninterrupted production. Finally, funding supports fleet modifications that address changes to the vehicle configurations, retrofit of previously procured hardware and improvements. AMPV will mitigate current and future capability gaps in force protection, mobility, reliability, and interoperability across the Spectrum of Conflict.

Please note: FY 2024 AMPV quantities are draft and subject to change pending final FY 2023 Full Rate Production (FRP) contract/final negotiated pricing as well as impact of/if additional procurement/economies of scale.

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.

Army Acquisition Objective (AAO): 2897 vehicles

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10	P-1 Line Item Number / Title: 2944G80819 / Armored Multi Purpose Vehicle (AMPV)	Item Number / Title [DODIC]: G80819 / Armored Multi Purpose Vehicle (AMPV)

ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:					
Resource Summary				Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)				447	0	43	91	-	91
Gross/Weapon System Cost (\$ in Millions)				1,494.534	950.366	380.677	554.777	-	554.777
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)				1,494.534	950.366	380.677	554.777	-	554.777
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)				1,494.534	950.366	380.677	554.777	-	554.777
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)				3,343.477	-	8,852.953	6,096.451	-	6,096.451

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Recurring Cost																		
Vehicle Manufacturing - Contractor ^(t)	3,082.436	447	1,377.849	4,929.630	154	759.163	6,221.163	43	267.510	4,219.736	91	383.996	-	-	-	4,219.736	91	383.996
Government Furnished Material (GFM)	-	-	-	-	-	107.857	-	-	30.114	-	-	64.769	-	-	-	-	-	64.769
Engineering Change Orders	-	-	20.462	-	-	8.519	-	-	16.858	-	-	21.611	-	-	-	-	-	21.611
Sys Eng / Prog Mgmt (Government)	-	-	46.852	-	-	17.150	-	-	23.546	-	-	25.687	-	-	-	-	-	25.687
Sys Test & Evaluation (Government)	-	-	-	-	-	1.439	-	-	2.534	-	-	2.770	-	-	-	-	-	2.770
Training Devices	-	-	17.644	-	-	10.363	-	-	1.013	-	-	1.385	-	-	-	-	-	1.385
Total Package Fielding (TPF)	-	-	22.090	-	-	15.463	-	-	17.380	-	-	31.098	-	-	-	-	-	31.098
System Technical Support (STS)	-	-	9.637	-	-	30.412	-	-	21.722	-	-	23.461	-	-	-	-	-	23.461
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>1,494.534</i>	<i>-</i>	<i>-</i>	<i>950.366</i>	<i>-</i>	<i>-</i>	<i>380.677</i>	<i>-</i>	<i>-</i>	<i>554.777</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>554.777</i>
<i>Subtotal: Flyaway Cost</i>	<i>-</i>	<i>-</i>	<i>1,494.534</i>	<i>-</i>	<i>-</i>	<i>950.366</i>	<i>-</i>	<i>-</i>	<i>380.677</i>	<i>-</i>	<i>-</i>	<i>554.777</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>554.777</i>
Gross/Weapon System Cost	3,343.477	447	1,494.534	-	0	950.366	8,852.953	43	380.677	6,096.451	91	554.777	-	-	-	6,096.451	91	554.777

Remarks:

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10	P-1 Line Item Number / Title: 2944G80819 / Armored Multi Purpose Vehicle (AMPV)	Item Number / Title [DODIC]: G80819 / Armored Multi Purpose Vehicle (AMPV)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Army Acquisition Objective (AAO): 2897 vehicles. To date, the AMPV program has 447 production vehicles on contract with BAE Systems.

FY 2022 production contract procures 154 vehicles. FY 2022 quantity data will be updated to reflect the total quantity of 154 when the database reopens to update for actual execution prior to the FY 2025 President's Budget.

FY 2024 AMPV quantities are subject to change pending final FY 2023 Full Rate Production (FRP) contract/final negotiated pricing as well as impact of/if additional procurement/economies of scale.

FY 2024 Minimum Sustaining Rate is five 5 per month and the Maximum Sustaining Rate is approximately 16-17 per month.

The Vehicle Manufacturing cost element increased from prior year to \$383.996 million to procure 91 full rate production vehicles.

The Gov't Furnished Material cost element increased to \$64.769 million to procure engines, transmissions, and additional parts required to furnish 91 full rate production vehicles.

The Engineering Change Orders cost element of \$21.611 million addresses user requested changes stemming from Low Rate Initial Production (LRIP) and Initial Operational Testing (IOT).

The Sys Eng. / Prog Mgmt. cost element increased to \$25.687 million as the program transitioned to the Full Rate Production and Deployment phase and ramping up production rates in FY 2024.

The Sys Test & Evaluation cost element holds consistent at \$2.770 million to support follow on production testing to ensure vehicles received from the production line are meeting quality standards.

The Training Device cost element holds consistent at \$1.385 million to update training devices to the latest vehicle configuration.

The Total Packaging Fielding cost element increased to \$31.098 million. The primary increase is due to the program fielding AMPVs to (5) different fielding sites in FY 2024 as well as the need for interim supply support Contractor Logistic Support (CLS) until the Defense Logistics Agency (DLA) can fully support all AMPV unique parts. DLA is expected to be onboard to organically support by FY 2026. This cost element provides fielding team support, training material refinement, initial spare parts to support the Army's fielding plans.

The System Technical Support cost element increased to \$23.461 million. This cost element provides support to full rate production in FY 2024, as well as identify production process improvements, manage obsolescence, maintain software, fix issues stemming from test, provide logistics support, and perform problem investigations.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	-	43	91	-	91
	Total Obligation Authority	950.366	380.677	554.777	-	554.777
Total: Secondary Distribution	Quantity	0	43	91	-	91
	Total Obligation Authority	950.366	380.677	554.777	-	554.777

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

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army							Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10			P-1 Line Item Number / Title: 2944G80819 / Armored Multi Purpose Vehicle (AMPV)				Item Number / Title [DODIC]: G80819 / Armored Multi Purpose Vehicle (AMPV)					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Vehicle Manufacturing - Contractor ^(†)	✓	2022	BAE Land Systems / York, PA	Option / FPIF	Warren, MI	Feb 2023	Dec 2024	154	4,929.630	N		
Vehicle Manufacturing - Contractor ^(†)		2023	BAE Land Systems / York, PA	Option / FPIF	Warren, MI	Feb 2023	Oct 2025	43	6,221.163	N		
Vehicle Manufacturing - Contractor ^(†)		2024	BAE Land Systems / York, PA	Option / FPIF	Warren, MI	Feb 2024	Jan 2026	91	4,219.736	N		

^(†) indicates the presence of a P-21

Remarks:

FY 2022 production contract procures 154 vehicles. FY 2022 quantity data will be updated to reflect the total quantity of 154 when the database reopens to update for actual execution prior to the FY 2025 President's Budget.

The monthly production rate is expected to increase from the 12 vehicles per month demonstrated in Low Rate Initial Production (LRIP) to approximately 16-17 vehicles per month during Full Rate Production (FRP).

FY 2023 production contract assumes procurement of 43 vehicles and the FY 2024 production contract assumes a procurement of 91 vehicles. Final delivery schedules will be defined at contract award in FY 2023 and no production break is expected at this time.

Additionally, the FY 2024 AMPV quantities are draft and subject to change pending the final FY 2023 Full Rate Production (FRP) contract/final negotiated pricing.

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Exhibit P-21, Production Schedule: PB 2024 Army															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10										P-1 Line Item Number / Title: 2944G80819 / Armored Multi Purpose Vehicle (AMPV)										Item Number / Title [DODIC]: G80819 / Armored Multi Purpose Vehicle (AMPV)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023														Fiscal Year 2024														BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023														Calendar Year 2024														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
Vehicle Manufacturing - Contractor																																			
Prior Years Deliveries: 447																																			
✓	1	2022	ARMY	154	0	154																													154
	1	2023	ARMY	43	0	43																													43
	1	2024	ARMY	91	0	91																													91
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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Exhibit P-21, Production Schedule: PB 2024 Army															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10										P-1 Line Item Number / Title: 2944G80819 / Armored Multi Purpose Vehicle (AMPV)										Item Number / Title [DODIC]: G80819 / Armored Multi Purpose Vehicle (AMPV)									

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2025													Fiscal Year 2026													BALANCE		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	Calendar Year 2025													Calendar Year 2026													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Vehicle Manufacturing - Contractor																																	
Prior Years Deliveries: 447																																	
✓	1	2022	ARMY	154	0	154	-	-	5	12	14	16	16	16	16	16	16	16	11										0				
	1	2023	ARMY	43	0	43	-	-	-	-	-	-	-	-	-	-	-	5	16	16	6								0				
	1	2024	ARMY	91	0	91	-	-	-	-	-	-	-	-	-	-	-	-	-	10	16	16	16	16	16	16	1		0				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10		P-1 Line Item Number / Title: 2944G80819 / Armored Multi Purpose Vehicle (AMPV)
		Item Number / Title [DODIC]: G80819 / Armored Multi Purpose Vehicle (AMPV)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	BAE Land Systems - York, PA	5	10	17	0	10	19	29	0	6	18	24

Remarks:
 There is no production break planned or expected.

FY 2022 production funding procures 154 vehicles. FY 2022 quantity data will be updated to reflect the total quantity of 154 when the database reopens to update for actual execution prior to the FY 2025 President's Budget.

The monthly production rate is expected to increase from the 12 vehicles per month demonstrated in Low Rate Initial Production (LRIP) to approximately 16-17 vehicles per month during Full Rate Production (FRP).

FY 2023 production funding procures 43 vehicles.

FY 2024 production funding is estimated to procure 91 vehicles. The FY 2024 Minimum Sustaining Rate is 5 per month and the Maximum Sustaining Rate is approximately 16-17 per month.

Additionally, the FY 2024 AMPV quantities are draft and subject to change pending the final FY 2023 Full Rate Production (FRP) contract/final negotiated pricing.

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

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

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 10: Tracked Combat Vehicles

P-1 Line Item Number / Title:
 4872G84900 / ASSAULT BREACHER VEHICLE (ABV)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603804A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	36	12	-	-	-	-	12	12	12	-	84
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	16.454	3.852	-	-	-	-	10.181	10.194	10.203	-	50.884
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	16.454	3.852	-	-	-	-	10.181	10.194	10.203	-	50.884
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	16.454	3.852	-	-	-	-	10.181	10.194	10.203	-	50.884

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	457.056	321.000	-	-	-	-	848.417	849.500	850.250	-	605.762

Description:

The Assault Breacher Vehicle (ABV) is a tracked combat engineer vehicle for the Army Armored Brigade Combat Team (ABCT) and Combat Engineer Company - Armor (CEC-A). It is designed to breach minefields and barrier obstacles to enable tanks and infantry of the ABCT to maintain pace in offensive combat operations. The Assault Breacher Vehicle provides crew protection and vehicle survivability equal to the M1A1 Abrams tank hull and has the speed and mobility to keep pace with the armor maneuver force. The Assault Breacher Vehicle hull is an overhauled M1A1 Abrams tank hull with modifications for its mission to support engineer companies within ABCTs and includes two Linear Demolition Charge Systems (modified Mine Clearing Line Charge (MICLC) systems), interchangeable Engineer Breaching System hardware consisting of a Full Width Mine Plow and a Combat Dozer Blade, a Lane Marking System to automatically mark a cleared path behind the Assault Breacher Vehicle and an integrated day/night vision system. The Assault Breacher Vehicle is fabricated at Anniston Army Depot (ANAD).

The Assault Breacher Vehicles' Army Acquisition Objective (AAO) is 201.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	24	12	-	-	-	-	12	12	12
	Total Obligation Authority	11.864	3.852	-	-	-	-	10.181	10.194	10.203
ANG	Quantity	12	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.590	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	36	12	-	-	-	-	12	12	12
	Total Obligation Authority	16.454	3.852	-	-	-	-	10.181	10.194	10.203

Justification:

There is no FY 2024 budget request for this line.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 10: Tracked Combat Vehicles		P-1 Line Item Number / Title: 4872G84900 / ASSAULT BREACHER VEHICLE (ABV)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603804A
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.		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 10: Tracked Combat Vehicles

P-1 Line Item Number / Title:
7181G80820 / Mobile Protected Firepower

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604645A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	23	29	33	-	33	38	37	37	41	113	351
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	286.977	354.708	394.635	-	394.635	558.656	569.125	590.208	620.822	1,840.808	5,215.939
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	286.977	354.708	394.635	-	394.635	558.656	569.125	590.208	620.822	1,840.808	5,215.939
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	286.977	354.708	394.635	-	394.635	558.656	569.125	590.208	620.822	1,840.808	5,215.939

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	12,477.261	12,231.310	11,958.636	-	11,958.636	14,701.474	15,381.757	15,951.568	15,142.000	16,290.336	14,860.225

Description:

Infantry Brigades currently lack the mobile, protected firepower capability necessary to defeat enemy prepared positions, destroy enemy armored vehicles, close with the enemy through fire and maneuver, and ensure freedom of maneuver and action in close contact with the enemy. The Mobile Protected Firepower Procurement funding supports production and fielding of the Mobile Protected Firepower (MPF) system, which will provide the Army's Infantry Brigade Combat Teams (IBCTs) a protected, long range, precision direct-fire capability to ensure freedom of movement during offensive operations and defeat attacking enemy during defensive operations.

On 25 September 2018, the Army Acquisition Executive (AAE) approved the use of Middle Tier Acquisition (MTA) authorities to execute MPF Rapid Prototyping. On 17 December 2018, Rapid Prototyping contracts were awarded to BAE Systems and General Dynamics Land Systems (GDLS). Delivery of MPF prototypes commenced in 3rd Quarter (3Q) FY 2020 and MTA Rapid Prototyping system level testing occurred from 4th Quarter (4Q) FY 2020 to early 2nd Quarter (2Q) FY 2022.

On 24 June 2022, the AAE approved an MPF Milestone C and on 28 June 2022 GDLS was awarded the MPF Low Rate Initial Production (LRIP) contract. During LRIP, the Army will complete evaluation of MPF system performance on production-representative vehicles, verify system operational effectiveness and suitability, establish an initial MPF production base, and execute and orderly production ramp-up leading into MPF Full Rate Production (FRP). A MPF Full Rate Production (FRP) Decision is targeted for 2nd Quarter (2Q) FY 2025 and the MPF First Unit Equipped (FUE) is targeted for 4th Quarter (4Q) 2025.

The Mobile Protected Firepower Army Acquisition Objective (AAO) is 504 systems.

This program element is directly aligned with the Next Generation Combat Vehicle (NGCV) Modernization Priority.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	23	29	33	-	33	14	19	37	28
	Total Obligation Authority	286.977	354.708	394.635	-	394.635	205.821	292.253	590.208	423.976
ANG	Quantity	-	-	-	-	-	24	18	-	13
	Total Obligation Authority	-	-	-	-	-	352.835	276.872	-	196.846

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army							Date: March 2023		
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 10: Tracked Combat Vehicles					P-1 Line Item Number / Title: 7181G80820 / Mobile Protected Firepower				
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: 0604645A			
Line Item MDAP/MAIS Code: N/A									

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Total:	Quantity	23	29	33	-	33	38	37	37	41
Secondary Distribution	Total Obligation Authority	286.977	354.708	394.635	-	394.635	558.656	569.125	590.208	620.822

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 10: Tracked Combat Vehicles

P-1 Line Item Number / Title:
7181G80820 / Mobile Protected Firepower

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604645A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	G80820 / Mobile Protected Firepower	P-5a, P-21	A		- / -	23 / 286.977	29 / 354.708	33 / 394.635	- / -	33 / 394.635
P-40	Total Gross/Weapon System Cost				- / -	23 / 286.977	29 / 354.708	33 / 394.635	- / -	33 / 394.635

*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 2024 Base Procurement dollars in the amount of \$394.635 million supports the production of 33 Low Rate Initial Production (LRIP) Mobile Protected Firepower (MPF) systems, purchase of MPF Initial Spares and Special Tools (ISST), procurement of Systems Technical Support (STS), build of MPF Training Aids, Devices, Simulators, and Simulations (TADSS), and performance of Government Program Management of system production and fielding activities.

Production: In FY 2024, 33 MPF LRIP vehicles will be procured to provide 14 vehicles to Training and Doctrine Command (TRADOC) for institutional training, enable fielding of two MPF company sets to the second MPF-equipped Infantry Battalion, and to facilitate an orderly production ramp up to Full Rate Production (FRP). MPF Production includes the Contractor-Furnished End-Item delivered by General Dynamics Land Systems (GDLS), as well as Government Furnished Property. Primary production activities will occur in Lima, Ohio (turret fabrication); Saginaw, Michigan (hull fabrication); and Anniston, Alabama (final assembly).

Initial Spares and Special Tools: Includes Authorized Stockage List (ASL), Spares Acquisition Integrated with Production (SAIP), Special tools and Test Equipment (STTE), and Test, Measurement, and Diagnostic Equipment (TMDE) to support MPF Total Package Fielding (TPF) and New Equipment Training. ASL provides an MPF equipped unit with 60 days of parts necessary to initially sustain the vehicles during fielding and ensure readiness subsequent to fielding. SAIP will prime Army wholesale level supply stocks with MPF spare parts needed to sustain the MPF until replenishment can be accomplished based on spares demands from MPF equipped units. STTE will provide MPF maintainers with required capabilities at the field level beyond those found in the Army's common tools. TMDE includes diagnostic and prognostic equipment; semiautomatic and automated test equipment, to include test program set and calibration test or measurement equipment to perform fault isolation and system diagnostics.

Systems Technical Support (STS): Includes System Engineering, Logistics Engineering, Software Maintenance, and Prime Contractor Program Management. Systems Engineering includes development of engineering changes, obsolescence management to identify material shortages and loss of manufacturing sources, cyber security assessments, and Configuration Management of the MPF Technical Data Package (TDP). Logistics Engineering includes technical and operator manual updates, provisioning updates, and supportability analysis of design changes to the MPF system. Software Maintenance includes software updates for engineering changes, software licenses, and modification of existing software to address emerging cybersecurity issues and maintain MPF system interoperability. Contractor Program Management includes STS contract administration, STS cost and schedule management, and development of contract deliverables and reporting.

Training Devices: Includes procurement of Crew Module Unit Player (CMUR) and Vehicle Tactical Engagement Simulation System (VTESS) kits to support the FY 2025 MPF First Unit Equipped (FUE).

Program Management: Includes salaries, travel, training, supplies, facilities, equipment, and support contractors to perform contracting, engineering, logistics, and operations activities to support LRIP Phase vehicle production, initial spares procurement, training device production, and STS.

Army Acquisition Objective (AAO): 504 vehicles.

This funding line is directly aligned to the Army Next Generation Combat Vehicle (NGCV) Modernization Priority.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 10: Tracked Combat Vehicles		P-1 Line Item Number / Title: 7181G80820 / Mobile Protected Firepower
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604645A

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.

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Exhibit P-5, Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10	P-1 Line Item Number / Title: 7181G80820 / Mobile Protected Firepower	Item Number / Title [DODIC]: G80820 / Mobile Protected Firepower
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ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:			
Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	
Procurement Quantity (<i>Units in Each</i>)	-	23	29	33	-	33	
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	286.977	354.708	394.635	-	394.635	
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	286.977	354.708	394.635	-	394.635	
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	
Total Obligation Authority (<i>\$ in Millions</i>)	-	286.977	354.708	394.635	-	394.635	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	12,477.261	12,231.310	11,958.636	-	11,958.636	

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Non Recurring Cost																		
System Technical Support	-	-	-	-	-	0.144	-	-	15.305	-	-	23.673	-	-	-	-	-	23.673
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	<i>0.144</i>	-	-	<i>15.305</i>	-	-	<i>23.673</i>	-	-	-	-	-	<i>23.673</i>
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	<i>0.144</i>	-	-	<i>15.305</i>	-	-	<i>23.673</i>	-	-	-	-	-	<i>23.673</i>
Hardware Cost																		
Recurring Cost																		
Production - Contractor Furnished End Item ⁽¹⁾	-	-	12,163.783	23	279.767	11,128.172	29	322.717	10,142.848	33	334.714	-	-	-	10,142.848	33	334.714	
Production - Government Furnished Equipment	-	-	-	-	0.606	-	-	1.160	-	-	1.477	-	-	-	-	-	-	1.477
<i>Subtotal: Recurring Cost</i>	-	-	-	-	<i>280.373</i>	-	-	<i>323.877</i>	-	-	<i>336.191</i>	-	-	-	-	-	-	<i>336.191</i>
<i>Subtotal: Hardware Cost</i>	-	-	-	-	<i>280.373</i>	-	-	<i>323.877</i>	-	-	<i>336.191</i>	-	-	-	-	-	-	<i>336.191</i>
Package Fielding Cost																		
Recurring Cost																		
Initial Spares and Special Tools	-	-	-	-	3.325	-	-	5.368	-	-	17.660	-	-	-	-	-	-	17.660
<i>Subtotal: Recurring Cost</i>	-	-	-	-	<i>3.325</i>	-	-	<i>5.368</i>	-	-	<i>17.660</i>	-	-	-	-	-	-	<i>17.660</i>
<i>Subtotal: Package Fielding Cost</i>	-	-	-	-	<i>3.325</i>	-	-	<i>5.368</i>	-	-	<i>17.660</i>	-	-	-	-	-	-	<i>17.660</i>

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Exhibit P-5, Cost Analysis: PB 2024 Army												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10						P-1 Line Item Number / Title: 7181G80820 / Mobile Protected Firepower						Item Number / Title [DODIC]: G80820 / Mobile Protected Firepower					
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Logistics Cost																		
Non Recurring Cost																		
Training Devices - Production	-	-	-	-	-	-	-	-	-	-	-	8.032	-	-	-	-	-	8.032
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	8.032	-	-	-	-	-	8.032
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	-	-	-	8.032	-	-	-	-	-	8.032
Support - Program Management Cost																		
Government Management	-	-	-	-	-	3.135	-	-	10.159	-	-	9.079	-	-	-	-	-	9.079
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	3.135	-	-	10.159	-	-	9.079	-	-	-	-	-	9.079
Gross/Weapon System Cost	-	-	-	12,477.261	23	286.977	12,231.310	29	354.708	11,958.636	33	394.635	-	-	-	11,958.636	33	394.635

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

Cost Element Breakout	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
System Technical Support	-	-	-	-	-	0.144	-	-	15.305	-	-	23.673	-	-	-	-	-	23.673
Systems Technical Support - Contractor Program Management	-	-	-	-	-	0.144	-	-	0.144	-	-	0.150	-	-	-	-	-	0.150
Systems Technical Support - Systems Engineering and Logistics Engineering	-	-	-	-	-	-	-	-	15.161	-	-	23.523	-	-	-	-	-	23.523

Remarks:

FY 2024 Base Procurement dollars will procure 33 Mobile Protected Firepower (MPF) vehicles.

Government Program Management: Includes salaries, travel, training, supplies, facilities, equipment, and support contractors necessary to manage contracting, engineering, logistics, and operations activities to support Low Rate Initial Production (LRIP) Phase vehicle production, training device production, Systems Technical Support (STS), and fielding efforts.

Based on actual execution of the program FY 2022 quantities are now 22 and will be updated prior to the submission of the FY 2025 budget submission.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	23	29	33	-	33

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Exhibit P-5, Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10	P-1 Line Item Number / Title: 7181G80820 / Mobile Protected Firepower	Item Number / Title [DODIC]: G80820 / Mobile Protected Firepower
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Total Obligation Authority	286.977	354.708	394.635	-	394.635
Total:					
Secondary Distribution	Quantity	23	29	33	33
Total Obligation Authority	286.977	354.708	394.635	-	394.635

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

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army								Date: March 2023				
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10			P-1 Line Item Number / Title: 7181G80820 / Mobile Protected Firepower					Item Number / Title [DODIC]: G80820 / Mobile Protected Firepower				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Production - Contractor Furnished End Item ^(†)		2022	General Dynamics Land Systems / Various	Option / FPIF	Army Contracting Command - Warren, Michigan	Jun 2022	Nov 2023	23	12,163.783	N		
Production - Contractor Furnished End Item ^(†)		2023	General Dynamics Land Systems / Various	Option / FPIF	Army Contracting Command - Warren, Michigan	May 2023	Nov 2024	29	11,128.172	N		
Production - Contractor Furnished End Item ^(†)		2024	General Dynamics Land Systems / Various	Option / FPIF	Army Contracting Command - Warren, Michigan	Apr 2024	Nov 2025	33	10,142.848	N		

^(†) indicates the presence of a P-21

Remarks:

In December 2018, contracts for Mobile Protected Firepower (MPF) Rapid Prototyping were awarded to BAE Systems and General Dynamics Land Systems (GDLS). In 2QFY22, the Source Selection Evaluation Board (SSEB) convened to down-select to a single vendor for Low Rate Initial Production (LRIP). MPF received Milestone C approval from the Army Acquisition Executive (AAE) on 24 June, 2022. GDLS was awarded the LRIP contract.

Based on actual execution of the program FY 2022 quantities are now 22 and will be updated prior to the submission of the FY 2025 budget submission.

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Exhibit P-21, Production Schedule: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10	P-1 Line Item Number / Title: 7181G80820 / Mobile Protected Firepower	Item Number / Title [DODIC]: G80820 / Mobile Protected Firepower
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024													Fiscal Year 2025													B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 3	BAL D U E A S O F 1 O C T	Calendar Year 2024													Calendar Year 2025													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Production - Contractor Furnished End Item																																	
1		2022	ARMY	23	0	23	-	2	2	3	3	2	2	2	2	2	2	1												0			
1		2023	ARMY	29	0	29	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	3	3	3	4			
1		2024	ARMY	33	0	33						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10	P-1 Line Item Number / Title: 7181G80820 / Mobile Protected Firepower	Item Number / Title [DODIC]: G80820 / Mobile Protected Firepower
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2026												Fiscal Year 2027												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2025	BAL DUE AS OF 1 OCT	Calendar Year 2026												Calendar Year 2027												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Production - Contractor Furnished End Item																															
	1	2022	ARMY	23	23	0																							0		
	1	2023	ARMY	29	25	4		4																					0		
	1	2024	ARMY	33	0	33	-	3	3	3	3	3	3	3	4	4	4												0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2024 Army	Date: March 2023
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Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 10	P-1 Line Item Number / Title: 7181G80820 / Mobile Protected Firepower	Item Number / Title [DODIC]: G80820 / Mobile Protected Firepower
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	General Dynamics Land Systems - Various	4	4	6	0	1	17	18	0	12	17	29

Remarks:
 In FY 2022, three additional Low Rate Initial Production (LRIP) Lot 1 vehicles were procured with Research, Development, Test and Evaluation (RDT&E) funding to support Mobile Protected Firepower (MPF) Full Up System Level (FUSL) Live Fire Testing. These systems will be delivered in September 2024 through October 2024.

The FY 2024 Mobile Protected Firepower (MPF) Low Rate Initial Production (LRIP) buy includes 33 vehicles, all procured with funding within Weapons and Tracked Combat Vehicles (WTCV) Line Item 7181G80820/Mobile Protected Firepower. While the contractual manufacturing lead time is 17 months, in an effort to reduce program schedule risk while MPF manufacturing processes continue to mature, the Army intends to award the FY 2024 Production Option in April 2024, 19 months from first vehicle delivery (November 2025).

Based on actual execution of the program FY 2022 quantities are now 22 and will be updated prior to the submission of the FY 2025 budget submission.

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

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

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:** 0363G85200 / Stryker Upgrade

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203735A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	919	228	180	85	-	85	110	189	187	182	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3,404.464	1,082.828	891.171	614.282	-	614.282	654.326	865.441	816.703	860.055	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	3,404.464	1,082.828	891.171	614.282	-	614.282	654.326	865.441	816.703	860.055	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3,404.464	1,082.828	891.171	614.282	-	614.282	654.326	865.441	816.703	860.055	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	3,704.531	4,749.246	4,950.950	7,226.847	-	7,226.847	5,948.418	4,579.053	4,367.396	4,725.577	Continuing	Continuing

Description:

A dynamic, asymmetric threat and operational environment demands full spectrum, strategically responsive, agile, and dominant land forces. Immediate response by a lethal, versatile, tactically agile joint force capable of operational maneuver is essential to fulfilling the Army's Warfighting needs. The Stryker-equipped Brigade Combat Team (BCT) is this force. The use of a common platform/common chassis design reduces requirements for repair parts and logistics support in the area of operations. In response to operational needs identified in the Theater of Operations, the Stryker Double-V-Hull (DVH) survivability enhancement was approved for development and production by Acquisition Decision Memorandums (ADM) signed April 2010 and May 2011, respectively. The May 2011 ADM approved production of two Brigades, a 3rd DVH Brigade was approved in September 2011 with a 4th approved in September 2014. A DVH brigade is constructed through an exchange effort by which components and mission equipment packages are removed from flat bottom hull Strykers to be reassembled in the DVH structure along with the associated DVH unique components. In May 2012, Phase 1 (Technology Development), Stryker DVH A1 Engineering Change Proposal (DVHA1 ECP), formerly ECP1, development effort was approved to provide power generation, suspension, and network upgrades to restore Stryker DVH Space, Weight, and Power-Cooling (SWaP-C) lost as a result of incorporating vehicle changes to counter threats encountered during deployment operations. In May 2013, Phase II for the DVH A1 ECP development effort was approved. The DVH A1 ECP was approved for production in August 2016, with the DVH A1 ECP vehicles being produced using the exchange production process. Stryker Brigade Combat Teams (SBCTs), equipped with DVH A1 ECP vehicles, can be used across the full spectrum of military operations. Stryker Brigade Combat Teams (SBCTs) are required to deploy rapidly and conduct effective combat operations immediately on arrival to prevent, contain, stabilize, or resolve a conflict through shaping and decisive operations. On 23 March 2018, the Army Requirements Oversight Council (AROC) approved the exchange of all remaining flat bottom hull Stryker Brigades from flat bottom hull to DVH A1 ECP. Program Office awarded on 30 June 2020 a follow-on DVH A1 ECP requirements contract for FY20-25, with an additional one year option. Production of Stryker DVH A1 ECP vehicles for this contract will be produced through a blend of new vehicle production and the current exchange process due to the limited available inventory of flat bottom hull Strykers required to feed the exchange production process. Configurations of Stryker DVHA1 ECP vehicles are:

Double-V-Hull A1 ECP Infantry Carrier: The DVH A1 ECP Infantry Carrier Vehicle (ICVVA1) carries an infantry squad with individual equipment. The Infantry Carrier Vehicle also provides protected transport and supporting fires for the infantry squad during dismounted assault. DVH A1 ECP Infantry Carrier Vehicles with a Scout Dismount Kit provide for dismounted force situational awareness, gathering, and transmitting real time intelligence while moving throughout the battlefield in close, complex, and urban terrain.

Double-V-Hull A1 ECP Mortar Carrier: The DVH A1 ECP Mortar Carrier (MCVVA1) supports infantry units with screening obscurants, suppressive forces and on-call supporting fires. 120mm, 81mm, and 60mm mortars provide complementary capabilities with responsive, accurate and lethal indirect fire support to the dismounted infantry assault.

Double-V-Hull A1 ECP Commander's Vehicle: The DVH A1 ECP Commander's Vehicle (CVVA1) provides the brigade commanders and infantry battalion commanders with the means to receive information and data, analyze, prepare, and transmit data, and control the forces/functions carrying out combat missions.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles		P-1 Line Item Number / Title: 0363G85200 / Stryker Upgrade
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0203735A
Line Item MDAP/MAIS Code: N/A		

Double-V-Hull A1 ECP Fire Support Vehicle: The DVH A1 ECP Fire Support Vehicle (FSVVA1) provides automated enhanced surveillance, target acquisition, target identification, target tracking, target designation, position location, and communications functionality. Targets will be transmitted instantly to the fire support system and shooter.

Double-V-Hull A1 ECP Engineer Squad Vehicle: The DVH A1 ECP Engineer Squad Vehicle (ESVVA1) provides maneuver/mobility support capabilities which include obstacle clearing, in-stride breaching of surface mines, proofing of subsurface mines, and smoke generation for local protection.

Double-V-Hull A1 ECP Medical Evacuation Vehicle: The DVH A1 ECP Medical Evacuation Vehicle (MEVVA1) is the Battalion Aid Station for brigade units, providing treatment for serious injury and advanced trauma cases.

Double-V-Hull A1 ECP Antitank Guided Missile Vehicle: The DVH A1 ECP Antitank Guided Missile Vehicle (ATVVA1) is the brigade's primary tank killing system. The Antitank Guided Missile Vehicle (ATW) reinforces the brigade's infantry battalion, reinforces the brigade reconnaissance squadron, and provides long-range direct fire.

Double V Hull A1 (DVHA1) ICVVA1-30mm (formerly Medium Caliber Weapon System (MCWS)): The Stryker ICVVA1-30mm integrates a 30mm cannon onto the DVHA1 platform to provide increased lethality, capable of firing a variety of munitions designed to support mounted and dismounted elements when executing combined arms maneuver and wide area security operations. The ICVVA1-30mm provides protected transport for an infantry or cavalry squad with individual equipment.

Procuring Double-V-Hull A1 ECP Medical Evacuation Vehicles to support Terrestrial Layered System (TLS) Program for Project Manager (PM) Electronic Warfare and Cyber.

Modifications to the Stryker Family of Vehicles (FoV) are to resolve reliability, lethality, safety, operational, performance degradation, chemical detection and Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) obsolescence issues. Primary efforts involve the incorporation of fleet modifications, to include, C4ISR updates, DVH Safety and Survivability updates, and training device procurement and the retrofit of Lethality Engineering Change Proposals (ECPs) (formerly ECP 2) upgrades to enhance the suppressive fire and armored vehicle engagement capabilities of the Army's Stryker Brigade Combat Teams (SBCTs).

Training Aids, Devices, Simulators, and Simulations (TADSS): Funding provides for the integration of the Vehicle Tactical Engagement Simulation System (V-TESS) and supports the United States Army Combined Arms Support Command (CASCOM) and the requirement for the Stryker Vehicle Maintainer Training Course to support establishment of the Stryker-unique 91S Military Occupational Series (MOS). The 91S training course requires purchase of the following training devices: Diagnostic Troubleshooting Trainers (DTTs), Anti-Tank Guided Missile Vehicle Hands-On Trainers (HOTs), Full-Up Power Pack Part Task Trainers (FUPP PTTs), Mortar Carrier Hands-On Trainers (MC HOTs).

Retrofit Planning and Site Management: Funding supports kit material handling and fleet-wide retrofits for the Stryker Family of Vehicles (FoV).

Test Fleet Maintenance funding maintains the Stryker test fleet, to include contractor repair labor and operations of Stryker repair parts warehouses located at the Army's test centers.

Program management, engineering, and logistics support necessary to execute Stryker modifications to include DVH A1 ECPs, Fleet Modifications, C4I Obsolescence and Next Generation items, and Lethality ECPs.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	228	180	85	-	85	110	189	187	182
	Total Obligation Authority	1,082.828	891.171	614.282	-	614.282	654.326	865.441	816.703	860.055
Total:	Quantity	228	180	85	-	85	110	189	187	182

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles	P-1 Line Item Number / Title: 0363G85200 / Stryker Upgrade
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0203735A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Secondary Distribution	Total Obligation Authority	1,082.828	891.171	614.282	-	614.282	654.326	865.441	816.703	860.055

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:**
 0363G85200 / Stryker Upgrade

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203735A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	G85200 / Stryker Upgrade	P-5a, P-21	A		919 / 3,404.464	228 / 1,082.828	180 / 891.171	85 / 614.282	- / -	85 / 614.282
P-40	Total Gross/Weapon System Cost				919 / 3,404.464	228 / 1,082.828	180 / 891.171	85 / 614.282	- / -	85 / 614.282

*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:
 Note: Stryker Modification efforts and funding in Budget Line 4, 0230GM0100 / Stryker (Mod) were realigned to Budget Line 5, 0363G85200 / Stryker Upgrade starting in FY 2021.

FY 2024 Base procurement dollars in the amount of \$614.282 million supports the following:

The production of Double V Hull A1 (DVH A1) Engineering Change Proposal (ECP) vehicles, produced using flat bottom Stryker exchange and new production build processes, providing increased electrical power, mechanical power, weight margin, and cooling. Combined with a digital backbone, the enhanced DVH A1 ECP fleet will be able to host the future network while maintaining protection and mobility characteristics.

Lethality ECPs include efforts to replace the current Remote Weapon Station with the Common Remotely Operated Weapon Station (CROWS) with under armor Javelin fire capability, integrate improved optics and targeting systems onto the Anti-Tank Guided Missile (ATGM) vehicle, incorporate the 30mm Lethality Mission Equipment Package (MEP) onto a DVH A1 platform, and integrate other capabilities into the Stryker fleet. These improvements will provide for increased under armor fire capability, target identification range, provide overmatch against peer threats and supporting infantry assault, and address obsolescence within the targeting and reconnaissance systems utilized on the Stryker Family of Vehicles (FoV).

Stryker Family of Vehicles (FoV) fleet modifications address changes to the vehicle configurations resulting from identified safety issues, performance degradation issues, obsolescence issues, Modified Table of Organization & Equipment (MTO&E) changes, or Operational Need Statements (ONS). Scheduled modifications include: Joint Chemical Agent Detector (JCAD), Vehicle Intercom, In-Vehicle Network 2 (IVN2), Energy Attenuating seats for Flat Bottom Hull (FBH) vehicles, Mortar Carrier Fire Control Computer, RMS6-L N2 Recuperator gauge, Improved Battery Box, troop heater improvements, DVH survivability and safety modifications, refresh of the Fire Support Vehicle (FSV) Mission Equipment Package (MEP) and integration of emerging technologies such as Integrated Visual Augmentation System (IVAS) and improved power solution efforts. Modifications will be conducted by field modification teams, subject to vehicle/hardware availability.

Retrofit planning and site management funding provides for kit material handling and retrofit site management to support fleet-wide retrofits of the Stryker FoV.

Training Aids, Devices, Simulators, and Simulations (TADSS) funding provides for the integration of the Vehicle Tactical Engagement Simulation System (V-TESS) and supports the United States Army Combined Arms Support Command (CASCOM) and the requirement for the Stryker Vehicle Maintainer Training Course to support establishment of the Stryker-unique 91S Military Occupational Series (MOS). The 91S training course requires purchase of the Diagnostic Troubleshooting Trainers (DTTs).

Test Fleet Maintenance maintains the Stryker test fleet, to include contractor repair labor and operation of Stryker repair parts warehouses located at the Army's test centers (Aberdeen Proving Grounds, Yuma Proving Grounds, and Electronic Proving Grounds). Maintenance is required to ensure the test fleet is positioned to support testing needs and is in the appropriate condition to ensure accurate and verifiable test results.

Development Test on Stryker In-Vehicle Network 2 modification and 30mm Lethality vehicle production testing which includes safety, performance, durability, and environmental tests.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles		P-1 Line Item Number / Title: 0363G85200 / Stryker Upgrade
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0203735A
Line Item MDAP/MAIS Code: N/A		
<p>Program management, engineering, and logistics support necessary to execute Stryker modifications to include Double V Hull (DVH) A1 Engineering Change Proposals (ECPs), Fleet Modifications, Command, Control, Communications, Computers, and Intelligence (C4I) Obsolescence and Next Generation items, and Lethality ECPs.</p> <p>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.</p> <p>Army Acquisition Objective: 4,459</p> <p>The Army Acquisition Objective includes quantity requirements for Stryker Brigade Combat Teams and other Army programs of record which utilize the Stryker vehicle as their base platform.</p>		

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Exhibit P-5, Cost Analysis: PB 2024 Army											Date: March 2023						
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20						P-1 Line Item Number / Title: 0363G85200 / Stryker Upgrade					Item Number / Title [DODIC]: G85200 / Stryker Upgrade						
ID Code (A=Service Ready, B=Not Service Ready) : A											MDAP/MAIS Code:						
Resource Summary				Prior Years		FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Procurement Quantity (Units in Each)				919		228		180		85		-		85			
Gross/Weapon System Cost (\$ in Millions)				3,404.464		1,082.828		891.171		614.282		-		614.282			
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-			
Net Procurement (P-1) (\$ in Millions)				3,404.464		1,082.828		891.171		614.282		-		614.282			
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-			
Total Obligation Authority (\$ in Millions)				3,404.464		1,082.828		891.171		614.282		-		614.282			
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																	
Initial Spares (\$ in Millions)				-		-		-		-		-		-		-	
Gross/Weapon System Unit Cost (\$ in Thousands)				3,704.531		4,749.246		4,950.950		7,226.847		-		7,226.847			

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Recurring Cost																		
DVH A1 ECP Infantry Carrier Vehicle ^(†)	2,571.503	465	1,195.749	1,203.268	56	67.383	2,763.917	121	334.434	3,249.566	53	172.227	-	-	-	3,249.566	53	172.227
DVH A1 ECP Anti-Tank Guided Missile Veh ^(†)	2,900.696	23	66.716	2,756.750	8	22.054	-	-	-	3,818.600	5	19.093	-	-	-	3,818.600	5	19.093
DVH A1 ECP Mortar Carrier Vehicle ^(†)	2,913.427	96	279.689	2,807.174	23	64.565	3,207.350	20	64.147	3,668.500	6	22.011	-	-	-	3,668.500	6	22.011
DVH A1 ECP Fire Support Vehicle ^(†)	2,874.919	37	106.372	2,797.571	7	19.583	2,942.500	10	29.425	3,467.000	5	17.335	-	-	-	3,467.000	5	17.335
DVH A1 ECP Engineer Squad Vehicle ^(†)	2,851.875	32	91.260	2,780.625	8	22.245	3,325.600	5	16.628	3,545.400	5	17.727	-	-	-	3,545.400	5	17.727
DVH A1 ECP Commander's Vehicle ^(†)	2,730.011	87	237.511	2,724.762	21	57.220	3,153.571	14	44.150	3,549.500	6	21.297	-	-	-	3,549.500	6	21.297
DVH A1 ECP Medical Evacuation Vehicle ^(†)	2,810.792	101	283.890	2,992.900	30	89.787	3,509.700	10	35.097	3,527.200	5	17.636	-	-	-	3,527.200	5	17.636
DVH A1 30mm MCWS ^(†)	4,257.892	83	353.405	5,617.568	95	533.669	-	-	22.596	-	-	10.693	-	-	-	-	-	10.693
Program Management Support (Govt)	-	-	146.608	-	-	41.949	-	-	43.265	-	-	44.168	-	-	-	-	-	44.168

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Exhibit P-5, Cost Analysis: PB 2024 Army												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20						P-1 Line Item Number / Title: 0363G85200 / Stryker Upgrade						Item Number / Title [DODIC]: G85200 / Stryker Upgrade					
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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 Furnished Equipment (GFE)	-	-	28.309	-	-	0.017	-	-	0.112	-	-	1.032	-	-	-	-	-	1.032
<i>Subtotal: Recurring Cost</i>	-	-	2,789.509	-	-	918.472	-	-	589.854	-	-	343.219	-	-	-	-	-	343.219
<i>Subtotal: Flyaway Cost</i>	-	-	2,789.509	-	-	918.472	-	-	589.854	-	-	343.219	-	-	-	-	-	343.219
Hardware Cost																		
Recurring Cost																		
Fleet Modifications	-	-	44.610	-	-	0.269	-	-	4.864	-	-	8.468	-	-	-	-	-	8.468
CROWS-J ECP	-	-	-	-	-	50.567	-	-	71.707	-	-	63.877	-	-	-	-	-	63.877
ATGM ECP	-	-	21.322	-	-	20.415	-	-	5.598	-	-	4.715	-	-	-	-	-	4.715
<i>Subtotal: Recurring Cost</i>	-	-	65.932	-	-	71.251	-	-	82.169	-	-	77.060	-	-	-	-	-	77.060
<i>Subtotal: Hardware Cost</i>	-	-	65.932	-	-	71.251	-	-	82.169	-	-	77.060	-	-	-	-	-	77.060
Package Fielding Cost																		
Recurring Cost																		
System Fielding Support - DVH A1	-	-	226.726	-	-	26.391	-	-	49.222	-	-	57.987	-	-	-	-	-	57.987
<i>Subtotal: Recurring Cost</i>	-	-	226.726	-	-	26.391	-	-	49.222	-	-	57.987	-	-	-	-	-	57.987
Non Recurring Cost																		
Authorized Stockage List - DVH A1	-	-	130.104	-	-	3.565	-	-	28.572	-	-	29.173	-	-	-	-	-	29.173
<i>Subtotal: Non Recurring Cost</i>	-	-	130.104	-	-	3.565	-	-	28.572	-	-	29.173	-	-	-	-	-	29.173
<i>Subtotal: Package Fielding Cost</i>	-	-	356.830	-	-	29.956	-	-	77.794	-	-	87.160	-	-	-	-	-	87.160
Logistics Cost																		
Recurring Cost																		
Retrofit Planning and Site Management	-	-	7.053	-	-	7.353	-	-	7.912	-	-	8.390	-	-	-	-	-	8.390
<i>Subtotal: Recurring Cost</i>	-	-	7.053	-	-	7.353	-	-	7.912	-	-	8.390	-	-	-	-	-	8.390
<i>Subtotal: Logistics Cost</i>	-	-	7.053	-	-	7.353	-	-	7.912	-	-	8.390	-	-	-	-	-	8.390
Support - Support Equipment Cost																		
Maintenance Equipment	-	-	7.806	-	-	0.278	-	-	5.073	-	-	4.351	-	-	-	-	-	4.351
<i>Subtotal: Support - Support Equipment Cost</i>	-	-	7.806	-	-	0.278	-	-	5.073	-	-	4.351	-	-	-	-	-	4.351
Support - System Engineering Cost																		
System Engineering	-	-	118.734	-	-	31.706	-	-	59.013	-	-	37.638	-	-	-	-	-	37.638
<i>Subtotal: Support - System Engineering Cost</i>	-	-	118.734	-	-	31.706	-	-	59.013	-	-	37.638	-	-	-	-	-	37.638

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Exhibit P-5, Cost Analysis: PB 2024 Army												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20						P-1 Line Item Number / Title: 0363G85200 / Stryker Upgrade						Item Number / Title [DODIC]: G85200 / Stryker Upgrade					
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Support - System Test and Evaluation Cost																		
Development Test and Evaluation	-	-	25.429	-	-	-	-	-	28.312	-	-	17.676	-	-	-	-	-	17.676
Test and Evaluation Support	-	-	6.295	-	-	5.835	-	-	7.678	-	-	7.586	-	-	-	-	-	7.586
<i>Subtotal: Support - System Test and Evaluation Cost</i>	-	-	31.724	-	-	5.835	-	-	35.990	-	-	25.262	-	-	-	-	-	25.262
Support - Training Cost																		
Equipment	-	-	26.876	-	-	17.977	-	-	33.366	-	-	31.202	-	-	-	-	-	31.202
<i>Subtotal: Support - Training Cost</i>	-	-	26.876	-	-	17.977	-	-	33.366	-	-	31.202	-	-	-	-	-	31.202
Gross/Weapon System Cost	3,704.531	919	3,404.464	4,749.246	228	1,082.828	4,950.950	180	891.171	7,226.847	85	614.282	-	-	-	7,226.847	85	614.282

Remarks:

Stryker DVHA1 variant unit costs fluctuate annually based on the total number of DVHA1 vehicles procured and the quantities of individual variants procured as established in the DVHA1 contract range pricing.

Based on actual execution of the program FY 2022 quantities are now 248 and will be updated prior to the FY 2025 budget submission.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	228	180	85	-	85
	Total Obligation Authority	1,082.828	891.171	614.282	-	614.282
Total:	Quantity	228	180	85	-	85
Secondary Distribution	Total Obligation Authority	1,082.828	891.171	614.282	-	614.282

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

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army								Date: March 2023				
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 0363G85200 / Stryker Upgrade					Item Number / Title [DODIC]: G85200 / Stryker Upgrade				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
DVH A1 ECP Infantry Carrier Vehicle ^(†)		2022	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2022	Sep 2023	56	1,203.268	Y		
DVH A1 ECP Infantry Carrier Vehicle ^(†)		2023	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2023	Sep 2024	121	2,763.917	Y		
DVH A1 ECP Infantry Carrier Vehicle ^(†)		2024	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2024	Sep 2025	53	3,249.566	Y		
DVH A1 ECP Anti-Tank Guided Missile Veh ^(†)		2022	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2022	Jan 2024	8	2,756.750	Y		
DVH A1 ECP Anti-Tank Guided Missile Veh ^(†)		2024	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2024	Dec 2025	5	3,818.600	Y		
DVH A1 ECP Mortar Carrier Vehicle ^(†)		2022	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2022	Feb 2024	23	2,807.174	Y		
DVH A1 ECP Mortar Carrier Vehicle ^(†)		2023	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2023	Dec 2024	20	3,207.350	Y		
DVH A1 ECP Mortar Carrier Vehicle ^(†)		2024	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2024	Jan 2026	6	3,668.500	Y		
DVH A1 ECP Fire Support Vehicle ^(†)		2022	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2022	Sep 2023	7	2,797.571	Y		
DVH A1 ECP Fire Support Vehicle ^(†)		2023	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2023	Sep 2024	10	2,942.500	N		
DVH A1 ECP Fire Support Vehicle ^(†)		2024	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2024	Jan 2026	5	3,467.000	Y		
DVH A1 ECP Engineer Squad Vehicle ^(†)		2022	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2022	May 2024	8	2,780.625	Y		
DVH A1 ECP Engineer Squad Vehicle ^(†)		2023	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2023	Sep 2024	5	3,325.600	N		
DVH A1 ECP Engineer Squad Vehicle ^(†)		2024	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2024	Oct 2025	5	3,545.400	Y		
DVH A1 ECP Commander's Vehicle ^(†)		2022	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2022	Sep 2023	21	2,724.762	Y		
DVH A1 ECP Commander's Vehicle ^(†)		2023	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2023	Dec 2024	14	3,153.571	Y		
DVH A1 ECP Commander's Vehicle ^(†)		2024	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2024	Sep 2025	6	3,549.500	Y		

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 0363G85200 / Stryker Upgrade	Item Number / Title [DODIC]: G85200 / Stryker Upgrade
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
DVH A1 ECP Medical Evacuation Vehicle ^(†)		2022	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2022	Sep 2023	30	2,992.900	Y		
DVH A1 ECP Medical Evacuation Vehicle ^(†)		2023	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2023	Jan 2025	10	3,509.700	Y		
DVH A1 ECP Medical Evacuation Vehicle ^(†)		2024	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2024	Feb 2026	5	3,527.200	Y		
DVH A1 30mm MCWS ^(†)		2022	OshKosh Defense, LLC / Oshkosh, Wisconsin	SS / Various	TACOM	Mar 2022	Sep 2023	95	5,617.568	N		

^(†) indicates the presence of a P-21

Remarks:
Based on actual execution of the program FY 2022 quantities are now 248 and will be updated prior to the FY 2025 budget submission.

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Exhibit P-21, Production Schedule: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20 **P-1 Line Item Number / Title:** 0363G85200 / Stryker Upgrade **Item Number / Title [DODIC]:** G85200 / Stryker Upgrade

Cost Elements <i>(Units in Each)</i>				Fiscal Year 2022														Fiscal Year 2023														BALANCE			
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022														Calendar Year 2023														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
DVH A1 ECP Infantry Carrier Vehicle																																			
Prior Years Deliveries: 465																																			
	1	2022	ARMY	56	0	56																						6	50						
	2	2023	ARMY	121	0	121																							121						
	2	2024	ARMY	53	0	53																							53						
DVH A1 ECP Anti-Tank Guided Missile Veh																																			
Prior Years Deliveries: 23																																			
	3	2022	ARMY	8	0	8																							8						
	4	2024	ARMY	5	0	5																							5						
DVH A1 ECP Mortar Carrier Vehicle																																			
Prior Years Deliveries: 96																																			
	5	2022	ARMY	23	0	23																							23						
	6	2023	ARMY	20	0	20																							20						
	5	2024	ARMY	6	0	6																							6						
DVH A1 ECP Fire Support Vehicle																																			
Prior Years Deliveries: 37																																			
	7	2022	ARMY	7	0	7																						3	4						
	7	2023	ARMY	10	0	10																							10						
	7	2024	ARMY	5	0	5																							5						
DVH A1 ECP Engineer Squad Vehicle																																			
Prior Years Deliveries: 32																																			
	8	2022	ARMY	8	0	8																							8						
	9	2023	ARMY	5	0	5																							5						
	9	2024	ARMY	5	0	5																							5						
DVH A1 ECP Commander's Vehicle																																			
Prior Years Deliveries: 87																																			
	10	2022	ARMY	21	0	21																						3	18						
	11	2023	ARMY	14	0	14																							14						
	11	2024	ARMY	6	0	6																							6						
DVH A1 ECP Medical Evacuation Vehicle																																			
Prior Years Deliveries: 101																																			
	12	2022	ARMY	30	0	30																						2	28						
	13	2023	ARMY	10	0	10																							10						
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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Exhibit P-21, Production Schedule: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 0363G85200 / Stryker Upgrade	Item Number / Title [DODIC]: G85200 / Stryker Upgrade
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Cost Elements (Units in Each)					Fiscal Year 2024													Fiscal Year 2025													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 3	BAL D U E A S O F 1 O C T	Calendar Year 2024													Calendar Year 2025													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
DVH A1 ECP Infantry Carrier Vehicle																																	
Prior Years Deliveries: 465																																	
	1	2022	ARMY	56	6	50	6	8	9	6	5	4	5	3	1	1	2													0			
	2	2023	ARMY	121	0	121	-	-	-	-	-	-	-	-	-	-	-	10	10	11	10	8	7	8	8	10	10	15	14	0			
	2	2024	ARMY	53	0	53							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	44			
DVH A1 ECP Anti-Tank Guided Missile Veh																																	
Prior Years Deliveries: 23																																	
	3	2022	ARMY	8	0	8	-	-	-	2	2	3	1																0				
	4	2024	ARMY	5	0	5							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5				
DVH A1 ECP Mortar Carrier Vehicle																																	
Prior Years Deliveries: 96																																	
	5	2022	ARMY	23	0	23	-	-	-	-	2	2	4	4	4	4	3												0				
	6	2023	ARMY	20	0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	2	3	3		0				
	5	2024	ARMY	6	0	6							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6				
DVH A1 ECP Fire Support Vehicle																																	
Prior Years Deliveries: 37																																	
	7	2022	ARMY	7	3	4	3	1																					0				
	7	2023	ARMY	10	0	10	-	-	-	-	-	-	-	-	-	-	-	3	-	3	3	1							0				
	7	2024	ARMY	5	0	5							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5				
DVH A1 ECP Engineer Squad Vehicle																																	
Prior Years Deliveries: 32																																	
	8	2022	ARMY	8	0	8	-	-	-	-	-	-	-	2	3	3													0				
	9	2023	ARMY	5	0	5	-	-	-	-	-	-	-	-	-	-	-	2	2	1									0				
	9	2024	ARMY	5	0	5							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5				
DVH A1 ECP Commander's Vehicle																																	
Prior Years Deliveries: 87																																	
	10	2022	ARMY	21	3	18	4	4	4	3	2	1																	0				
	11	2023	ARMY	14	0	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	3	3	3		0				
	11	2024	ARMY	6	0	6							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4				
DVH A1 ECP Medical Evacuation Vehicle																																	
Prior Years Deliveries: 101																																	
	12	2022	ARMY	30	2	28	1	1	1	3	2	3	2	3	4	4	4												0				
	13	2023	ARMY	10	0	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	2	2	2	0				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20 **P-1 Line Item Number / Title:** 0363G85200 / Stryker Upgrade **Item Number / Title [DODIC]:** G85200 / Stryker Upgrade

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2026													Fiscal Year 2027													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 5	BAL D U E A S O F 1 O C T	Calendar Year 2026													Calendar Year 2027													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
DVH A1 ECP Infantry Carrier Vehicle																																	
Prior Years Deliveries: 465																																	
	1	2022	ARMY	56	56	0																							0				
	2	2023	ARMY	121	121	0																							0				
	2	2024	ARMY	53	9	44	7	7	9	5	2	6	8																0				
DVH A1 ECP Anti-Tank Guided Missile Veh																																	
Prior Years Deliveries: 23																																	
	3	2022	ARMY	8	8	0																							0				
	4	2024	ARMY	5	0	5	-	-	1	2	2																		0				
DVH A1 ECP Mortar Carrier Vehicle																																	
Prior Years Deliveries: 96																																	
	5	2022	ARMY	23	23	0																							0				
	6	2023	ARMY	20	20	0																							0				
	5	2024	ARMY	6	0	6	-	-	-	3	3																		0				
DVH A1 ECP Fire Support Vehicle																																	
Prior Years Deliveries: 37																																	
	7	2022	ARMY	7	7	0																							0				
	7	2023	ARMY	10	10	0																							0				
	7	2024	ARMY	5	0	5	-	-	-	1	2	2																	0				
DVH A1 ECP Engineer Squad Vehicle																																	
Prior Years Deliveries: 32																																	
	8	2022	ARMY	8	8	0																							0				
	9	2023	ARMY	5	5	0																							0				
	9	2024	ARMY	5	0	5	2	2	1																				0				
DVH A1 ECP Commander's Vehicle																																	
Prior Years Deliveries: 87																																	
	10	2022	ARMY	21	21	0																							0				
	11	2023	ARMY	14	14	0																							0				
	11	2024	ARMY	6	2	4	2	2																					0				
DVH A1 ECP Medical Evacuation Vehicle																																	
Prior Years Deliveries: 101																																	
	12	2022	ARMY	30	30	0																							0				
	13	2023	ARMY	10	10	0																							0				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20		P-1 Line Item Number / Title: 0363G85200 / Stryker Upgrade
		Item Number / Title [DODIC]: G85200 / Stryker Upgrade

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	11	23	6	2	11	13
2	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	13	25	6	2	11	13
3	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	11	23	6	2	11	13
4	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	13	25	6	2	11	13
5	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	11	23	6	2	11	13
6	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	13	25	6	2	11	13
7	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	11	23	6	2	11	13
8	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	11	23	6	2	11	13
9	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	13	25	6	2	11	13
10	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	11	23	6	2	11	13
11	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	13	25	6	2	11	13
12	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	11	23	6	2	11	13
13	GM GDLS Defense Group L.L.C. - Shelby Township	14	29	35	12	12	13	25	6	2	11	13
14	OshKosh Defense, LLC - Oshkosh, Wisconsin	14	29	35	12	5	20	25	6	2	15	17

Remarks:

Lead time for Stryker Double V Hull A1 variants is 11-13 months.

Lead time for FY 2022 Double V Hull A1 30mm Lethality is 20 months due to synchronization of the Double V Hull A1 platform and 30mm Mission Equipment Package integration.

Based on actual execution of the program FY 2022 quantities are now 248 and will be updated prior to the FY 2025 budget submission.

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

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

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:**
 1382GZ3300 / BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	128	-	128	-	-	-	-	-	128
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	5.232	-	5.232	-	-	-	-	-	5.232
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	-	5.232	-	5.232	-	-	-	-	-	5.232
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	5.232	-	5.232	-	-	-	-	-	5.232

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	40.875	-	40.875	-	-	-	-	-	40.875

Description:

GZ3300 / BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE is a New Start program in FY 2024.

GA3312 / M3A3 BFIST VEHICLE WITH FS3 is a new start within the BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE Budget Line in FY 2024

The Bradley Fire Support Team (BFIST) vehicle replaced the aging M981 Fire Support Vehicle used by the Fire Support Team (FIST) in the Armored Brigade Combat Teams (ABCT). The BFIST contributes to success on the battlefield by accurately locating and designating targets and then combining this information to develop and execute fire support plans. The BFIST allows fire support operations to be performed on the battlefield in vehicles with the same signature, survivability, and mobility as the other Bradley Fighting Vehicles (BFV) in the maneuver units it supports. There are 246 BFIST vehicles fielded with three variants: M7A4 BFIST, A3 BFIST with FS3 (Fire Support Sensor System), and M7 BFIST SA (Situation Awareness).

All three variants enable company Fire Support Teams (FIST) and company fire support officers to plan, coordinate and execute timely, accurate indirect artillery and mortar fires. The FS3 on all vehicles provides automated enhanced surveillance, target acquisition, target identification, target designation, target tracking, position location, and communications functionality under armor while mounted and target acquisition and designation while dismounted. All variants are being upgraded to include Fire Observer Software (FOS) on the Mounted Family of Computer System (MFCOS), TALIN 5000 Inertial Navigation Unit (INU); and Target Accuracy upgrades to meet Category I (CAT I) Target Location Error (TLE) specifications - the highest level TLE obtainable. After upgrades are completed, all BFIST vehicles will meet the Operational Requirements Document (ORD) objective requirements.

The M7 BFIST Situational Awareness (SA) is based on the Bradley M2 ODS SA (Operation Desert Storm Situational Awareness) vehicles and utilizes a Smart Display Unit (SDU) in the commander and turret stations; and has 500-amp power generation. The A3 BFIST w/FS3 is based on the Bradley M3A3 vehicle and utilizes Commanders Independent Viewer (CIV) in the commander and turret stations; and has 500-amp power generation. The M7A4 BFIST is based on the Bradley M2A4 vehicle utilizes both the Smart Display Unit (SDU) and Commanders Independent Viewer (CIV) in the commander and turret stations; an upgraded engine and 1000-amp power generation.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army									
Quantity	-	-	74	-	74	-	-	-	-
Total Obligation Authority	-	-	3.039	-	3.039	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:** 1382GZ3300 / BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE

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

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
ANG	Quantity	-	-	54	-	54	-	-	-	-
	Total Obligation Authority	-	-	2.193	-	2.193	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	128	-	128	-	-	-	-
	Total Obligation Authority	-	-	5.232	-	5.232	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:** 1382GZ3300 / BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	GZ3312 / M3A3 BFIST VEHICLE WITH FS3				- / -	- / -	- / -	128 / 5.232	- / -	128 / 5.232
P-40	Total Gross/Weapon System Cost				- / -	- / -	- / -	128 / 5.232	- / -	128 / 5.232

*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 2024 procurement dollars in the amount of \$5.200 million support improvements to the Bradley Fire Support (BFIST) vehicle, resolves issues identified in the field through Field Problem Reports (FPR), improves safety, addresses obsolete components, develops and installs modification kits, maintains software and cyber, and updates operator/technical manuals. Current projections indicate the BFIST will remain in the Armored Brigade Combat Team (ABCT) formation until the 2050s.

The primary effort will focus on the application of field modifications to mitigate obsolescence with Fire Observer Software (FOS) on the Mounted Family of Computer System (MFOCS) and to improve Target Accuracy. The Fire Support Station and Commanders Display utilize the common Color Flat Panel Display (CFPD) which is in the process of obsolescence redesign with integration in FY 2025 and supply availability in FY 2026. Funding also supports the integration of the modernized Bradley Common Display (BCD) for all Bradley Fire Support Team (BFIST) vehicles.

GZ3300 / BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE is a New Start program in FY 2024.
 GA3312 / M3A3 BFIST VEHICLE WITH FS3 is a new start within the BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE Budget Line in FY 2024

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.

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 1382GZ3300 / BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE	Item Number / Title [DODIC]: GZ3312 / M3A3 BFIST VEHICLE WITH FS3

ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:					
Resource Summary				Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)				-	-	-	128	-	128
Gross/Weapon System Cost (\$ in Millions)				-	-	-	5.232	-	5.232
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)				-	-	-	5.232	-	5.232
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)				-	-	-	5.232	-	5.232
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)				-	-	-	40.875	-	40.875

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Recurring Cost																		
Modification Work Order (MWO) Installation	-	-	-	-	-	-	-	-	-	-	-	1.200	-	-	-	-	-	1.200
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	1.200	-	-	-	-	-	1.200
Non Recurring Cost																		
Fire Support Station and Commander Display NRE	-	-	-	-	-	-	-	-	-	-	-	1.500	-	-	-	-	-	1.500
Obsolescence Mitigation	-	-	-	-	-	-	-	-	-	-	-	2.532	-	-	-	-	-	2.532
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	4.032	-	-	-	-	-	4.032
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	-	-	-	5.232	-	-	-	-	-	5.232
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	40.875	128	5.232	-	-	-	40.875	128	5.232

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	-	-	74	-	74
	Total Obligation Authority	-	-	3.039	-	3.039
ANG	Quantity	-	-	54	-	54

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 1382GZ3300 / BRADLEY FIRE SUPPORT TEAM (BFIST) VEHICLE	Item Number / Title [DODIC]: GZ3312 / M3A3 BFIST VEHICLE WITH FS3

ID Code (A=Service Ready, B=Not Service Ready) : _____ **MDAP/MAIS Code:** _____

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
	Total Obligation Authority	-	-	2.193	-	2.193
Total:	Quantity	-	-	128	-	128
Secondary Distribution	Total Obligation Authority	-	-	5.232	-	5.232

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:** 1678GZ2400 / Bradley Program (MOD)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203735A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6,738.018	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	6,738.018	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	6,738.018	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	91,054.297	6,576.929	9,644.370	-	-	-	-	-	-	-	Continuing	Continuing

Description:

The Bradley Fighting Vehicle (BFV) is a fighting vehicle platform designed to transport infantry or scouts with armor protection, while providing covering fire to suppress enemy troops and armored vehicles. The primary mission area for the Bradley Fighting Vehicle is to support the mission of the Armored Brigade Combat Team (ABCT) and the ABCT mission is to fight and win engagements and battles in support of operational and strategic national objectives. The Bradley Family of Vehicles Modification line supports 3,331 Bradley vehicles across all three variants (A4, A3, Operation Desert Storm Situational Awareness (ODS-SA)). The funding line provides for the procurement of the A4 Mobility Engineering Change Proposals (ECPs) (A4s), fleet modifications that address changes to the vehicle configurations resulting from identified safety issues, approved Engineering Change Proposals (ECPs), integration of emerging technologies, performance degradation issues, obsolescence issues, readiness, issues identified in the field and approved by the Materiel Developer and Combat Developer for fielded Bradley Family of Vehicles (FOV), and Operational Need Statements (ONS). Additionally, this line supports the personnel, engineering, design, testing, hardware procurement, fielding, and installation in support of the aforementioned items.

The Bradley Program (MOD) funding line procures upgrades to the Bradley Fighting Vehicle and procures Army Acquisition Executive (AAE) approved Engineering Change Proposals (ECPs). There are currently two Engineering Change Proposals (ECPs) in this program, Track and Suspension and the A4 Mobility. The Track and Suspension ECP improves the vehicle fleet's suspension increasing underbelly clearance and provides extended life track. The Bradley A4 Mobility ECP addresses space, weight, power, and cooling issues with an improved powertrain and electrical system enabling the Bradley to host inbound technologies from other Army Programs of Record, such as, but not limited to the Integrated Tactical Network (ITN).

Additionally, the Bradley Program (MOD) procures training systems, and other upgrades, including but not limited to high priority improvements, survivability enhancements, increased cyber requirements and required modifications to achieve A4 Full Materiel Release, and obsolescence mitigation such as the Improved Bradley Acquisition Subsystem (IBAS 2.8), Bradley Processing unit, and common displays. Additionally, this line provides modification kits for other Army programs such as the Integrated Tactical Network (ITN) and Bradley fleet obsolescence mitigation for other Army programs such as the Integrated Tactical Network (ITN).

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154
Total:	Quantity	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles
P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203735A

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Secondary Distribution	Total Obligation Authority	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:**
 1678GZ2400 / Bradley Program (MOD)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203735A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-3a	GZ2400 / Bradley Program (MOD) (Increase Performance)		A		- / 6,738.018	- / 460.385	- / 260.398	- / 158.274	- / -	- / 158.274
P-40	Total Gross/Weapon System Cost				- / 6,738.018	- / 460.385	- / 260.398	- / 158.274	- / -	- / 158.274

Exhibits Schedule					FY 2025	FY 2026	FY 2027	FY 2028	To Complete	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-3a	GZ2400 / Bradley Program (MOD) (Increase Performance)		A		- / 129.907	- / 102.738	- / 101.136	- / 104.154	Continuing	Continuing
P-40	Total Gross/Weapon System Cost				- / 129.907	- / 102.738	- / 101.136	- / 104.154	Continuing	Continuing

*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 2024 Base procurement dollars in the amount of \$158.274 million supports procurement of multiple modifications to the Bradley Family of Vehicles to include upgrades to the Bradley Fire Support Team vehicle, procurement of training devices, and procurement of safety and critical obsolescence upgrades as well as obsolescence management to identify diminishing manufacturing and material sources. Current projections indicate the Bradley Fighting Vehicle and the Bradley Fire Support Vehicle will remain in the Armored Brigade Combat Team (ABCT) formation until the 2050s.

The primary effort will focus around Mod 2 (BFVS High Priority Improvements) Improved Bradley Acquisition Subsystem (IBAS) 2.8 technology refresh hardware and spares procurement with system integration activities for the Bradley Processing Unit and Common Display and MOD 3 (Training Devices) with the procurement of A4 vehicles maintainer training devices that will be primarily fielded to Ft Benning GA.

Mod 2 (BFVS High Priority Improvements) maintains and provides improvements to the Bradley Family of Vehicles (FoV) to resolve problems identified in the field, improves safety, addresses obsolete components, develop and integrate modification kits, full material release efforts, and provides funding to maintain A3 and A4 facility vehicles, vehicle software and operators/technical manuals.

Mod 3 (Training Equipment Devices) funding supports for training device management for the Conduct of Fire Trainers (COFT), Hands on Turret Trainers (HOTT), Part Task Trainers (PTT) and Diagnostic Troubleshooting Trainers (DTT). These training devices are critical to maintaining gunnery proficiency and lowering maintenance cost.

Mod 5 (Program/Engineering Support) Program/Engineering Support includes both government & contractor program management support to oversee program planning & procurement of Engineering Change Proposals (ECPs), conversion of Bradley configurations and industrial base mitigation.

Mod 7 (BFVS Mobility Modification) funding supports continuation of Bradley A4 fielding and production testing.

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.

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Exhibit P-3a, Individual Modification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)	Modification Number / Title: GZ2400 / Bradley Program (MOD)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	6,738.018	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	6,738.018	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	6,738.018	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154	Continuing	Continuing

(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)	91,054.297	6,576.929	9,644.370	-	-	-	-	-	-	-	Continuing	Continuing

Description:

MOD 2 (BFVS High Priority Improvements) - Provides funding for the components, application, and engineering support of improvements designed to resolve problems identified in the field, engineering support related to production, improve safety, integrate new equipment, develop and integrate mod kits, address obsolescence issues, and bring the vehicles into compliance with transportability and recovery requirements. Provides cyclical updates to vehicle software to incorporate obsolescence redesign, maintain software versions, and update integrated logistics products.

MOD 3 (Training Equipment Devices) - Provides funding to support procurement and fielding of Bradley Fighting Vehicle Training Aids, Devices, Simulators and Simulations (TADSS). The Bradley training base requires a technical refresh of the following systems to address obsolescence issues: M2A3/M7A3 Part Task Trainers (PTT), Crew Module Unit Recorder (CMUR) and the Bradley Common Software Library (BCSL). Production funding will also provide new A4 Turret Hands on Trainers and A3/A4 Parts Task Trainers required by the US Army Training and Doctrine Command (TRADOC) System Training Plan.

MOD 5 (Program/Engineering Support) - Program/Engineering Support includes both government & contractor program management support to oversee program planning & procurement of Engineering Change Proposals (ECPs), conversion of Bradley configurations and industrial base mitigation.

MOD 6 (BFVS Track and Suspension Modification) - Provides funding to support procurement and fielding of the Track and Suspension Engineering Change Proposals (ECP) to the Bradley Vehicle fleet. The Track and Suspension field modifications include track and suspension system upgrades that help to alleviate mobility, force protection, and system survivability deficiencies. Costs associated with kit installations are included in the funding for the prime hardware contracts.

MOD 7 (BFVS Mobility Modifications) - Provides funding to support procurement and fielding of Bradley A4 variant vehicles. In addition to vehicles, funding supports the procurement of government furnished material and fielding. The M2A4/M7A4 Bradley regain lost capability due to added weight by upgrading the power pack and drivetrain systems. The A4 improves the electrical system to enable hosting of inbound technologies from other Army Programs of Record. Costs associated with kit installations are included in the funding for the prime hardware contracts. The Army Procurement Object (APO) is 731 A4s for four Armor Brigade Combat Teams, one Army Prepositioned Stock brigade to support European Deterrence Initiative requirements and TRADOC vehicles. A4 Vehicle planned fielding of a BCT in FY2024 and manufacturing through 1QFY2025. Prior to FY 2020, 175 vehicles received the Bradley Fighting Vehicle System Mobility Modification which was funded in the Bradley Program Line (G80718). Funding for the Bradley Program Line ended in FY 2019.

MOD 10 (Survivability Enhancements) - Provides funding to support procurement and fielding of Survivability Enhancements including, but not limited to, the Underbelly Interim Solution (UBIS). UBIS increases the system survivability of the Bradley Fighting Vehicle against various threats.

Modification Acronyms listed above: Bradley Fighting Vehicle System (BFVS); Chassis Modernization and Embedded Diagnostics (CMED) kits; Inertial Navigation Unit (INU)/ Tactical Advanced Land Inertial Navigator (TALIN); and Improved Bradley Acquisition Subsystem (IBAS).

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Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)	Modification Number / Title: GZ2400 / Bradley Program (MOD)
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154

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Exhibit P-3a, Individual Modification: PB 2024 Army											Date: March 2023		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20				P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)							Modification Number / Title: GZ2400 / Bradley Program (MOD)		
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: M2 & M3 Bradley Vehicle Variants				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
Modification Item 1 of 10: Bradley Reactive Armor													
A Kits													
Recurring													
Kit Quantity	2,676 / 765.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,676 / 765.100	
Subtotal: Recurring	2,676 / 765.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,676 / 765.100	
Subtotal: Bradley Reactive Armor	2,676 / 765.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,676 / 765.100	
Modification Item 2 of 10: BFVS High Priority Improvements													
A Kits													
Recurring													
CMED Driver Vision Upgrade	617 / 85.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	617 / 85.500	
Reset Mods	756 / 10.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	756 / 10.500	
INU/Talon	271 / 5.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	271 / 5.000	
Heat Abatement/Cargo Hatch	2,764 / 2.870	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,764 / 2.870	
High Priority Mods	- / 232.741	- / 35.969	- / 53.381	- / 39.100	- / -	- / 39.100	- / 60.346	- / 34.896	- / 33.851	- / 35.663	Continuing	Continuing	
Urban Survivability Mods	5,276 / 2,098.985	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5,276 / 2,098.985	
IBAS 2.8	- / -	143 / 51.801	- / 10.269	179 / 41.109	- / -	179 / 41.109	140 / 41.931	140 / 42.770	140 / 47.000	140 / 47.000	Continuing	Continuing	
Subtotal: Recurring	9,684 / 2,435.596	143 / 87.770	- / 63.650	179 / 80.209	- / -	179 / 80.209	140 / 102.277	140 / 77.666	140 / 80.851	140 / 82.663	Continuing	Continuing	
Subtotal: BFVS High Priority Improvements	9,684 / 2,435.596	143 / 87.770	- / 63.650	179 / 80.209	- / -	179 / 80.209	140 / 102.277	140 / 77.666	140 / 80.851	140 / 82.663	Continuing	Continuing	
Modification Item 3 of 10: Training Equipment Devices													
A Kits													
Recurring													
Training Equipment	- / 68.310	- / 3.287	- / 14.799	- / 2.450	- / -	- / 2.450	- / -	- / -	- / 2.100	- / -	- / -	- / 90.946	
Subtotal: Recurring	- / 68.310	- / 3.287	- / 14.799	- / 2.450	- / -	- / 2.450	- / -	- / -	- / 2.100	- / -	- / -	- / 90.946	
Non-Recurring													
Hardware - Parts Task Trainer	- / 88.634	- / -	- / -	8 / 24.308	- / -	8 / 24.308	- / -	- / -	- / -	- / -	- / -	8 / 112.942	
Subtotal: Non-Recurring	- / 88.634	- / -	- / -	8 / 24.308	- / -	8 / 24.308	- / -	- / -	- / -	- / -	- / -	8 / 112.942	
Subtotal: Training Equipment Devices	- / 156.944	- / 3.287	- / 14.799	8 / 26.758	- / -	8 / 26.758	- / -	- / -	- / 2.100	- / -	- / -	8 / 203.888	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army										Date: March 2023				
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20					P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)					Modification Number / Title: GZ2400 / Bradley Program (MOD)				
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:							
Models of Systems Affected: M2 & M3 Bradley Vehicle Variants				Modification Type: Increase Performance				Related RDT&E PEs:						
Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total		
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)		
Modification Item 4 of 10: ODS Situational Awareness														
A Kits														
Recurring														
ODS Situational Awareness	770 / 1,199.553	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	770 / 1,199.553		
IBAS Refresh	- / 8.850	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.850		
ODS-SA VEHICLE VERSION IDENTIFICATION	- / 12.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.500		
Subtotal: Recurring	770 / 1,220.903	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	770 / 1,220.903		
Subtotal: ODS Situational Awareness	770 / 1,220.903	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	770 / 1,220.903		
Modification Item 5 of 10: Program/Engineering Support														
A Kits														
Recurring														
Government PM support	- / 222.868	- / 22.115	- / 16.788	- / 11.653	- / -	- / 11.653	- / 10.099	- / 10.302	- / 10.507	- / 10.718	Continuing	Continuing		
Contractor PM Support	- / 129.693	- / 6.462	- / 2.352	- / 3.481	- / -	- / 3.481	- / 3.017	- / 3.077	- / 3.139	- / 3.201	Continuing	Continuing		
Subtotal: Recurring	- / 352.561	- / 28.577	- / 19.140	- / 15.134	- / -	- / 15.134	- / 13.116	- / 13.379	- / 13.646	- / 13.919	Continuing	Continuing		
Subtotal: Program/Engineering Support	- / 352.561	- / 28.577	- / 19.140	- / 15.134	- / -	- / 15.134	- / 13.116	- / 13.379	- / 13.646	- / 13.919	Continuing	Continuing		
Modification Item 6 of 10: BFVS Track and Suspension Upgrade														
A Kits														
Recurring														
BFVS ECP 1 Modification	2,943 / 534.851	401 / 73.266	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3,344 / 608.117		
Subtotal: Recurring	2,943 / 534.851	401 / 73.266	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3,344 / 608.117		
Subtotal: BFVS Track and Suspension Upgrade	2,943 / 534.851	401 / 73.266	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3,344 / 608.117		
Modification Item 7 of 10: BFVS Mobility Modification														
A Kits														
Recurring														
BFVS A4 Modification	285 / 1,028.898	53 / 253.487	27 / 141.628	- / 27.188	- / -	- / 27.188	- / 4.019	- / 10.599	- / 3.423	- / 6.434	- / -	365 / 1,475.676		
Subtotal: Recurring	285 / 1,028.898	53 / 253.487	27 / 141.628	- / 27.188	- / -	- / 27.188	- / 4.019	- / 10.599	- / 3.423	- / 6.434	- / -	365 / 1,475.676		
Subtotal: BFVS Mobility Modification	285 / 1,028.898	53 / 253.487	27 / 141.628	- / 27.188	- / -	- / 27.188	- / 4.019	- / 10.599	- / 3.423	- / 6.434	- / -	365 / 1,475.676		
Modification Item 8 of 10: Conversion to M2														
A Kits														

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army										Date: March 2023		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20				P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)						Modification Number / Title: GZ2400 / Bradley Program (MOD)		
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:					
Models of Systems Affected: M2 & M3 Bradley Vehicle Variants			Modification Type: Increase Performance					Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Recurring												
Conversion M3-M2	195 / 132.245	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 132.245
Fielding	- / 15.942	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.942
<i>Subtotal: Recurring</i>	195 / 138.187	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 138.187
<i>Subtotal: Conversion to M2</i>	195 / 138.187	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 138.187
Modification Item 9 of 10: Braking Safety/ Transmission Industrial Base												
A Kits												
Recurring												
Transmission	266 / 87.834	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	266 / 87.834
<i>Subtotal: Recurring</i>	266 / 87.834	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	266 / 87.834
<i>Subtotal: Braking Safety/Transmission Industrial Base</i>	266 / 87.834	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	266 / 87.834
Modification Item 10 of 10: Survivability Enhancements												
B Kits												
Recurring												
Underbelly Interium Solution (UBIS)	600 / 17.144	- / 0.227	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	600 / 17.371
<i>Subtotal: Recurring</i>	600 / 17.144	- / 0.227	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	600 / 17.371
<i>Subtotal: Survivability Enhancements</i>	600 / 17.144	- / 0.227	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	600 / 17.371
<i>Subtotal: Procurement, All Modification Items</i>	17,419 / 6,738.018	597 / 446.614	27 / 239.217	187 / 149.289	- / -	187 / 149.289	140 / 119.412	140 / 101.644	140 / 100.020	140 / 103.016	Continuing	Continuing
Installation												
Modification Item 2 of 10: BFVS High Priority Improvements	9,684 / -	143 / 0.954	- / -	179 / 1.052	- / -	179 / 1.052	140 / 1.071	140 / 1.094	140 / 1.116	140 / 1.138	- / -	10,566 / 6.425
Modification Item 3 of 10: Training Equipment Devices	- / -	- / -	- / -	8 / -	- / -	8 / -	- / -	- / -	- / -	- / -	- / -	8 / -
Modification Item 6 of 10: BFVS Track and Suspension Upgrade	2,943 / -	401 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3,344 / -
Modification Item 7 of 10: BFVS Mobility Modification	285 / -	53 / 12.817	27 / 21.181	- / 17.933	- / -	- / 17.933	- / 19.424	- / -	- / -	- / -	- / -	365 / 51.355
Modification Item 8 of 10: Conversion to M2	195 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / -
Modification Item 10 of 10: Survivability Enhancements	- / -	88 / -	352 / -	160 / -	- / -	160 / -	- / -	- / -	- / -	- / -	- / -	600 / -
<i>Subtotal: Installation</i>	13,107 / -	685 / 13.771	379 / 21.181	347 / 8.985	- / -	347 / 8.985	140 / 10.495	140 / 1.094	140 / 1.116	140 / 1.138	- / -	15,078 / 57.780
Total												

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)	Modification Number / Title: GZ2400 / Bradley Program (MOD)
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Models of Systems Affected: M2 & M3 Bradley Vehicle Variants	Modification Type: Increase Performance	Related RDT&E PEs:
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Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>
Total Cost (Procurement + Support + Installation)	6,738.018	460.385	260.398	158.274	-	158.274	129.907	102.738	101.136	104.154	Continuing	Continuing

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)			Modification Number / Title: GZ2400 / Bradley Program (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 1 of 10: Bradley Reactive Armor							
Manufacturer Information							
Manufacturer Name: General Dynamics Armament & Technical Products (GDATP)				Manufacturer Location: Burlington, VT			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Contractor					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)	Modification Number / Title: GZ2400 / Bradley Program (MOD)
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ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Modification Item 2 of 10: BFVS High Priority Improvements

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
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Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 12
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Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Mar 2022	Mar 2023	Mar 2024	Mar 2025			
Delivery Dates	Mar 2023	Mar 2024	Mar 2025	Mar 2026			

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	9,684 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9,684 / 0.000
FY 2022	- / -	143 / 0.954	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	143 / 0.954
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	179 / 1.052	- / -	179 / 1.052	- / -	- / -	- / -	- / -	- / -	179 / 1.052
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	140 / 1.071	- / -	- / -	- / -	- / -	140 / 1.071
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	140 / 1.094	- / -	- / -	- / -	140 / 1.094
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	140 / 1.116	- / -	- / -	140 / 1.116
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	140 / 1.138	- / -	140 / 1.138
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	9,684 / 0.000	143 / 0.954	- / -	179 / 1.052	- / -	179 / 1.052	140 / 1.071	140 / 1.094	140 / 1.116	140 / 1.138	- / -	10,566 / 6.425

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	9,684	-	-	-	-	143	-	-	-	179	-	-	-	140	-	-	-	140	-	-	-	140	-	-	-	140	-	-	-	-	10,566
Out	9,684	-	-	-	-	-	-	-	-	36	36	36	35	45	45	45	44	35	35	35	35	35	35	35	35	35	35	35	35	140	10,566

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Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)	Modification Number / Title: GZ2400 / Bradley Program (MOD)
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Modification Item 3 of 10: Training Equipment Devices

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 9	Production Leadtime (in Months): 12

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Apr 2022	Apr 2023					
Delivery Dates	Apr 2023	Apr 2024					

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	8 / 0.000	- / -	8 / 0.000	- / -	- / -	- / -	- / -	- / -	8 / 0.000
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	8 / 0.000	- / -	8 / 0.000	- / -	- / -	- / -	- / -	- / -	8 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army					Date: March 2023		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)			Modification Number / Title: GZ2400 / Bradley Program (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 4 of 10: ODS Situational Awareness							
Manufacturer Information							
Manufacturer Name: BAE				Manufacturer Location: YORK, PA			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Contractor					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)			Modification Number / Title: GZ2400 / Bradley Program (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 5 of 10: Program/Engineering Support							
Manufacturer Information							
Manufacturer Name: N/A				Manufacturer Location: WARREN, MI			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 1			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Dec 2021	Dec 2022	Dec 2023	Dec 2024			
Delivery Dates	Jan 2022	Jan 2023	Jan 2024	Jan 2025			
Installation Information							
Method of Implementation (Organic): x					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)	Modification Number / Title: GZ2400 / Bradley Program (MOD)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Modification Item 6 of 10: BFVS Track and Suspension Upgrade

Manufacturer Information

Manufacturer Name: Loc Performance Products Inc./Other Manufacturer Location: Various

Administrative Leadtime (in Months): Production Leadtime (in Months): 13

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Dec 2021						
Delivery Dates	Jan 2023						

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	2,115 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,115 / 0.000
FY 2022	414 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	414 / 0.000
FY 2023	414 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	414 / 0.000
FY 2024	- / -	401 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	401 / 0.000
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2,943 / 0.000	401 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3,344 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
In	2,943	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,344
Out	2,219	104	103	103	104	104	103	103	100	100	100	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,344

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)	Modification Number / Title: GZ2400 / Bradley Program (MOD)
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ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Modification Item 7 of 10: BFVS Mobility Modification

Manufacturer Information

Manufacturer Name: BAE				Manufacturer Location: York, PA			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 12			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	May 2022	May 2023					
Delivery Dates	Nov 2023	Nov 2024					

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	187 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	187 / 0.000
FY 2022	98 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	98 / 0.000
FY 2023	- / -	53 / 12.817	27 / 21.181	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	80 / 33.998
FY 2024	- / -	- / -	- / -	0 / 7.933	- / -	0 / 7.933	- / -	- / -	- / -	- / -	- / -	0 / 7.933
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	0 / 9.424	- / -	- / -	- / -	- / -	0 / 9.424
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	285 / 0.000	53 / 12.817	27 / 21.181	0 / 7.933	- / -	0 / 7.933	0 / 9.424	- / -	- / -	- / -	- / -	365 / 51.355

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	180	19	46	27	6	7	6	15	21	21	14	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	163	-	-	-	17	19	46	27	6	7	6	15	21	21	14	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)	Modification Number / Title: GZ2400 / Bradley Program (MOD)
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Modification Item 8 of 10: Conversion to M2

Manufacturer Information

Manufacturer Name: BAE	Manufacturer Location: YORK, PA
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	195 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	195 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	195
Out	195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	195

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army					Date: March 2023		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)			Modification Number / Title: GZ2400 / Bradley Program (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 9 of 10: Braking Safety/Transmission Industrial Base							
Manufacturer Information							
Manufacturer Name: L3COM				Manufacturer Location: MUSKEGON, MI			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Contractor					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 1678GZ2400 / Bradley Program (MOD)	Modification Number / Title: GZ2400 / Bradley Program (MOD)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Modification Item 10 of 10: Survivability Enhancements

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 10	Production Leadtime (in Months): 6

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Unit (Unit incurs installation cost)

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	88 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	88 / 0.000
FY 2023	- / -	- / -	352 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	352 / 0.000
FY 2024	- / -	- / -	- / -	160 / 0.000	- / -	160 / 0.000	- / -	- / -	- / -	- / -	- / -	160 / 0.000
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	88 / 0.000	352 / 0.000	160 / 0.000	- / -	160 / 0.000	- / -	- / -	- / -	- / -	- / -	600 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	88	88	88	88	88	88	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:** 2072GA0400 / M109 FOV Modifications

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604854A **Other Related Program Elements:** 0604854A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,198.238	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-	-	2,386.634
Less PY Advance Procurement (<i>\$ in Millions</i>)	16.321	-	-	-	-	-	-	-	-	-	-	16.321
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,181.917	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-	-	2,370.313
Plus CY Advance Procurement (<i>\$ in Millions</i>)	16.321	-	-	-	-	-	-	-	-	-	-	16.321
Total Obligation Authority (<i>\$ in Millions</i>)	2,198.238	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-	-	2,386.634

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

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

Description:

This funding line is a key enabler of the Army Modernization Priorities in support of the Long-Range Precision Fires.

The M109 Family of Vehicles (FOV) Modifications line consists of the M109A6 Paladin Self-Propelled Howitzer (SPH) and the M992A2 Field Artillery Ammunition Supply Vehicle (FAASV), the M109A7 Self-Propelled Howitzer (SPH) and M992A3 Carrier, Ammunition, Tracked (CAT). The funding profile provides for the engineering design, testing, hardware procurement, and application in support of improvements to resolve problems identified in the field and approved by the Materiel Developer and Combat Developer for fielded M109 Family of Vehicles (FOV). These improvements address maintaining operational readiness rates, improving vehicle safety and operation, and integrate new equipment. Funding also supports aspects of program management necessary to support the fielded fleet of Self-Propelled Howitzers (SPHs) and Field Artillery Ammunition Supply Vehicles (FAASVs) / Carrier, Ammunition, Tracked (CATs) in 16 Active Duty Army and National Guard Battalions organic to Armored Brigade Combat Team (ABCT); 10 Battalions organic to Army Fires Brigades; 3 Rotational unit sets; 4 Army Prepositioned Stock sets; 2 Institutional Training Sites, 2 Combat Training Centers, and other facility vehicles for System Technical Support (STS) work for development and qualification of proposed engineering changes and technical improvements. Engineering Change Proposals (ECPs) will be applied through a modification work order and procured for the M109 Family of Vehicles.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:** 2072GA0400 / M109 FOV Modifications

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604854A **Other Related Program Elements:** 0604854A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-3a	GA0400 / M109 FOV Modifications (Increase Performance)		B		- / 2,198.238	- / 0.333	- / 3.028	- / 90.986	- / -	- / 90.986
P-40	Total Gross/Weapon System Cost				- / 2,198.238	- / 0.333	- / 3.028	- / 90.986	- / -	- / 90.986

Exhibits Schedule					FY 2025	FY 2026	FY 2027	FY 2028	To Complete	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-3a	GA0400 / M109 FOV Modifications (Increase Performance)		B		- / 47.688	- / 46.361	- / -	- / -	- / -	- / 2,386.634
P-40	Total Gross/Weapon System Cost				- / 47.688	- / 46.361	- / -	- / -	- / -	- / 2,386.634

*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 2024 base procurement funding in the amount of \$90.986 million supports M109 Family of Vehicles (FOV) modifications, program office requirements and Systems Technical Support (STS) contractor support for the Self-Propelled Family of Howitzers. Program management is for the oversight of Other Governmental Agencies (OGAs) that provide material support to the system and the fielded units to ensure configuration management; provides the analysis and root cause of safety and non-safety related field failures; provides M109 Family of Vehicles (FOV) Depot Overhaul support as needed; provides planning and execution for obsolescence of parts, sub-systems and systems; develop and coordinate shrinking supply base mitigation strategies with item managers. The program office works to lower operation and sustainment costs and improve unit readiness by analyzing data and determining solutions to solve the field's problem sets. Manages the Systems Technical Support/Sustainment Systems Technical Support (STS/SSTS) contract that provides direct support to the program and the field. Contractor provides the direct engineering support required to integrate modification kits; provides the logistical support to provision, source, and support the field with material solutions/changes. Contractor also updates/corrects all system technical data, provisioning data, technical manuals, and Interactive-Electronic Technical Manuals (IETMs). Contractor provides emergency field support to the Government as required for essential mission accomplishment.

A portion of this funding line is a key enabler of the Army Modernization Priorities in support of the Long-Range Precision Fires.

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.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army										Date: March 2023		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20				P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications						Modification Number / Title: GA0400 / M109 FOV Modifications		
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,198.238	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-	-	2,386.634
Less PY Advance Procurement (<i>\$ in Millions</i>)	16.321	-	-	-	-	-	-	-	-	-	-	16.321
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,181.917	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-	-	2,370.313
Plus CY Advance Procurement (<i>\$ in Millions</i>)	16.321	-	-	-	-	-	-	-	-	-	-	16.321
Total Obligation Authority (<i>\$ in Millions</i>)	2,198.238	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-	-	2,386.634
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

M109 Family of Vehicles (FOV) Program Office [MOD 1]: Government System Engineering and Program Management support for the M109 Family of Vehicles (FOV) program.

Interior Blast Mitigation Retrofit Hardware/Fielding (M109A7) [MOD 3]: Procures and installs improved floor mat and ammo restraints to prevent those objects from becoming secondary projectiles in an underbody blast event.

Chief of Section protection (Increment I) Hardware and Fielding [MOD 4]: Ballistic riser with transparent armor, is intended to improve the situational awareness and personnel survivability when firing the crew-served weapon of the current systems in fielded Fires Battalions. These fixes also address shortcomings in training identified in Initial Operational Testing related to "combat only" configurations.

Ventilation System Dust Cover [MOD 5]: Procure/retrofit hardware to integrate pre-filtration design that reduces frequency of ventilation system clogging.

Self-Propelled Howitzer (SPH) Crew Compartment Automated Fire Extinguishing System (AFES) Retrofit Hardware & Fielding [MOD 6]: Procure/retrofit hardware to expand to full crew compartment coverage from personnel heater coverage.

Self-Propelled Howitzer (SPH) Rearview Camera Hardware [MOD 7]: Provide the vehicle operators with live video feed of the rear of the vehicle to aid in maneuver and provide situational awareness.

Driver's Seatbelt Redesign Hardware [MOD 8]: Correcting issues associated with the Driver's Seatbelt and related components that comprise the seatbelt restraint system.

Floor Drainage Hardware [MOD 9]: Correct issues with standing, dirty liquids held inside the Self-Propelled Howitzer (SPH) and CAT vehicles by providing proper drainage of standing water, mud and solvents thus alleviating slippery floors and damage to equipment stored inside the vehicles.

Carrier, Ammunition, Tracked (CAT) Tanker Bar/Crowbar Stowage HW [MOD 10]: Improve the Carrier, Ammunition, Tracked (CAT) tanker/crowbar stowage retention.

Inadvertent Automated Fire Extinguishing System (AFES) Sealed Soldered Switch Hardware [MOD 11]: Release a sealed solder switch in order to reduce the susceptibility to resistive shorting during wash-down which leads to inadvertent discharges of Automated Fire Extinguishing System (AFES).

VanAxel Fan Hardware [MOD 12]: Replace the current ventilation system motor, fitted with carbon-brushes, with a new brush-less electric motor. The proposed new fan and motor assembly will serve to lower the noise level to an acceptable level and comply with requirements.

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Exhibit P-3a, Individual Modification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications	Modification Number / Title: GA0400 / M109 FOV Modifications
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

Fielding Hardware [MOD 13]: United States Government (USG) Program Management (PM) and fielding support funding is required in order to execute Modification Work Orders (MWOs) as part of the Life Cycle Management of the M109 Family of Vehicles (FOV) fleet; ensure the fleet is supported - equipment readiness.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-

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Exhibit P-3a, Individual Modification: PB 2024 Army										Date: March 2023			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20					P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications					Modification Number / Title: GA0400 / M109 FOV Modifications			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: M109 Howitzer and M992 FAASV/CAT Vehicles				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
Modification Item 1 of 13: M109 Family of Vehicles Program Office													
A Kits													
Recurring													
Program Management (PM) Support	- / 18.192	- / 0.333	- / 0.368	- / 1.052	- / -	- / 1.052	- / 1.294	- / 1.093	- / -	- / -	- / -	- / 22.332	
Subtotal: Recurring	- / 18.192	- / 0.333	- / 0.368	- / 1.052	- / -	- / 1.052	- / 1.294	- / 1.093	- / -	- / -	- / -	- / 22.332	
Subtotal: M109 Family of Vehicles Program Office	- / 18.192	- / 0.333	- / 0.368	- / 1.052	- / -	- / 1.052	- / 1.294	- / 1.093	- / -	- / -	- / -	- / 22.332	
Modification Item 2 of 13: Prior Years Closed Modifications													
A Kits													
Recurring													
Prior Closed Modifications	- / 2,174.482	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2,174.482	
Subtotal: Recurring	- / 2,174.482	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2,174.482	
Subtotal: Prior Years Closed Modifications	- / 2,174.482	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2,174.482	
Modification Item 3 of 13: Interior Blast Mitigation Retrofit Hardware/Fielding (M109A7)													
A Kits													
Recurring													
Hardware	- / -	- / -	347 / 1.860	800 / 4.535	- / -	800 / 4.535	600 / 3.469	245 / 1.060	- / -	- / -	- / -	1,992 / 10.924	
Subtotal: Recurring	- / -	- / -	347 / 1.860	800 / 4.535	- / -	800 / 4.535	600 / 3.469	245 / 1.060	- / -	- / -	- / -	1,992 / 10.924	
Non-Recurring													
Hardware	- / 5.564	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.564	
Subtotal: Non-Recurring	- / 5.564	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.564	
Subtotal: Interior Blast Mitigation Retrofit Hardware/Fielding (M109A7)	- / 5.564	- / -	347 / 1.860	800 / 4.535	- / -	800 / 4.535	600 / 3.469	245 / 1.060	- / -	- / -	- / -	1,992 / 16.488	
Modification Item 4 of 13: Chief of Section Protection (Inc. I) Hardware Fielding													
A Kits													
Non-Recurring													
Hardware	- / -	- / -	- / -	296 / 72.484	- / -	296 / 72.484	124 / 30.972	50 / 12.739	- / -	- / -	- / -	470 / 116.195	
Subtotal: Non-Recurring	- / -	- / -	- / -	296 / 72.484	- / -	296 / 72.484	124 / 30.972	50 / 12.739	- / -	- / -	- / -	470 / 116.195	

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Exhibit P-3a, Individual Modification: PB 2024 Army										Date: March 2023			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20					P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications					Modification Number / Title: GA0400 / M109 FOV Modifications			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: M109 Howitzer and M992 FAASV/CAT Vehicles				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<i>Subtotal: Chief of Section Protection (Inc. I) Hardware Fielding</i>													
<i>- / - - / - - / - 296 / 72.484 - / - 296 / 72.484 124 / 30.972 50 / 12.739 - / - - / - - / - 470 / 116.195</i>													
Modification Item 5 of 13: Ventilation System Dust Cover													
B Kits													
Recurring													
Hardware													
<i>- / - - / - - / - 200 / 2.748 - / - 200 / 2.748 155 / 2.172 - / - - / - - / - 355 / 4.920</i>													
<i>Subtotal: Recurring</i>													
<i>- / - - / - - / - 200 / 2.748 - / - 200 / 2.748 155 / 2.172 - / - - / - - / - 355 / 4.920</i>													
<i>Subtotal: Ventilation System Dust Cover</i>													
<i>- / - - / - - / - 200 / 2.748 - / - 200 / 2.748 155 / 2.172 - / - - / - - / - 355 / 4.920</i>													
Modification Item 6 of 13: Self-Propelled Howitzer Crew Compartment Automated Fire Extinguishing System Hardware and Fielding													
A Kits													
Non-Recurring													
SPH Crew Compartment AFES Retrofit HW													
<i>- / - - / - 20 / 0.800 200 / 8.254 - / - 200 / 8.254 186 / 7.830 - / - - / - - / - 406 / 16.884</i>													
<i>Subtotal: Non-Recurring</i>													
<i>- / - - / - 20 / 0.800 200 / 8.254 - / - 200 / 8.254 186 / 7.830 - / - - / - - / - 406 / 16.884</i>													
<i>Subtotal: Self-Propelled Howitzer Crew Compartment Automated Fire Extinguishing System Hardware and Fielding</i>													
<i>- / - - / - 20 / 0.800 200 / 8.254 - / - 200 / 8.254 186 / 7.830 - / - - / - - / - 406 / 16.884</i>													
Modification Item 7 of 13: Self-Propelled Howitzer Rearview Camera Hardware													
A Kits													
Non-Recurring													
SPH Rearview Camera HW													
<i>- / - - / - - / - - / - - / - 211 / 5.514 - / - - / - - / - 211 / 5.514</i>													
<i>Subtotal: Non-Recurring</i>													
<i>- / - - / - - / - - / - - / - 211 / 5.514 - / - - / - - / - 211 / 5.514</i>													
<i>Subtotal: Self-Propelled Howitzer Rearview Camera Hardware</i>													
<i>- / - - / - - / - - / - - / - 211 / 5.514 - / - - / - - / - 211 / 5.514</i>													
Modification Item 8 of 13: Driver's Seatbelt Redesign Hardware													
A Kits													
Non-Recurring													
Driver's Seatbelt Redesign HW													
<i>- / - - / - - / - - / - - / - 469 / 2.165 - / - - / - - / - 469 / 2.165</i>													
<i>Subtotal: Non-Recurring</i>													
<i>- / - - / - - / - - / - - / - 469 / 2.165 - / - - / - - / - 469 / 2.165</i>													

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Exhibit P-3a, Individual Modification: PB 2024 Army										Date: March 2023			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20					P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications					Modification Number / Title: GA0400 / M109 FOV Modifications			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: M109 Howitzer and M992 FAASV/CAT Vehicles				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<i>Subtotal: Driver's Seatbelt Redesign Hardware</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	469 / 2.165	- / -	- / -	- / -	469 / 2.165	
Modification Item 9 of 13: Floor Drainage Hardware													
A Kits													
Non-Recurring													
Driver's Seatbelt Redesign HW	- / -	- / -	- / -	- / -	- / -	- / -	- / -	467 / 12.917	- / -	- / -	- / -	467 / 12.917	
<i>Subtotal: Non-Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	467 / 12.917	- / -	- / -	- / -	467 / 12.917	
<i>Subtotal: Floor Drainage Hardware</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	467 / 12.917	- / -	- / -	- / -	467 / 12.917	
Modification Item 10 of 13: Carrier, Ammunition, Tracked Tanker Bar/Crowbar Stowage Hardware													
A Kits													
Non-Recurring													
CAT Tanker Bar/Crowbar Stowage HW	- / -	- / -	- / -	- / -	- / -	- / -	- / -	229 / 2.534	- / -	- / -	- / -	229 / 2.534	
<i>Subtotal: Non-Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	229 / 2.534	- / -	- / -	- / -	229 / 2.534	
<i>Subtotal: Carrier, Ammunition, Tracked Tanker Bar/Crowbar Stowage Hardware</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	229 / 2.534	- / -	- / -	- / -	229 / 2.534	
Modification Item 11 of 13: Inadvertent Automated Fire Extinguishing System (AFES) Sealed Soldered Switch Hardware													
A Kits													
Non-Recurring													
Inadvertent AFES Sealed Soldered Switch	- / -	- / -	- / -	- / -	- / -	- / -	- / -	469 / 0.018	- / -	- / -	- / -	469 / 0.018	
<i>Subtotal: Non-Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	469 / 0.018	- / -	- / -	- / -	469 / 0.018	
<i>Subtotal: Inadvertent Automated Fire Extinguishing System (AFES) Sealed Soldered Switch Hardware</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	469 / 0.018	- / -	- / -	- / -	469 / 0.018	
Modification Item 12 of 13: VanAxiel Fan Hardware													
A Kits													
Non-Recurring													
VanAxiel Fan HW	- / -	- / -	- / -	- / -	- / -	- / -	- / -	224 / 4.342	- / -	- / -	- / -	224 / 4.342	
<i>Subtotal: Non-Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	224 / 4.342	- / -	- / -	- / -	224 / 4.342	
<i>Subtotal: VanAxiel Fan Hardware</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	224 / 4.342	- / -	- / -	- / -	224 / 4.342	
Modification Item 13 of 13: Fielding Hardware													
A Kits													

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Exhibit P-3a, Individual Modification: PB 2024 Army										Date: March 2023			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20				P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications						Modification Number / Title: GA0400 / M109 FOV Modifications			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: M109 Howitzer and M992 FAASV/CAT Vehicles				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Recurring													
Fielding HW	- / -	- / -	- / -	- / 1.913	- / -	- / 1.913	- / 1.951	- / 3.979	- / -	- / -	- / -	- / 7.843	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / 1.913	- / -	- / 1.913	- / 1.951	- / 3.979	- / -	- / -	- / -	- / 7.843	
<i>Subtotal: Fielding Hardware</i>	- / -	- / -	- / -	- / 1.913	- / -	- / 1.913	- / 1.951	- / 3.979	- / -	- / -	- / -	- / 7.843	
<i>Subtotal: Procurement, All Modification Items</i>	- / 2,198.238	- / 0.333	367 / 3.028	1,496 / 90.986	- / -	1,496 / 90.986	1,065 / 47.688	2,364 / 46.361	- / -	- / -	- / -	5,292 / 2,386.634	
Installation													
Modification Item 3 of 13: Interior Blast Mitigation Retrofit Hardware/Fielding (M109A7)	- / -	- / -	685 / -	800 / -	- / -	800 / -	600 / -	245 / -	- / -	- / -	- / -	2,330 / -	
Modification Item 4 of 13: Chief of Section Protection (Inc. I) Hardware Fielding	- / -	- / -	- / -	296 / -	- / -	296 / -	124 / -	50 / -	- / -	- / -	- / -	470 / -	
Modification Item 5 of 13: Ventilation System Dust Cover	- / -	- / -	- / -	200 / -	- / -	200 / -	193 / -	117 / -	- / -	- / -	- / -	510 / -	
Modification Item 6 of 13: Self-Propelled Howitzer Crew Compartment Automated Fire Extinguishing System Hardware and Fielding	- / -	- / -	- / -	120 / -	- / -	120 / -	193 / -	93 / -	- / -	- / -	- / -	406 / -	
Modification Item 7 of 13: Self-Propelled Howitzer Rearview Camera Hardware	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	211 / -	- / -	- / -	211 / -	
Modification Item 8 of 13: Driver's Seatbelt Redesign Hardware	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	469 / -	- / -	- / -	469 / -	
Modification Item 9 of 13: Floor Drainage Hardware	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	467 / -	- / -	- / -	467 / -	
Modification Item 10 of 13: Carrier, Ammunition, Tracked Tanker Bar/Crowbar Stowage Hardware	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	229 / -	- / -	- / -	229 / -	
Modification Item 11 of 13: Inadvertent Automated Fire Extinguishing System (AFES) Sealed Soldered Switch Hardware	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	469 / -	- / -	- / -	469 / -	
Modification Item 12 of 13: VanAxiel Fan Hardware	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	224 / -	- / -	- / -	224 / -	
<i>Subtotal: Installation</i>	- / -	- / -	685 / -	1,416 / -	- / -	1,416 / -	1,110 / -	505 / -	2,069 / -	- / -	- / -	5,785 / -	
Total													
Total Cost (Procurement + Support + Installation)	2,198.238	0.333	3.028	90.986	-	90.986	47.688	46.361	-	-	-	2,386.634	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications			Modification Number / Title: GA0400 / M109 FOV Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 1 of 13: M109 Family of Vehicles Program Office							
Manufacturer Information							
Manufacturer Name: x				Manufacturer Location: x			
Administrative Leadtime (<i>in Months</i>):				Production Leadtime (<i>in Months</i>):			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Oct 2021	Oct 2022	Oct 2023	Oct 2024	Oct 2025		
Delivery Dates	Oct 2021	Oct 2022	Oct 2023	Oct 2024	Oct 2025		
Installation Information							
Method of Implementation (Organic): N/A					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications			Modification Number / Title: GA0400 / M109 FOV Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 2 of 13: Prior Years Closed Modifications							
Manufacturer Information							
Manufacturer Name: x				Manufacturer Location: x			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): x					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications	Modification Number / Title: GA0400 / M109 FOV Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Modification Item 3 of 13: Interior Blast Mitigation Retrofit Hardware/Fielding (M109A7)

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

Administrative Leadtime (in Months): 2 Production Leadtime (in Months): 6

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates			Dec 2023	Dec 2024	Dec 2025		
Delivery Dates			Jun 2024	Jun 2025	Jun 2026		

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	685 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	685 / 0.000
FY 2024	- / -	- / -	- / -	800 / 0.000	- / -	800 / 0.000	- / -	- / -	- / -	- / -	- / -	800 / 0.000
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	600 / 0.000	- / -	- / -	- / -	- / -	600 / 0.000
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	245 / 0.000	- / -	- / -	- / -	245 / 0.000
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	685 / 0.000	800 / 0.000	- / -	800 / 0.000	600 / 0.000	245 / 0.000	- / -	- / -	- / -	2,330 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot								
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4										
In	-	-	-	-	-	-	-	-	-	800	-	-	-	600	-	-	-	245	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,645
Out	-	-	-	-	-	-	-	-	-	-	-	400	400	-	-	300	300	-	-	122	123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,645

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications	Modification Number / Title: GA0400 / M109 FOV Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Modification Item 4 of 13: Chief of Section Protection (Inc. I) Hardware Fielding

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

Administrative Leadtime (in Months): 2 Production Leadtime (in Months): 3

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates			Jun 2024	Mar 2025	Mar 2026		
Delivery Dates			Sep 2024	Jul 2025	Jul 2026		

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	296 / 0.000	- / -	296 / 0.000	- / -	- / -	- / -	- / -	- / -	296 / 0.000
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	124 / 0.000	- / -	- / -	- / -	- / -	124 / 0.000
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	50 / 0.000	- / -	- / -	- / -	50 / 0.000
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	296 / 0.000	- / -	296 / 0.000	124 / 0.000	50 / 0.000	- / -	- / -	- / -	470 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	296	-	-	-	124	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	470
Out	-	-	-	-	-	-	-	-	-	-	-	74	74	74	74	31	31	31	31	12	12	13	13	-	-	-	-	-	-	-	470

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications	Modification Number / Title: GA0400 / M109 FOV Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Modification Item 5 of 13: Ventilation System Dust Cover

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

Administrative Leadtime (in Months): 2 Production Leadtime (in Months): 3

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates			Jun 2024	Jun 2025			
Delivery Dates			Sep 2024	Sep 2025			

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	200 / 0.000	- / -	200 / 0.000	155 / 0.000	- / -	- / -	- / -	- / -	355 / 0.000
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	38 / 0.000	117 / 0.000	- / -	- / -	- / -	155 / 0.000
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	200 / 0.000	- / -	200 / 0.000	193 / 0.000	117 / 0.000	- / -	- / -	- / -	510 / 0.000

Installation Schedule

PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	200	-	-	-	155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	355
Out	-	-	-	-	-	-	-	-	-	-	-	50	50	50	50	38	39	39	39	-	-	-	-	-	-	-	-	-	-	355

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications	Modification Number / Title: GA0400 / M109 FOV Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Modification Item 6 of 13: Self-Propelled Howitzer Crew Compartment Automated Fire Extinguishing System Hardware and Fielding

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
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Administrative Leadtime (in Months):	Production Leadtime (in Months): 12
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Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates			Oct 2023	Oct 2024			
Delivery Dates			Oct 2024	Oct 2024			

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	20 / 0.000	- / -	20 / 0.000	- / -	- / -	- / -	- / -	- / -	20 / 0.000
FY 2024	- / -	- / -	- / -	100 / 0.000	- / -	100 / 0.000	100 / 0.000	- / -	- / -	- / -	- / -	200 / 0.000
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	93 / 0.000	93 / 0.000	- / -	- / -	- / -	186 / 0.000
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	120 / 0.000	- / -	120 / 0.000	193 / 0.000	93 / 0.000	- / -	- / -	- / -	406 / 0.000

Installation Schedule

PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	200	-	-	-	186	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	50	50	50	50	46	47	46	47	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications	Modification Number / Title: GA0400 / M109 FOV Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Modification Item 7 of 13: Self-Propelled Howitzer Rearview Camera Hardware

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

Administrative Leadtime (in Months): Production Leadtime (in Months): 9

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates					Jun 2026		
Delivery Dates					Mar 2027		

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	211 / 0.000	- / -	- / -	211 / 0.000
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	211 / 0.000	- / -	- / -	211 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	53	53	52	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications	Modification Number / Title: GA0400 / M109 FOV Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Modification Item 8 of 13: Driver's Seatbelt Redesign Hardware

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

Administrative Leadtime (in Months): Production Leadtime (in Months): 9

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates					Jun 2026		
Delivery Dates					Mar 2027		

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	469 / 0.000	- / -	- / -	469 / 0.000
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	469 / 0.000	- / -	- / -	469 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	469	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	117	117	118	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications	Modification Number / Title: GA0400 / M109 FOV Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Modification Item 9 of 13: Floor Drainage Hardware

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

Administrative Leadtime (in Months): Production Leadtime (in Months): 9

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates					Jun 2026		
Delivery Dates					Mar 2027		

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	467 / 0.000	- / -	- / -	467 / 0.000
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	467 / 0.000	- / -	- / -	467 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	467	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	117	117	116	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications	Modification Number / Title: GA0400 / M109 FOV Modifications
--	---	--

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

Modification Item 10 of 13: Carrier, Ammunition, Tracked Tanker Bar/Crowbar Stowage Hardware

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

Administrative Leadtime (in Months): Production Leadtime (in Months): 9

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates					Jun 2026		
Delivery Dates					Mar 2027		

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	229 / 0.000	- / -	- / -	229 / 0.000
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	229 / 0.000	- / -	- / -	229 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	229	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57	57	57	58	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications	Modification Number / Title: GA0400 / M109 FOV Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Modification Item 11 of 13: Inadvertent Automated Fire Extinguishing System (AFES) Sealed Soldered Switch Hardware

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

Administrative Leadtime (in Months): Production Leadtime (in Months): 9

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates					Jun 2026		
Delivery Dates					Mar 2027		

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	469 / 0.000	- / -	- / -	469 / 0.000
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	469 / 0.000	- / -	- / -	469 / 0.000

Installation Schedule

	PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	469	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	117	117	118	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications	Modification Number / Title: GA0400 / M109 FOV Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Modification Item 12 of 13: VanAxiel Fan Hardware

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

Administrative Leadtime (in Months): Production Leadtime (in Months): 9

Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates					Jun 2026		
Delivery Dates					Mar 2027		

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	224 / 0.000	- / -	- / -	224 / 0.000
FY 2027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	224 / 0.000	- / -	- / -	224 / 0.000

Installation Schedule

PYS	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	224	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	56	56	56	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 2072GA0400 / M109 FOV Modifications			Modification Number / Title: GA0400 / M109 FOV Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 13 of 13: Fielding Hardware							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates			Oct 2023	Oct 2024	Oct 2025		
Delivery Dates			Oct 2023	Oct 2024	Oct 2025		
Installation Information							
Method of Implementation (Organic): .					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:** 2073GZ0410 / Paladin Integrated Management (PIM)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203743A

Line Item MDAP/MAIS Code: 466

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	309	43	43	24	-	24	22	37	40	39	135	692
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3,649.402	662.900	680.089	469.152	-	469.152	444.189	594.346	643.854	644.484	2,285.972	10,074.388
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	3,649.402	662.900	680.089	469.152	-	469.152	444.189	594.346	643.854	644.484	2,285.972	10,074.388
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3,649.402	662.900	680.089	469.152	-	469.152	444.189	594.346	643.854	644.484	2,285.972	10,074.388

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	11,810.362	15,416.279	15,816.023	19,548.000	-	19,548.000	20,190.409	16,063.405	16,096.350	16,525.231	16,933.126	14,558.364

Description:

This funding line is a key enabler of the Army Modernization Priorities in support of Long-Range Precision Fires.

Paladin Integrated Management (PIM) is an Acquisition Category (ACAT) level IC Major Defense Acquisition Program (MDAP). The program will replace the current fleet of M109 Family of Vehicles (FOV) consisting of the M109A6 Self Propelled Howitzer and the M992A2 Field Artillery Ammunition Supply Vehicle (FAASV). PIM is an Army Modernization Program that addresses a critical capability gap created by the Non-Line of Sight Cannon termination in June of 2009, as well as obsolescence and size/weight and power (SWaP) issues in the M109 FOV current fleet. The PIM system integrates the current Bradley Fighting Vehicle suspension and drivetrain items, Future Combat Systems (FCS) developed Electric Gun Drive systems and current fleet armament systems into a new chassis that provides better force protection, survivability and mobility over the antecedent vehicles (M109A6 and M992A2). PIM is a two vehicle system: The M109A7 Self-Propelled Howitzer (SPH) and the M992A3 Carrier Ammunition Tracked (CAT). The SPH has all characteristics listed above. The CAT utilizes all these same components and traits less those that relate directly to the cannon system. The PIM system replaces the current M109 FOV on a one for one basis, in the cannon fires battalions in the Armored Brigade Combat Team Formations and in the Echelons Above Brigade (EAB). The PIM system will continue fielding through FY 2033. The overall intent is to increase Soldier force protection, vehicle survivability, provide an appropriate amount of Space, Weight, and Power (SWaP) capacity to add future capabilities, reduce life cycle costs and extend the life of the M109 FOV.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	31	24	12	-	12	11	19	20	19
	Total Obligation Authority	477.904	382.354	254.222	-	254.222	239.122	299.492	340.046	340.676
ANG	Quantity	12	19	12	-	12	11	18	20	20
	Total Obligation Authority	184.996	297.735	214.930	-	214.930	205.067	294.854	303.808	303.808
Total: Secondary Distribution	Quantity	43	43	24	-	24	22	37	40	39
	Total Obligation Authority	662.900	680.089	469.152	-	469.152	444.189	594.346	643.854	644.484

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:**
 2073GZ0410 / Paladin Integrated Management (PIM)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203743A

Line Item MDAP/MAIS Code: 466

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	GZ0410 / Paladin Integrated Management (PIM)	P-5a, P-21	A		309 / 3,649.402	43 / 662.900	43 / 680.089	24 / 469.152	- / -	24 / 469.152
P-40	Total Gross/Weapon System Cost				309 / 3,649.402	43 / 662.900	43 / 680.089	24 / 469.152	- / -	24 / 469.152

*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 2024 Base Procurement dollars in the amount of \$469.152 million support all aspects of the PIM Full Rate Production (FRP) program. Funding also supports the Government Program Management support required to provide oversight on contractor production operations that include: Quality Process Management, Program Management Reviews (weekly, monthly, and quarterly), Government Furnished Property and Material Management, and engineering activities resulting from waivers/deviations/problem resolution and supplier/vendor industrial base. Funding also supports work being completed to provide Government Furnished Material (GFM) such as cannon assemblies to the vehicle prime production contractor as well as the contractor operations needed to sustain production operations for the acquisition of materials/components/end items, manufacturing and assembly of subsystems, and the integration, test, and checkout operations required to produce all 24 vehicle sets funded with FY 2024 Base Procurement funding. The unit cost represents a cost per vehicle set (1 Self Propelled Howitzer (SPH) and 1 Carrier Ammunition Tracked (CAT)).

This funding line is a key enabler of the Army Modernization Priorities in support of Long-Range Precision Fires.

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.

Army Acquisition Objective (AAO): 689 sets

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2073GZ0410 / Paladin Integrated Management (PIM)	Item Number / Title [DODIC]: GZ0410 / Paladin Integrated Management (PIM)

ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:				
Resource Summary			Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity <i>(Units in Each)</i>	309	43	43	24	-	24		
Gross/Weapon System Cost <i>(\$ in Millions)</i>	3,649.402	662.900	680.089	469.152	-	469.152		
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-		
Net Procurement (P-1) <i>(\$ in Millions)</i>	3,649.402	662.900	680.089	469.152	-	469.152		
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-		
Total Obligation Authority <i>(\$ in Millions)</i>	3,649.402	662.900	680.089	469.152	-	469.152		
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-		
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	11,810.362	15,416.279	15,816.023	19,548.000	-	19,548.000		

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Recurring Cost																		
SYS ENG/ PROG MGMT (CONTRACTOR)	-	-	44.210	-	-	19.229	-	-	19.778	-	-	20.173	-	-	-	-	-	20.173
SYSTEM TECHNICAL SUPPORT	-	-	294.503	-	-	60.070	-	-	57.705	-	-	53.307	-	-	-	-	-	53.307
SYS TEST & EVALUATION (CONTRACTOR)	-	-	27.979	-	-	2.018	-	-	2.285	-	-	2.100	-	-	-	-	-	2.100
SYS ENG/ PROG MGMT (GOVERNMENT)	-	-	149.520	-	-	20.830	-	-	21.266	-	-	21.709	-	-	-	-	-	21.709
SYS TEST & EVALUATION (GOVERNMENT)	-	-	12.286	-	-	1.029	-	-	1.967	-	-	1.071	-	-	-	-	-	1.071
TRANSPORTATION	-	-	2.890	-	-	1.098	-	-	1.000	-	-	0.977	-	-	-	-	-	0.977
<i>Subtotal: Recurring Cost</i>	-	-	531.388	-	-	104.274	-	-	104.001	-	-	99.337	-	-	-	-	-	99.337
Non Recurring Cost																		
PRODUCTION FACILITIZATION	-	-	31.474	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	31.474	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	562.862	-	-	104.274	-	-	104.001	-	-	99.337	-	-	-	-	-	99.337
Hardware Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2073GZ0410 / Paladin Integrated Management (PIM)	Item Number / Title [DODIC]: GZ0410 / Paladin Integrated Management (PIM)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Recurring Cost																		
MANUFACTURING ^(†)	7,738.377	310	2,398.897	10,737.950	40	429.518	9,852.140	43	423.642	11,592.667	24	278.224	-	-	-	11,592.667	24	278.224
GOVERNMENT FURNISHED EQUIPMENT (GFE)	-	-	356.883	-	-	64.532	-	-	59.665	-	-	33.825	-	-	-	-	-	33.825
THEATRE PROVIDED EQUIPMENT	-	-	45.424	-	-	16.896	-	-	17.236	-	-	17.580	-	-	-	-	-	17.580
RECURRING PRODUCTION - OTHER	-	-	49.499	-	-	10.308	-	-	22.405	-	-	4.199	-	-	-	-	-	4.199
ENGINEERING CHANGE ORDERS	-	-	73.311	-	-	17.671	-	-	28.948	-	-	20.562	-	-	-	-	-	20.562
<i>Subtotal: Recurring Cost</i>	-	-	2,924.014	-	-	538.925	-	-	551.896	-	-	354.390	-	-	-	-	-	354.390
<i>Subtotal: Hardware Cost</i>	-	-	2,924.014	-	-	538.925	-	-	551.896	-	-	354.390	-	-	-	-	-	354.390
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	2.557	-	-	1.188	-	-	0.560	-	-	0.571	-	-	-	-	-	0.571
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	2.557	-	-	1.188	-	-	0.560	-	-	0.571	-	-	-	-	-	0.571
Support - Data Cost																		
Technical Publications	-	-	21.631	-	-	1.419	-	-	1.459	-	-	1.488	-	-	-	-	-	1.488
<i>Subtotal: Support - Data Cost</i>	-	-	21.631	-	-	1.419	-	-	1.459	-	-	1.488	-	-	-	-	-	1.488
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	53.847	-	-	7.759	-	-	11.873	-	-	8.074	-	-	-	-	-	8.074
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	53.847	-	-	7.759	-	-	11.873	-	-	8.074	-	-	-	-	-	8.074
Support - Initial Support Equipment (ISE) Cost																		
Support and Handling Equipment	-	-	9.946	-	-	2.118	-	-	2.153	-	-	2.080	-	-	-	-	-	2.080
<i>Subtotal: Support - Initial Support Equipment (ISE) Cost</i>	-	-	9.946	-	-	2.118	-	-	2.153	-	-	2.080	-	-	-	-	-	2.080
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	21.254	-	-	4.250	-	-	3.755	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 2073GZ0410 / Paladin Integrated Management (PIM)	Item Number / Title [DODIC]: GZ0410 / Paladin Integrated Management (PIM)
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	21.254	-	-	4.250	-	-	3.755	-	-	-	-	-	-	-	-	-
Support - Support Equipment Cost																		
Maintenance Equipment	-	-	30.560	-	-	2.967	-	-	4.392	-	-	3.212	-	-	-	-	-	3.212
<i>Subtotal: Support - Support Equipment Cost</i>	-	-	30.560	-	-	2.967	-	-	4.392	-	-	3.212	-	-	-	-	-	3.212
Support - Training Cost																		
Equipment	-	-	22.731	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Training Cost</i>	-	-	22.731	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	11,810.362	309	3,649.402	15,416.279	43	662.900	15,816.023	43	680.089	19,548.000	24	469.152	-	-	-	19,548.000	24	469.152

Remarks:

Quantity:
 - FY 2022: Quantity awarded will be 40 vehicle sets (vs. 43 shown on the P-40) based on February 2023 contract award which will definitize in 3rd quarter FY 2023.

Unit Cost:
 - FY 2024: Increased unit cost in unit manufacturing cost estimate is due to the lower quantity and higher than anticipated economic rates and market circumstances.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	31	24	12	-	12
	Total Obligation Authority	477.904	382.354	254.222	-	254.222
ANG	Quantity	12	19	12	-	12
	Total Obligation Authority	184.996	297.735	214.930	-	214.930
Total: Secondary Distribution	Quantity	43	43	24	-	24
	Total Obligation Authority	662.900	680.089	469.152	-	469.152

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

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army							Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 2073GZ0410 / Paladin Integrated Management (PIM)				Item Number / Title [DODIC]: GZ0410 / Paladin Integrated Management (PIM)					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
MANUFACTURING ^(†)		2022	BAE / York	SS / FPIF	TACOM, Warren, MI	Oct 2022	Oct 2024	40	10,737.950	N		
MANUFACTURING ^(†)		2023	BAE / York	SS / FPIF	TACOM, Warren, MI	Apr 2023	Aug 2025	43	9,852.140	N		
MANUFACTURING ^(†)		2024	BAE / York	SS / FPIF	TACOM, Warren, MI	Mar 2024	Aug 2026	24	11,592.667	N		

^(†) indicates the presence of a P-21

Remarks:

Quantity:

- The FY 2022 quantity will be updated to reflect 40 vehicle sets (vs. 43 shown on the P-40) based on follow-on award in February 2023 for 40 vehicle sets which will definitize in 3rd quarter FY 2023.

Unit Cost:

- The FY 2024 increase in unit manufacturing cost estimate is due to the lower quantity and higher than anticipated economic rates and market circumstances.

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Exhibit P-21, Production Schedule: PB 2024 Army															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20										P-1 Line Item Number / Title: 2073GZ0410 / Paladin Integrated Management (PIM)										Item Number / Title [DODIC]: GZ0410 / Paladin Integrated Management (PIM)									

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2023															Fiscal Year 2024															B A L A N C E		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023															Calendar Year 2024															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							
MANUFACTURING																																					
Prior Years Deliveries: 310																																					
	1	2022	ARMY	40	0	40	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40			
	1	2023	ARMY	43	0	43																												43			
	1	2024	ARMY	24	0	24																												24			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							

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Exhibit P-21, Production Schedule: PB 2024 Army															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20										P-1 Line Item Number / Title: 2073GZ0410 / Paladin Integrated Management (PIM)										Item Number / Title [DODIC]: GZ0410 / Paladin Integrated Management (PIM)									

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2025													Fiscal Year 2026													B A L A N C E		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 4	BAL D U E A S O F 1 O C T	Calendar Year 2025													Calendar Year 2026													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
MANUFACTURING																																	
Prior Years Deliveries: 310																																	
1	2022	ARMY		40	0	40	4	4	4	4	3	3	3	3	3	3	3													0			
1	2023	ARMY		43	0	43	-	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	3	3	3	3	3			0			
1	2024	ARMY		24	0	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	20				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2024 Army															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20										P-1 Line Item Number / Title: 2073GZ0410 / Paladin Integrated Management (PIM)										Item Number / Title [DODIC]: GZ0410 / Paladin Integrated Management (PIM)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2027												Fiscal Year 2028												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2026	BAL DUE AS OF 1 OCT	Calendar Year 2027												Calendar Year 2028												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P

MANUFACTURING

Prior Years Deliveries: 310																																				
1	2022	ARMY	40	40	0																															0
1	2023	ARMY	43	43	0																															0
1	2024	ARMY	24	4	20	2	2	2	2	2	2	2	2	2	2																					0

						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P						
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Exhibit P-21, Production Schedule: PB 2024 Army								Date: March 2023				
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20					P-1 Line Item Number / Title: 2073GZ0410 / Paladin Integrated Management (PIM)				Item Number / Title [DODIC]: GZ0410 / Paladin Integrated Management (PIM)			

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	BAE - York	2	4	5	0	15	30	45	0	15	30	45

Remarks:
Quantity:
- FY 2022: Quantity awarded will be 40 vehicle sets (vs. 43 shown on the P-40), Follow-on Award of Early Order Material (EOM) for 40 vehicle sets in February 2023 and will definitize the award in 3rd quarter FY2023.

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

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:**
 3700GA0570 / IMPROVED RECOVERY VEHICLE (M88 HERCULES)

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: 539

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	933	0	21	-	-	-	14	12	14	14	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,898.083	51.725	132.203	41.058	-	41.058	151.351	158.437	153.870	144.625	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,898.083	51.725	132.203	41.058	-	41.058	151.351	158.437	153.870	144.625	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,898.083	51.725	132.203	41.058	-	41.058	151.351	158.437	153.870	144.625	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	3,106.198	-	6,295.381	-	-	-	10,810.786	13,203.083	10,990.714	10,330.357	Continuing	Continuing

Description:

The M88 Heavy Equipment Recovery Combat Utility Lift and Evacuation System (HERCULES) Family of Vehicles (FoV) provides towing, winching, and hoisting operations to support battlefield Single Vehicle Recovery (SVR) operations and evacuation of heavy tanks and other tracked combat vehicles. The current M88A2 HERCULES variant provides support to vehicles up to 70-tons. It recovers tanks mired to differing depths, removes/replaces M1 turrets and power packs, and uprights overturned/mired heavy combat vehicles with a 70-ton continuous pull main winch capacity. The Army is on track to modernize the M88 FoV to regain SVR due to the increased weight (up to 80 tons with force protection kits applied) of some of the Army's major combat vehicle systems and the loss of SVR capabilities. This will be accomplished by applying the single vehicle recovery Engineering Change Proposal (ECP) that includes modified non-developmental technologies comprising a new Power Train (Engine & Transmission), new Suspension, and Improved Track to the M88A2 vehicle resulting in the M88A3 variant vehicle. The M88A3 vehicles will bring back the operational capability of the single vehicle recovery. The increased winching and lifting capability can accommodate all 80-ton Abrams variants. Without this increased capability, units must use two M88A2 recovery vehicles to perform the necessary spectrum of recovery operations.

The Combat Recovery Vehicle (CRS) program provides funding for the procurement of M88 Family of Vehicles (FoV), as well as personnel, engineering, design, testing, hardware procurement, and application of improvements to resolve safety, readiness, and vehicle recovery operation issues identified in the field and approved by the Materiel Developer and Combat Developer. These improvements will increase operational readiness rates to meet objectives, improve vehicle safety and operation, and integrate new equipment to meet field requirements. Engineering Change Proposals (ECPs) will be applied and procured through modification work order (MWO) for the M88 FoV. Specific modifications include improvements related to engine reliability, automatic fire extinguishing system (AFES), power management system, improved automotive performance related to braking, and special tools delta kits. Funding also maintains M88 HERCULES vehicle fielding support and M88 Safety/Reliability ECPs (e.g., Auxiliary Power Unit, Battery Disconnect). Funding supports requirements for production facilitization updates and improvements at the Vehicle Upgrade and Overhaul Center (VUOC) in Anniston, AL, the manufacturing facility in York, PA, and associated vendors.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	-	9	-	-	-	14	12	14	14
Total Obligation Authority	51.725	84.270	41.058	-	41.058	151.351	158.437	153.870	144.625
ANG	-	12	-	-	-	-	-	-	-
Total Obligation Authority	-	47.933	-	-	-	-	-	-	-
Total:	-	21	-	-	-	14	12	14	14

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles

P-1 Line Item Number / Title:
 3700GA0570 / IMPROVED RECOVERY VEHICLE (M88 HERCULES)

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: 539

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Secondary Distribution	Total Obligation Authority	51.725	132.203	41.058	-	41.058	151.351	158.437	153.870	144.625

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:** 3700GA0570 / IMPROVED RECOVERY VEHICLE (M88 HERCULES)

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: 539

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	GA0570 / IMPROVED RECOVERY VEHICLE (M88 HERCULES)	P-5a	A		933 / 2,898.083	0 / 51.725	21 / 132.203	- / 41.058	- / -	- / 41.058
P-40	Total Gross/Weapon System Cost				933 / 2,898.083	0 / 51.725	21 / 132.203	- / 41.058	- / -	- / 41.058

*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 2024 Base Procurement dollars in the amount of \$41.058 million supports the M88 Family of Vehicles (FoV) System Technical Support (STS) and modification priorities. Modification priorities include the Engine Reliability Improvement (EFI) effort (converting the mechanical fuel injection system into an electronic fuel injection system) and procurement of kits associated with the Automatic Fire Extinguishing System (AFES) and other safety improvements. Funding maintains STS efforts such as STS management, Total Ownership Cost Reduction (TOCR), field feedback, fire investigations, facility vehicle maintenance, Technical Data Package (TDP) maintenance, Environmental, Safety, and Occupational Health (ESOH) corrosion prevention and control, and modification integration for the M88 FoV currently being produced and fielded.

M88 FoV modifications also address improvements for increasing operational readiness rates to meet objectives: improving vehicle safety and operation and integrating new equipment. The M88 FoV Engineering Change Proposals (ECPs) require application to the vehicles through a Modification Work Order (MWO). Specific modifications include safety and reliability modifications to the engine; converting the mechanical fuel injection to an electronic fuel injection system, providing on-board engine diagnostics, as well as upgrading the exhaust manifolds and turbos that have been identified as significant initiation sources during fire investigations. Additional modifications finalize the updates to the automatic fire extinguishing system (AFES); the vehicle power management system which includes the auxiliary power unit system (APU), special tools delta kits, improvements to automotive performance related to braking, and other operation and safety improvements.

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.

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 3700GA0570 / IMPROVED RECOVERY VEHICLE (M88 HERCULES)	Item Number / Title [DODIC]: GA0570 / IMPROVED RECOVERY VEHICLE (M88 HERCULES)

ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:				
Resource Summary			Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)	933	0	21	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,898.083	51.725	132.203	41.058	-	-	-	41.058
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	2,898.083	51.725	132.203	41.058	-	-	-	41.058
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	2,898.083	51.725	132.203	41.058	-	-	-	41.058
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	3,106.198	-	6,295.381	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Recurring Cost																		
M88 Vehicle Manufacturing - Contractor ^(†)	2,282.237	933	2,129.327	-	-	-	3,295.667	21	69.209	-	-	-	-	-	-	-	-	-
Vehicle Manufacturing - GFE	-	-	102.304	-	-	-	117.381	21	2.465	-	-	-	-	-	-	-	-	-
Hull Reclamation	-	-	85.603	-	-	-	216.000	21	4.536	-	-	-	-	-	-	-	-	-
Fielding (TPF & NET)	-	-	97.241	-	-	0.140	253.524	21	5.324	-	-	-	-	-	-	-	-	-
Transportation	-	-	16.248	-	-	-	12.381	21	0.260	-	-	-	-	-	-	-	-	-
Test (Production Verification Testing)	-	-	25.808	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Technical Support	-	-	337.766	-	-	38.863	-	-	35.464	-	-	30.821	-	-	-	-	-	30.821
Program Management	-	-	103.786	-	-	5.690	-	-	7.106	-	-	7.237	-	-	-	-	-	7.237
Modifications	-	-	-	-	-	7.032	-	-	7.839	-	-	3.000	-	-	-	-	-	3.000
<i>Subtotal: Recurring Cost</i>	-	-	<i>2,898.083</i>	-	-	<i>51.725</i>	-	-	<i>132.203</i>	-	-	<i>41.058</i>	-	-	-	-	-	<i>41.058</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>2,898.083</i>	-	-	<i>51.725</i>	-	-	<i>132.203</i>	-	-	<i>41.058</i>	-	-	-	-	-	<i>41.058</i>
Gross/Weapon System Cost	3,106.198	933	2,898.083	-	0	51.725	6,295.381	21	132.203	-	-	41.058	-	-	-	-	-	41.058

Remarks:

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 3700GA0570 / IMPROVED RECOVERY VEHICLE (M88 HERCULES)	Item Number / Title [DODIC]: GA0570 / IMPROVED RECOVERY VEHICLE (M88 HERCULES)

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

Modification funding should not be included in the unit cost. The calculation for unit cost is the sum of M88 Vehicle Manufacturing Contractor, Vehicle Manufacturing Government Furnished Equipment (GFE), Hull Reclamation, Fielding (TPF) & (NET), and Transportation divided by vehicle quantity.

The Average Procurement Unit Cost (APUC) for FY 2023 is \$3.895M for a quantity of 21 M88A2s.

After the submission of the FY 2023 budget, the program office requested a zero sum (within BLI) realignment of efforts and funding in the amount of \$69.332 million to support the procurement of M88A2 vehicles. Due to the timing of receipt of funding and the contracting administrative process, the planned FY 2023 contract award shifted from June 2023 to November 2023.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	-	9	-	-	-
	Total Obligation Authority	51.725	84.270	41.058	-	41.058
ANG	Quantity	-	12	-	-	-
	Total Obligation Authority	-	47.933	-	-	-
Total:	Quantity	0	21	-	-	-
Secondary Distribution	Total Obligation Authority	51.725	132.203	41.058	-	41.058

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

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2024 Army							Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 3700GA0570 / IMPROVED RECOVERY VEHICLE (M88 HERCULES)				Item Number / Title [DODIC]: GA0570 / IMPROVED RECOVERY VEHICLE (M88 HERCULES)					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
M88 Vehicle Manufacturing - Contractor		2023	BAE Systems / Anniston, AL	C / FFP	Detroit Arsenal, MI	Nov 2023	Feb 2025	21	3,295.667	Y		

Remarks:
 After the submission of the FY 2023 budget, the program office requested a zero sum (within BLI) realignment of efforts and funding in the amount of \$69.332 million to support the procurement of M88A2 vehicles. Due to the timing of receipt of funding and the contracting administrative process, the planned FY 2023 contract award shifted from June 2023 to November 2023.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles
P-1 Line Item Number / Title: 4520GZ3250 / Assault Bridge (Mod)

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	384.674	2.136	-	-	-	-	-	5.369	6.167	6.167	-	404.513
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	384.674	2.136	-	-	-	-	-	5.369	6.167	6.167	-	404.513
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	384.674	2.136	-	-	-	-	-	5.369	6.167	6.167	-	404.513

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	5,574.986	534.000	-	-	-	-	-	536.900	513.917	513.917	-	3,780.495

Description:

The Assault Bridge (MOD) budget line funds the modifications of assault bridging equipment. It is used to procure hardware, materials, and hardware installation cost required to complete the modification. Modifications are performed to improve survivability, correct safety deficiencies, increase mission capabilities, extend the useful life, improve supportability, upgrade existing technology, increase efficiency, improve readiness, reduce risk of obsolescence and to meet new legal and regulatory requirements. By modifying existing equipment, the Army maintains a ready, supportable inventory of equipment that meets current requirements and regulations at a cost considerably below that of buying new equipment.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.136	-	-	-	-	-	5.369	6.167	6.167
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.136	-	-	-	-	-	5.369	6.167	6.167

Justification:

There is no FY 2024 budget request for this funding line.

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.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:** 5129G80571 / M88 FOV MODS

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203735A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	154.272	0.334	-	-	-	-	-	-	-	-	-	154.606
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	154.272	0.334	-	-	-	-	-	-	-	-	-	154.606
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	154.272	0.334	-	-	-	-	-	-	-	-	-	154.606

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

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

Description:

The M88 Fleet Modification Program provided funding for personnel, engineering design, testing, hardware procurement, and application in support of improvements to resolve problems identified in the field and be approved by the Materiel and Combat Developer for fielded M88 family of vehicles (FOV). These improvements addressed maintaining operational readiness rates, improving vehicle safety and operation, and integrating new equipment. Modifications included improvements related to engine reliability, automatic fire extinguishing system (AFES), power management system, improved automotive performance related to braking, and special tools delta kits.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	0.334	-	-	-	-	-	-	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	0.334	-	-	-	-	-	-	-	-

Justification:

There is no FY 2024 budget request for this funding line.

The M88 Modification efforts and funding for the 5129G80571 / M88 FOV MODS, were realigned to 3700GA0570 / Improved Recovery Vehicle (M88A2 HERCULES), starting in FY 2022.

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.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:**
 5225GZ3001 / Joint Assault Bridge

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604804A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	97	17	6	24	-	24	29	22	28	34	-	257
Gross/Weapon System Cost (<i>\$ in Millions</i>)	552.540	110.588	36.990	159.804	-	159.804	180.097	142.708	179.259	213.572	-	1,575.558
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	552.540	110.588	36.990	159.804	-	159.804	180.097	142.708	179.259	213.572	-	1,575.558
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	552.540	110.588	36.990	159.804	-	159.804	180.097	142.708	179.259	213.572	-	1,575.558

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	5,696.289	6,505.176	6,165.000	6,658.500	-	6,658.500	6,210.241	6,486.727	6,402.107	6,281.529	-	6,130.576

Description:

The Joint Assault Bridge (JAB) replaces the existing Wolverine and the M48A5/M60 series chassis Armored Vehicle Launched Bridge (AVLB) to meet current maneuver force survivability, suitability and supportability requirements. The Joint Assault Bridge (JAB) is an M1A1 Abrams Chassis-based engineer vehicle with a heavy M1A2 Abrams suspension that launches and retrieves the 18.3 meter Heavy Assault Scissor Bridge (HASB), which is currently rated at Military Load Class (MLC) 115. Armored Vehicle Launched Bridges (AVLBs) are upgraded to the Military Load Class (MLC) 115 Heavy Assault Scissor Bridge (HASB) as part of the JAB production program at Anniston Army Depot (ANAD). The JAB system will be employed with Army Armored Brigade Combat Teams (ABCT) in the Brigade Engineer Battalions (BEB), Engineer Mobility Augmentation Companies (MAC), and Combat Engineer Companies - Armored (CEC-A). The production / acquisition strategy includes a partnership with Anniston Army Depot (ANAD) for the production of the Abrams chassis. Initial Operational Test (IOT) was completed November 2020. The Type Classification Standard (TC-STD) and Full Rate Production (FRP) approval decision was granted in March 2021.

Joint Assault Bridge (JAB) Army Acquisition Objective (AAO): 297

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	10	6	18	-	18	19	12	10	10
	63.197	36.990	120.140	-	120.140	118.440	77.201	61.448	61.240
ANG	7	-	6	-	6	10	7	10	10
	47.391	-	39.664	-	39.664	61.657	43.574	64.677	62.696
AR	-	-	-	-	-	-	3	8	14
	-	-	-	-	-	-	21.933	53.134	89.636
Total: Secondary Distribution	17	6	24	-	24	29	22	28	34
	110.588	36.990	159.804	-	159.804	180.097	142.708	179.259	213.572

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:** 5225GZ3001 / Joint Assault Bridge

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604804A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	GZ3001 / Joint Assault Bridge	P-5a, P-21	A		97 / 552.540	17 / 110.588	6 / 36.990	24 / 159.804	- / -	24 / 159.804
P-40	Total Gross/Weapon System Cost				97 / 552.540	17 / 110.588	6 / 36.990	24 / 159.804	- / -	24 / 159.804

*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 2024 Base Procurement dollars in the amount of \$145.434 million procures twenty-four (24) Joint Assault Bridges (JABs). Funding supports the organic industrial base with work to be performed at Anniston Army Depot (ANAD), including purchase of long lead material and subsequent production effort.

FY 2024 Base Procurement dollars in the amount of \$14.370 million procures two (2) Joint Assault Bridges (JABs) in support of the European Deterrence Initiative (EDI). FY 2024 EDI funding has decreased by \$9.078 million from FY 2023 due to reduction in submitted Combatant Command (COCOM) requirements.

The Joint Assault Bridge (JAB) fills a critical need in the Army Armored Brigade Combat Teams (ABCT) / Brigade Engineer Battalions (BEB), Engineer Mobility Augmentation Companies (MAC), Combat Engineer Companies - Armored (CEC-A) formations, and provides a system that offers the Combatant Commander improved readiness and enhanced survivability, mobility, and sustainability over the legacy M48A5/M60 Armored Vehicle Launched Bridge (AVLB).

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.

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Exhibit P-5, Cost Analysis: PB 2024 Army											Date: March 2023				
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20						P-1 Line Item Number / Title: 5225GZ3001 / Joint Assault Bridge					Item Number / Title [DODIC]: GZ3001 / Joint Assault Bridge				
ID Code (A=Service Ready, B=Not Service Ready) : A											MDAP/MAIS Code:				
Resource Summary				Prior Years		FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	
Procurement Quantity (Units in Each)				97		17		6		24		-		24	
Gross/Weapon System Cost (\$ in Millions)				552.540		110.588		36.990		159.804		-		159.804	
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
Net Procurement (P-1) (\$ in Millions)				552.540		110.588		36.990		159.804		-		159.804	
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
Total Obligation Authority (\$ in Millions)				552.540		110.588		36.990		159.804		-		159.804	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>															
Initial Spares (\$ in Millions)				-		-		-		-		-		-	
Gross/Weapon System Unit Cost (\$ in Thousands)				5,696.289		6,505.176		6,165.000		6,658.500		-		6,658.500	

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Recurring Cost																		
Hardware - Low Rate Initial Production (LRIP)	1,416.646	79	111.915	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - Full Rate Production (FRP) ⁽¹⁾	1,171.042	24	28.105	1,241.588	17	21.107	1,192.167	6	7.153	1,913.708	24	45.929	-	-	-	1,913.708	24	45.929
Government Furnished Materials (GFM) Anniston Army Depot (ANAD) Rolling Chassis	2,617.087	103	269.560	3,689.529	17	62.722	2,839.833	6	17.039	3,735.750	24	89.658	-	-	-	3,735.750	24	89.658
Bridge Upgrades	490.524	103	50.524	476.824	17	8.106	498.000	6	2.988	535.417	24	12.850	-	-	-	535.417	24	12.850
Engineering Changes	-	-	24.675	-	-	2.704	-	-	2.581	-	-	2.000	-	-	-	-	-	2.000
System Engineering/ Program Management	-	-	35.159	-	-	4.163	-	-	4.205	-	-	4.205	-	-	-	-	-	4.205
Support Equipment/ Associated Support Items Of Equipment (ASIOE)	-	-	7.992	-	-	1.014	-	-	1.220	-	-	2.700	-	-	-	-	-	2.700
Fielding	-	-	5.315	-	-	1.679	-	-	0.900	-	-	1.600	-	-	-	-	-	1.600
First Destination Transportation - FDT	-	-	2.681	-	-	0.411	-	-	0.280	-	-	0.500	-	-	-	-	-	0.500
Subtotal: Recurring Cost	-	-	535.926	-	-	101.906	-	-	36.366	-	-	159.442	-	-	-	-	-	159.442
Non Recurring Cost																		
Logistics Products	-	-	6.132	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2024 Army												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20						P-1 Line Item Number / Title: 5225GZ3001 / Joint Assault Bridge						Item Number / Title [DODIC]: GZ3001 / Joint Assault Bridge					
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Simulator - Common Driver Trainer (CDT) Update	-	-	10.482	-	-	3.121	-	-	0.304	-	-	0.362	-	-	-	-	-	0.362
Interim Contractor Logistics Support (ICLS)	-	-	-	-	-	0.746	-	-	0.320	-	-	-	-	-	-	-	-	-
Reprogrammed dollars	-	-	-	-	-	4.815	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	16.614	-	-	8.682	-	-	0.624	-	-	0.362	-	-	-	-	-	0.362
<i>Subtotal: Flyaway Cost</i>	-	-	552.540	-	-	110.588	-	-	36.990	-	-	159.804	-	-	-	-	-	159.804
Gross/Weapon System Cost	5,696.289	97	552.540	6,505.176	17	110.588	6,165.000	6	36.990	6,658.500	24	159.804	-	-	-	6,658.500	24	159.804

Remarks:

The lowered FY 2023 Anniston Army Depot (ANAD) unit cost is not expected to persist into FY 2024. The ANAD unit cost for FY 2024 is projected to be higher due to the rising cost of materials, increasing material surcharges, overhead, and labor rates.

The FY 2023 to FY 2024 hardware contractual unit cost increase is mainly attributable to the addition of Bridge Launch Mechanism Armor Engineering Change Proposal.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	10	6	18	-	18
	Total Obligation Authority	63.197	36.990	120.140	-	120.140
ANG	Quantity	7	-	6	-	6
	Total Obligation Authority	47.391	-	39.664	-	39.664
Total: Secondary Distribution	Quantity	17	6	24	-	24
	Total Obligation Authority	110.588	36.990	159.804	-	159.804

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

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 5225GZ3001 / Joint Assault Bridge	Item Number / Title [DODIC]: GZ3001 / Joint Assault Bridge
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware - Full Rate Production (FRP) ^(†)		2022	DRS Sustainment Systems, Inc. / Saint Louis, MO	C / FFP	TACOM, Warren, MI	May 2022	Jun 2023	17	1,241.588	Y		
Hardware - Full Rate Production (FRP) ^(†)		2023	DRS Sustainment Systems, Inc. / Saint Louis, MO	C / FFP	TACOM, Warren, MI	Oct 2022	Jun 2024	6	1,192.167	Y		
Hardware - Full Rate Production (FRP) ^(†)		2024	DRS Sustainment Systems, Inc. / Saint Louis, MO	C / FFP	Tacom, Warren,MI	Nov 2023	Dec 2024	24	1,913.708	Y		

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20 **P-1 Line Item Number / Title:** 5225GZ3001 / Joint Assault Bridge **Item Number / Title [DODIC]:** GZ3001 / Joint Assault Bridge

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024													Fiscal Year 2025													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024													Calendar Year 2025													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Hardware - Full Rate Production (FRP)																																	
Prior Years Deliveries: 24																																	
1		2022	ARMY	17	7	10	2	2	1	1	1	1	1	1															0				
1		2023	ARMY	6	0	6	-	-	-	-	-	-	-	-	2	2	2												0				
1		2024	ARMY	24	0	24		A	-	-	-	-	-	-	-	-	-	-	-	1	3	3	3	3	3	3	3	2	0				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2024 Army	Date: March 2023
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Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 5225GZ3001 / Joint Assault Bridge	Item Number / Title [DODIC]: GZ3001 / Joint Assault Bridge
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	DRS Sustainment Systems, Inc. - Saint Louis, MO	2	2	4	0	5	14	19	0	2	13	15

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

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

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:**
 6500GA0750 / Abrams Upgrade Program

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203735A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1,879	90	90	34	-	34	45	49	21	70	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	14,652.881	1,145.837	1,247.340	697.883	-	697.883	1,085.453	1,207.482	700.564	1,548.754	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	2,064.494	-	-	-	-	-	102.440	111.455	59.992	144.359	-	2,482.740
Net Procurement (P-1) (<i>\$ in Millions</i>)	12,588.387	1,145.837	1,247.340	697.883	-	697.883	983.013	1,096.027	640.572	1,404.395	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	2,064.494	-	-	102.440	-	102.440	111.455	59.992	144.359	-	-	2,482.740
Total Obligation Authority (<i>\$ in Millions</i>)	14,652.881	1,145.837	1,247.340	800.323	-	800.323	1,094.468	1,156.019	784.931	1,404.395	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	7,798.234	12,731.522	13,859.333	20,525.971	-	20,525.971	24,121.178	24,642.490	33,360.190	22,125.057	Continuing	Continuing

Description:

The Abrams Tank Program enables combat supremacy by upgrading existing tank variants to the M1A2 System Enhancement Package version 3 (SEPV3) configuration, modifying the fielded tank fleet and managing the industrial base (IB) recurring cost of daily operations and support of the production plants. This program focuses on planning, preparing, and executing all efforts required to produce the current and future Abrams tanks. The Abrams Program provides total package fielding and associated training devices to support fleet upgrades and modifications.

The Abrams Tank Production Program upgrades existing Abrams tank variants to the M1A2 SEPV3 tank configuration in order to enhance tank survivability, lethality, and mobility while improving overall system reliability and durability. The M1A2 SEPV3 incorporates turret and hull armor upgrades, mine blast improvements, reactive armor tiles, lightweight belly armor, improved countermine equipment, Improved Explosive Device (IED) jamming equipment, a Total Integrated Engine Revitalization (TIGER) engine, an upgraded transmission, an Auxiliary Power Unit (APU), improved power generation & distribution, Ammunition Data Link (ADL) for smart munitions, Embedded Training, Blue Force Tracker, Block 1 Second Generation Forward Looking Infra-Red (FLIR) technology, and improved computer systems with Line Replaceable Modules (LRMs) to include microprocessors, high-definition color flat panel displays, increased memory capacity, Gigabit Ethernet, and a new operating system designed to run the Common Operating Environment (COE) software. The Abrams Tank Production Program funds the costs required for the daily operation of the production plants producing M1A2 SEPV3 tanks and components. The Abrams Tank Production Program also mitigates SEPV3 tank obsolescence through Bill of Materiel (BOM) screening, last chance buys, and hardware refresh projects.

The M1A2 SEPV4 is a "lethality" system improvement that provides the warfighter with significantly greater operational capabilities including the key technology 3rd Generation Forward Looking Infrared (3GEN FLIR). Advanced Procurement supports the procurement of initial SEPV4 3GEN FLIR components. The M1A2 SEPV4 is also equipped with new color cameras to the gunner/commander primary sights, an improved laser range finder, integration of a laser warning receiver system, improved lethality via Fire Control System (FCS) digital communication with a new Advanced Multi-Purpose round, improved accuracy via integration of a meteorological sensor, and improved onboard diagnostics.

The Abrams Tank Fleet Modification Program provides System Technical Support (STS) for critical Abrams suppliers. The program applies the Material Developer and Combat Developer approved modifications to the fielded Abrams family of vehicles either through field modifications at the unit or through application during vehicle recapitalization.

Beginning in FY 2022, Abrams Modification (Mod) efforts and funding were realigned from the 6406GA0700 / M1 Abrams Tank (MOD) funding line for greater program transparency, responsiveness, and flexibility. Also beginning in FY 2021, the Abrams Modification Government Owned - Government Operated (GOGO) and Government Owned - Contractor Operated (GOCO) efforts were realigned to the 3270GC0050 / Production Base Support funding line for greater transparency.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army							Date: March 2023			
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles					P-1 Line Item Number / Title: 6500GA0750 / Abrams Upgrade Program					
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: 0203735A				
Line Item MDAP/MAIS Code: N/A										

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	-	-	-	-	45	49	21	70
	Total Obligation Authority	-	-	222.350	-	222.350	1,094.468	1,156.019	784.931	1,404.395
ANG	Quantity	90	90	34	-	34	-	-	-	-
	Total Obligation Authority	1,145.837	1,247.340	577.973	-	577.973	-	-	-	-
Total:	Quantity	90	90	34	-	34	45	49	21	70
Secondary Distribution	Total Obligation Authority	1,145.837	1,247.340	800.323	-	800.323	1,094.468	1,156.019	784.931	1,404.395

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:**
 6500GA0750 / Abrams Upgrade Program

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203735A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	GA0750 / Abrams Upgrade Program	P-5a, P-21	A		1,879 / 14,652.881	90 / 1,145.837	90 / 1,247.340	34 / 697.883	- / -	34 / 697.883
P-40	Total Gross/Weapon System Cost				1,879 / 14,652.881	90 / 1,145.837	90 / 1,247.340	34 / 697.883	- / -	34 / 697.883

*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 2024 Base Procurement dollars in the amount of \$697.883 million supports the following:

The upgrade and assembly of 34 Abrams tank variants to the M1A2 System Enhancement Package (SEP)v3 configuration enhances tank survivability, the automotive power pack, computer systems and night vision capabilities. The M1A2 System Enhancement Package (SEP)v3 also incorporates turret and hull armor upgrades for enhanced crew survivability. This upgrade is part of the Engineering Change Proposal (ECP) that addresses capability gaps in the tank fleet. The program upgrades will begin at Anniston Army Depot (ANAD) where Vehicle and Component Refurbishment will occur, and finish by General Dynamics Land Systems (GDLS) at the Joint Systems Manufacturing Center (JSMC) in Lima, OH. It also includes the procurement of Government Furnished Equipment, Common Remote Operated Weapon Station Low Profile (CROWS-LP), Gun Tubes, Mine Plows and Rollers, and Transmissions. The program funds the recurring costs required for the daily operation and support of the production plants to include utilities and Energy Savings Performance Contract (ESPC) payments, manufacturing studies, security, inspections, and emergency minor repairs.

The M1A2 SEpv4 is a "lethality" system improvement that provides the warfighter with significantly greater operational capabilities including the key technology 3rd Generation Forward Looking Infrared (3GEN FLIR). Advanced Procurement supports the procurement of initial SEpv4 3GEN FLIR components. The M1A2 SEpv4 is also equipped with new color cameras to the gunner/commander primary sights, an improved laser range finder, integration of a laser warning receiver system, improved lethality via Fire Control System (FCS) digital communication with a new Advanced Multi-Purpose round, improved accuracy via integration of a meteorological sensor, and improved onboard diagnostics.

Funding supports the following efforts for Field Modification: procurement and installation of field modification hardware, System Technical Support (STS) efforts, continued support of the Total Integrated Engine Revitalization (TIGER) and Transmission programs; Direct Support Electrical System Test Sets (DSESTS); upgrades to Training Aids, Devices, Simulators and Simulations (TADSS); logistics support to facilitate the installation of the improved Active Protection System, which is critical to counter anti-armor capabilities in near-peer adversaries.

The Abrams calculation for unit cost is the sum of Upgrade Vehicle Production (Basic Vehicle), Upgrade Government Furnished Equipment (GFE), Upgrade Vehicle and Component Refurbishment, and Upgrade Total Package Fielding (TPF) divided by vehicle quantity (see Exhibit P-5). The Average Procurement Unit Cost (APUC) for FY 2024 is \$16.999 million for quantity of 34 Tanks M1A2 SEpv3 using the M1A1 Situational Awareness (SA) variant as the seed for all 34 tank upgrades.

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.

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Exhibit P-5, Cost Analysis: PB 2024 Army											Date: March 2023						
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20						P-1 Line Item Number / Title: 6500GA0750 / Abrams Upgrade Program					Item Number / Title [DODIC]: GA0750 / Abrams Upgrade Program						
ID Code (A=Service Ready, B=Not Service Ready) : A											MDAP/MAIS Code:						
Resource Summary				Prior Years		FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Procurement Quantity (<i>Units in Each</i>)				1,879		90		90		34		-		34			
Gross/Weapon System Cost (<i>\$ in Millions</i>)				14,652.881		1,145.837		1,247.340		697.883		-		697.883			
Less PY Advance Procurement (<i>\$ in Millions</i>)				2,064.494		-		-		-		-		-			
Net Procurement (P-1) (<i>\$ in Millions</i>)				12,588.387		1,145.837		1,247.340		697.883		-		697.883			
Plus CY Advance Procurement (<i>\$ in Millions</i>)				2,064.494		-		-		102.440		-		102.440			
Total Obligation Authority (<i>\$ in Millions</i>)				14,652.881		1,145.837		1,247.340		800.323		-		800.323			
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																	
Initial Spares (<i>\$ in Millions</i>)				-		-		-		-		-		-		-	
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)				7,798.234		12,731.522		13,859.333		20,525.971		-		20,525.971			

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Recurring Cost																		
Basic Vehicle ^(†)	4,053.385	2,204	8,933.661	4,412.622	90	397.136	5,055.378	90	454.984	6,570.765	34	223.406	-	-	-	6,570.765	34	223.406
Government Furnished Equipment (GFE)	-	-	2,522.314	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Upgrade Government Furnished Equipment (GFE)	-	-	-	-	-	276.507	-	-	337.919	-	-	277.972	-	-	-	-	-	277.972
Pre-Modification Vehicle Teardown/ Refurb	-	-	682.084	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Upgrade Vehicle and Component Refurbishment	-	-	-	-	-	145.804	-	-	124.858	-	-	51.346	-	-	-	-	-	51.346
TPF/New Equipment Training	-	-	329.113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Package Fielding (TPF)	-	-	-	-	-	34.105	-	-	41.412	-	-	25.249	-	-	-	-	-	25.249
Field Modifications	-	-	-	-	-	246.556	-	-	245.927	-	-	68.789	-	-	-	-	-	68.789
Government Support	-	-	1,233.261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government Program Support	-	-	-	-	-	45.729	-	-	42.240	-	-	51.121	-	-	-	-	-	51.121
Transmissions	-	-	288.344	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Forward Looking Infrared (FLIR)	-	-	476.848	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2024 Army												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20						P-1 Line Item Number / Title: 6500GA0750 / Abrams Upgrade Program						Item Number / Title [DODIC]: GA0750 / Abrams Upgrade Program					
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Industrial Base Mitigation Support/ Facilities Optimization and Maintenance	-	-	185.463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	14,651.088	-	-	1,145.837	-	-	1,247.340	-	-	697.883	-	-	-	-	-	697.883
Non Recurring Cost																		
FY 2019 NDAA SEC 825 MDAP Cost Overrun	-	-	1.793	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	1.793	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	14,652.881	-	-	1,145.837	-	-	1,247.340	-	-	697.883	-	-	-	-	-	697.883
Gross/Weapon System Cost	7,798.234	1,879	14,652.881	12,731.522	90	1,145.837	13,859.333	90	1,247.340	20,525.971	34	697.883	-	-	-	20,525.971	34	697.883

Remarks:

- Abrams calculation for unit cost is the sum of Upgrade Vehicle Production (Basic Vehicle), Upgrade Government Furnished Equipment (GFE), Upgrade Vehicle and Component Refurbishment, and Upgrade Total Package Fielding (TPF) divided by vehicle quantity.
- The Average Procurement Unit Cost (APUC) for FY 2024 is \$16.999 million for a quantity of 34 M1A2 SEPv3 tanks using the M1A1 SA as the seed vehicle for all 34 tank upgrades.
- The Average Procurement Unit Cost (APUC) for FY 2023 is \$9.816 million for a quantity of 90 M1A2 SEPv3 tanks using 44 M1A2 SEPv2s and 46 M1A1s as the seed vehicles for the tank upgrades.
- The Average Procurement Unit Cost (APUC) for FY 2022 is \$9.484 million for a quantity of 90 M1A2 SEPv3 tanks using the M1A2 SEPv2 as the seed vehicle for all 90 tank upgrades.
- Beginning in FY 2022 the Transmissions and Forward Looking Infra-Red (FLIR) technology costs were rolled into the Government Furnished Equipment (GFE) line.
- Beginning in FY 2022 Abrams Industrial Base Mitigation Support/Facilities Optimization Maintenance cost element funding was realigned to the 3270GC0050 / Production Base Support funding line to provide greater transparency of those efforts.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	222.350	-	222.350
ANG	Quantity	90	90	34	-	34
	Total Obligation Authority	1,145.837	1,247.340	577.973	-	577.973
Total:	Quantity	90	90	34	-	34

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Exhibit P-5, Cost Analysis: PB 2024 Army			Date: March 2023			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20		P-1 Line Item Number / Title: 6500GA0750 / Abrams Upgrade Program		Item Number / Title [DODIC]: GA0750 / Abrams Upgrade Program		
ID Code (A=Service Ready, B=Not Service Ready) : A			MDAP/MAIS Code:			
Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Secondary Distribution	Total Obligation Authority	1,145.837	1,247.340	800.323	-	800.323

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

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 6500GA0750 / Abrams Upgrade Program	Item Number / Title [DODIC]: GA0750 / Abrams Upgrade Program
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Basic Vehicle ^(†)		2022	GDLS / Sterling Heights, MI	SS / FPIF	TACOM-Warren	Mar 2022	Sep 2023	90	4,412.622	N		
Basic Vehicle ^(†)		2023	GDLS / Sterling Heights, MI	SS / FPIF	TACOM-Warren	Mar 2023	Sep 2024	90	5,055.378	N		
Basic Vehicle ^(†)		2024	GDLS / Sterling Heights, MI	SS / FPIF	TACOM-Warren	Mar 2024	Sep 2025	34	6,570.765	N		

^(†) indicates the presence of a P-21

Remarks:
GDLS-Prime Contractor, Sterling Heights, MI
Manufactured at the Joint Systems Manufacturing Center (JSMC), Lima, OH

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Exhibit P-21, Production Schedule: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20 **P-1 Line Item Number / Title:** 6500GA0750 / Abrams Upgrade Program **Item Number / Title [DODIC]:** GA0750 / Abrams Upgrade Program

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2024													Fiscal Year 2025													BALANCE		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024													Calendar Year 2025													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Basic Vehicle																																	
Prior Years Deliveries: 2204																																	
1		2022	ARMY	90	12	78	15	15	6	6	6	6	6	6	6	3	3															0	
1		2023	ARMY	90	0	90	-	-	-	-	-	-	-	-	-	-	-	8	8	8	7	7	8	8	8	7	7	7	7		0		
1		2024	ARMY	34	0	34																								3	31		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20 **P-1 Line Item Number / Title:** 6500GA0750 / Abrams Upgrade Program **Item Number / Title [DODIC]:** GA0750 / Abrams Upgrade Program

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2026												Fiscal Year 2027												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2025	BAL DUE AS OF 1 OCT	Calendar Year 2026												Calendar Year 2027												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Basic Vehicle																															
Prior Years Deliveries: 2204																															
1		2022	ARMY	90	90	0																							0		
1		2023	ARMY	90	90	0																							0		
1		2024	ARMY	34	3	31	3	3	3	3	3	3	3	3	3	2	2												0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2024 Army	Date: March 2023
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Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 6500GA0750 / Abrams Upgrade Program	Item Number / Title [DODIC]: GA0750 / Abrams Upgrade Program
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	GDLS - Sterling Heights, MI	1	12	35	0	14	18	32	0	5	18	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).

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles	P-1 Line Item Number / Title: 6500GA0750 / Abrams Upgrade Program
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Program Elements for Code B Items: N/A	Other Related Program Elements: 0203735A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,064.494	-	-	102.440	-	102.440	111.455	59.992	144.359	-	-	2,482.740
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,064.494	-	-	102.440	-	102.440	111.455	59.992	144.359	-	-	2,482.740
Total Obligation Authority (<i>\$ in Millions</i>)	2,064.494	-	-	102.440	-	102.440	111.455	59.992	144.359	-	-	2,482.740

Description:

GA0750C / Abrams Upgrade Advance Procurement (CY) is a new start within the Abrams Upgrade Program Budget Line in FY 2024

This funding line provides Advance Procurement (AP) for the initial production of the Abrams M1A2 Systems Enhancement Program (SEP) version 4 (M1A2 SEpv4) tank.

This funding line is directly aligned and supports the Army Armored Brigade Combat Team (ABCT) Modernization priority. Specifically, the Army will modernize the Abrams tank fleet through a series of deliberate incremental Engineering Change Proposals (ECPs). The M1A2 SEpv4 tank is a follow-on to the M1A2 SEpv3 tank and is focused on lethality improvements to integrate higher functioning sensors, modules, and fire control. The 3rd Generation Forward Looking Infrared (3rd GEN FLIR) capability is the key technology improvement of the M1A2 SEpv4 tank providing significantly greater advanced target identification and the subsequent ability to engage threat targets at much greater distances and with greater accuracy. The initial procurement will include 45 each Third Generation Forward Looking Infrared (3rd GEN FLIR) Gunner's Primary Sight (GPS) and Commander's Primary Sight (CPS) and other long lead items.

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:** 6500GA0750 / Abrams Upgrade Program

Program Elements for Code B Items: N/A **Other Related Program Elements:** 0203735A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule				Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Exhibit Type	Title*	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-10	GA0750 / Abrams Upgrade Program			1,879 / 2,064.494	90 / -	90 / -	34 / 102.440	- / -	34 / 102.440
P-40	Total Gross/Weapon System Cost			1,879 / 2,064.494	90 / -	90 / -	34 / 102.440	- / -	34 / 102.440

*Title represents the P-10 Title for Advance Procurement.

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

Justification:
 FY 2024 Advance Procurement dollars in the amount of \$102.440 million will support the initial procurement of 45 each Third Generation Forward Looking Infrared (3rd GEN FLIR) Gunner's Primary Sight (GPS) and Commander's Primary Sight (CPS) sensors and other long lead items. The initial production of the GPS and CPS sensors are currently anticipated to have a lead time of approximately 24 months. The early procurement of the GPS and CPS sensors will provide a significant production efficiency by ensuring the critical technology insertions are available for the Prime Contractor (General Dynamics Land Systems (GDLS)) located at the Joint Systems Manufacturing Center (JSMC), Lima Ohio to meet the M1A2 SEPv4 production schedule and prevent a production break. This program supports the Army Armored Brigade Combat Team (ABCT) Modernization strategy and is consistent with the Army Regionally Aligned Readiness and Modernization Model (ReARMM).

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): PB 2024 Army					Date: March 2023		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 6500GA0750 / Abrams Upgrade Program			P-5 Number / Title: GA0750 / Abrams Upgrade Program	
First System (2024) Award Date: November 2023		First System (2024) Completion Date: November 2025			Interval Between Systems: 24 Months		
Abrams Upgrade Program		Production Leadtime <i>(Months)</i>	Prior Years <i>(Each)</i>	FY 2022 <i>(Each)</i>	FY 2023 <i>(Each)</i>	FY 2024 <i>(Each)</i>	
Quantity			1,879	90	90	34	
Cost Elements		When Required <i>(Months)</i>	Prior Years <i>(\$ M)</i>	FY 2022 <i>(\$ M)</i>	FY 2023 <i>(\$ M)</i>	FY 2024 <i>(\$ M)</i>	
CFE							
Commander's and Gunner's Primary Sight		24	2,064.494	-	-	102.440	
<i>Total: CFE</i>			<i>2,064.494</i>	<i>-</i>	<i>-</i>	<i>102.440</i>	
Total Advance Procurement/Obligation Authority			2,064.494	-	-	102.440	

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 6500GA0750 / Abrams Upgrade Program	P-5 Number / Title: GA0750 / Abrams Upgrade Program
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Cost Elements	QPA <i>(Each)</i>	FY 2024					Total Cost Request <i>(\$ M)</i>
		Production Leadtime <i>(Months)</i>	Unit Cost <i>(\$ K)</i>	Contract Forecast Date	2024 Qty <i>(Each)</i>	For FY	
Commander's and Gunner's Primary Sight	45					2025	102.440
<i>Total: CFE</i>							<i>102.440</i>
Total Advance Procurement/Obligation Authority							102.440

Description:
 This funding line provides Advance Procurement (AP) for the initial production of the Abrams M1A2 Systems Enhancement Program (SEP) version 4 (M1A2 SEPv4) tank.

This funding line is directly aligned and supports the Army's Armored Brigade Combat Team (ABCT) Modernization priority. Specifically, the Army will modernize the Abrams tank fleet through a series of deliberate incremental Engineering Change Proposals (ECPs). The M1A2 SEPv4 tank is a follow-on to the M1A2 SEPv3 tank and is focused on lethality improvements to integrate higher functioning sensors, modules, and fire control. The 3rd Generation Forward Looking Infrared (3rd GEN FLIR) capability is the key technology improvement of the M1A2 SEPv4 tank providing significantly greater advanced target identification and the subsequent ability to engage threat targets at much greater distances and with greater accuracy. The initial procurement will include 45 each Third Generation Forward Looking Infrared (3rd GEN FLIR) Gunner's Primary Sight (GPS) and Commander's Primary Sight (CPS) and other long lead items.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:**
 6652GM1900 / VEHICLE PROTECTION SYSTEMS (VPS)

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	449	-	-	-	-	-	-	-	-	-	449
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	75.286	-	-	-	-	-	-	-	-	-	75.286
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	75.286	-	-	-	-	-	-	-	-	-	75.286
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	75.286	-	-	-	-	-	-	-	-	-	75.286

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	167.675	-	-	-	-	-	-	-	-	-	167.675

Description:

The Vehicle Protection Suite (VPS) will evaluate, mature, and integrate onto multiple combat platforms, combinations of active, reactive, and passive survivability capabilities. These capabilities will leverage both Horizontal Technology Integration (HTI) principles and the Army's Modular Active Protection Controller and Framework to develop tailored vehicle survivability sets that will mitigate existing protection gaps, allow for future technology insertion to meet evolving threats, and minimize the impact to the current capabilities hosted on Army ground system platforms.

(GM1911) - VPS Base Kit with Laser Warning Receiver

The VPS Base Kit with Laser Warning Receiver (LWR) Program was designated as a Program of Record in August 2018. The Laser Warning Receiver (LWR) will detect enemy military laser aided threats and provide rapid warning of threat type and signal direction to the Modular Active Protection Controller (MAC) via the Modular Active Protection Framework (MAF) Laser Warning Receiver (LWR). It will be able to detect the broad array of laser aided threats that ground combat vehicles will face in a near peer environment Laser Range Finders (LRF), Laser Target Designators (LTD), and Laser Beam Rider Air to Ground Munitions (ATGMs). The system will alert the crew to which of the three categories of threats are targeting the system and allow for the crew to respond based on that threat. Threat timelines are critical to the response of the vehicle crew and the ability to counter the threat. The Laser Warning Receiver will provide early warning to laser aided threat elements. The VPS Base Kit with Laser Warning Receiver is currently planned to be implemented as an Engineering Change Proposal to multiple ground combat vehicle platforms.

(GM1912) - Signature Management

The Signature Management (SIGMAN) paint program was designated as a program of record in August 2018. Signature Management reduces the infrared signature of ground combat vehicles. This capability will reduce the probability of enemy detection from classified ranges and wave bands. Signature Management is designed to be integrated with no changes to the combat vehicles' baseline paint. This program is intended to be used on all combat vehicles, with future expansion to other U.S. Army vehicle systems. Signature Management is the Vehicle Protection System baseline layer for the signature management architecture. Future Vehicle Protection technologies may be layered in coordination with this program.

Passive Protection

The Passive Protection portfolio includes protection against top attack/aerial threats and medium caliber/kinetic energy threats. The Passive Protection program includes multiple implementation strategies depending on the specific capability within the passive protection portfolio.

Expedited Active Protection System (ExAPS)

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles		P-1 Line Item Number / Title: 6652GM1900 / VEHICLE PROTECTION SYSTEMS (VPS)

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

The ExAPS program is executed under the Directed Requirement (DR) to Procure and Rapidly Field Non-Developmental Item (NDI) Active Protection Systems in support of European Deterrence Initiative requirements approved 12 October 2016. The DR included integration on Abrams, Bradley and Stryker. This program executes the platform integration, system/on-platform test activities, logistic product development, and Urgent Material Release (UMR) documentation in support of rapid fielding activities. The ExAPS program pre-positions Non-Developmental Item (NDI) systems specifically selected for each platform around the world in support of current and future engagement requirements.

Combat vehicles face numerous detection systems that operate in the infrared wavelengths. These detection systems can be vehicle mounted, carried by individuals or satellite mounted. The Signature Management - Paint program focuses on vehicle mounted detection systems that operate in specific wavelengths. Future capability may be added to the Signature Management program to address other wavelength gaps, or managed through other future camouflage and concealment programs. The Signature Management program is currently planned to be implemented as a production cut-in and/or retrofit to the enduring fleet onto multiple ground combat vehicle platforms.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	449	-	-	-	-	-	-	-	-
	Total Obligation Authority	75.286	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	449	-	-	-	-	-	-	-	-
	Total Obligation Authority	75.286	-	-	-	-	-	-	-	-

Justification:
There is no FY 2024 budget request for this funding line.

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.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 0418GN0003 / PERSONAL DEFENSE WEAPON (ROLL)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	100	-	100	2,191	2,148	1,602	564	-	6,605
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	7.000	-	0.510	-	0.510	4.983	4.981	3.919	1.765	-	23.158
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	7.000	-	0.510	-	0.510	4.983	4.981	3.919	1.765	-	23.158
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	7.000	-	0.510	-	0.510	4.983	4.981	3.919	1.765	-	23.158

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	5.100	-	5.100	2.274	2.319	2.446	3.129	-	3.506

Description:

BLI 0418GN0003 / PERSONAL DEFENSE WEAPON (ROLL) is a new start in FY 2024.
SSN G00013 / LAUNCHED ELECTRODE STUN DEVICE is a new start within the PERSONAL DEFENSE WEAPON (ROLL) program in FY 2024

GN0003 / PERSONAL DEFENSE WEAPON (ROLL) is a New Start program in FY 2024.
G00013 / LAUNCHED ELECTRODE STUN DEVICE is a new start within the PERSONAL DEFENSE WEAPON (ROLL) Budget Line in FY 2024.

(G00013) - Launched Electronic Stun Device (LESD): The LESD is an intermediate force conducted energy weapon (CEW). Probes are fired from the attached cartridge and impact the targeted individuals clothing or body. The electric pulses generated by the CEW are conducted through the tethered probes and into the individual, thereby allowing the electromagnetic interference (EMI) effect to disable individuals at a distance. LESD allows for increased force protection and provides Military Police (MPs) with a viable escalation of force capability. This item is Code A, approved for service use.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army									
Quantity	-	-	100	-	100	2,191	2,148	1,602	564
Total Obligation Authority	7.000	-	0.510	-	0.510	4.983	4.981	3.919	1.765
Total:									
Secondary Distribution									
Quantity	-	-	100	-	100	2,191	2,148	1,602	564
Total Obligation Authority	7.000	-	0.510	-	0.510	4.983	4.981	3.919	1.765

Justification:
FY 2024 Base procurement dollars in the amount of \$0.510 million supports the procurement of 100 Launched Electronic Stun Devices (LESDs). Funding also supports Fielding and New Equipment Training (NET).

Notes:

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles		P-1 Line Item Number / Title: 0418GN0003 / PERSONAL DEFENSE WEAPON (ROLL)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>- In FY 2022, Line 118 Family of Non-Lethal Equipment (FNLE) within the Other Procurement, Army appropriation received a \$7.000 million "Program Increase - CEWs". An Internal Reprogramming was requested to realign the increase to the Procurement of Weapons and Tracked Combat Vehicles (WTCV), Army appropriation for proper execution and to meet congressional intent.</p> <p>- In FY 2023, Line 112 Family of Non-Lethal Equipment (FNLE) within the Other Procurement, Army appropriation received an additional \$3.000 million "Program Increase - CEWs" and a similar request to realign the increase is planned to realign the increase to WTCV within this new budget line.</p> <p>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.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 2472G13000 / M240 Medium Machine Gun (7.62mm)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0604601A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1,685	480	476	19	-	19	18	12	12	-	-	2,702
Gross/Weapon System Cost (<i>\$ in Millions</i>)	830.939	11.017	10.500	0.425	-	0.425	0.426	0.313	0.314	-	-	853.934
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	830.939	11.017	10.500	0.425	-	0.425	0.426	0.313	0.314	-	-	853.934
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	830.939	11.017	10.500	0.425	-	0.425	0.426	0.313	0.314	-	-	853.934

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	493.139	22.952	22.059	22.368	-	22.368	23.667	26.083	26.167	-	-	316.038

Description:

The M240 Medium Machine Gun (7.62mm) program supports the Army Modernization priorities (Build a More Lethal Force) through enhancement of Joint Lethality in contested environments by minimizing and eliminating erosion of close combat capability relative to peer competitors in complex terrain as outlined in the National Defense Strategy (NDS). The M240 series machine guns are available in different configurations for various applications. The M240B Machine Gun is a ground version of the original M240 Machine Gun, 7.62MM Medium Machine Gun class weapon, designed as a coaxial/pintle-mounted weapon for tanks and light armored vehicles. The M240B also includes: a flash suppressor, front sight, carrying handle, buttstock, pistol grip, bipod, heat shield and rear sight assembly. The M240B Machine Gun may also be tripod-mounted and used in conjunction with a traversing and elevating mechanism and mount pintle. The M240H is a variant of this same family of Machine Guns and is employed as the self defensive armament subsystem for the UH-60 BLACK HAWK and CH-47 Chinook Helicopters. The M240H uses the same receiver and barrel as the M240B but has a spade grip trigger assembly. It also has a unique mounting interface and pintle to properly interface with the helicopter platform. The lighter M240L replaces the M240B in Special Forces/Rangers, Light Infantry and Airborne units. The M240L significantly reduces the weight of the current M240B, by approximately 6 pounds, while maintaining the same level of reliability. The weight reduction is accomplished through the use of lightweight materials and innovative manufacturing techniques.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	432	476	16	-	16	15	10	10
	Total Obligation Authority	9.967	10.500	0.333	-	0.333	0.334	0.248	0.249
ANG	Quantity	39	-	3	-	3	3	2	2
	Total Obligation Authority	0.853	-	0.092	-	0.092	0.092	0.065	0.065
AR	Quantity	9	-	-	-	-	-	-	-
	Total Obligation Authority	0.197	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	480	476	19	-	19	18	12	12
	Total Obligation Authority	11.017	10.500	0.425	-	0.425	0.426	0.313	0.314

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles		P-1 Line Item Number / Title: 2472G13000 / M240 Medium Machine Gun (7.62mm)
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0604601A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
Justification: FY 2024 Base procurement dollars in the amount of \$0.425 million supports the purchase of 19 M240L Lightweight Medium Machine Guns. 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.		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 3736G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604601A
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Line Item MDAP/MAIS Code: 1D0

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	440	330	391	-	-	-	-	-	-	-	-	1,161
Gross/Weapon System Cost (<i>\$ in Millions</i>)	88.217	31.623	26.627	-	-	-	-	-	-	-	-	146.467
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	88.217	31.623	26.627	-	-	-	-	-	-	-	-	146.467
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	88.217	31.623	26.627	-	-	-	-	-	-	-	-	146.467

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	200.493	95.827	68.100	-	-	-	-	-	-	-	-	126.156

Description:

This program supports the Army Modernization priorities (Build a More Lethal Force) through enhancement of Soldier Lethality in contested environments. The Multi-Role Anti-Armor/Anti-Personnel Weapon System (MAAWS) or, M3/M3E1 Carl Gustaf MAAWS is a man-portable shoulder-fired, 84mm reusable recoilless rifle/launcher weapon system with an effective firing range of up to 1300 meters based on ammunition used. It can be fired by one man from the standing, kneeling, sitting or prone positions and supports full and sub caliber training systems. The M3/M3E1 MAAWS is capable of engaging, neutralizing and destroying lightly armored vehicles, soft skinned vehicles, personnel in the open or defilade, and field fortifications in both open urban and rural operational environments. The M3/M3E1 MAAWS is also capable of marking threat targets with smoke for supporting weapons, obscuring threat weapons and illuminating threat targets.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	307	279	-	-	-	-	-	-
	Total Obligation Authority	29.413	19.000	-	-	-	-	-	-
ANG	Quantity	23	112	-	-	-	-	-	-
	Total Obligation Authority	2.210	7.627	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	330	391	-	-	-	-	-	-
	Total Obligation Authority	31.623	26.627	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 3736G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604601A
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Line Item MDAP/MAIS Code: 1D0

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM	P-5a	A		440 / 88.217	330 / 31.623	391 / 26.627	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				440 / 88.217	330 / 31.623	391 / 26.627	- / -	- / -	- / -

*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:
 There is no FY 2024 budget request for this funding line.

The M3/M3E1 is a man-portable shoulder-fired, 84mm reusable recoilless rifle/launcher weapon system capable of engaging, neutralizing and destroying lightly armored vehicles, soft skinned vehicles, personnel in the open or defilade, and field fortifications in both open urban and rural operational environments.

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.

Army Acquisition Objective (AAO): 2,460

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 3736G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM	Item Number / Title [DODIC]: G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary		Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)		440	330	391	-	-	-
Gross/Weapon System Cost (\$ in Millions)		88.217	31.623	26.627	-	-	-
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)		88.217	31.623	26.627	-	-	-
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)		88.217	31.623	26.627	-	-	-

(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)	200.493	95.827	68.100	-	-	-

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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																		
M3A1 ^(†)	30.743	1,089	33.479	28.567	330	9.427	29.832	315	9.397	-	-	-	-	-	-	-	-	-
Fire Control ^(††)	29.774	1,089	32.424	28.632	330	9.449	29.206	315	9.200	-	-	-	-	-	-	-	-	-
Sub Caliber Adapter ^(††)	5.406	584	3.157	6.674	949	6.334	6.809	460	3.132	-	-	-	-	-	-	-	-	-
Comtac Headset w/ Push talk Assembly ^(††)	1.152	600	0.691	1.164	844	0.982	1.186	630	0.747	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	69.751	-	-	26.192	-	-	22.476	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
M3 OCO	33.705	88	2.966	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M3 OCO Fire Control	32.307	88	2.843	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M3 OCO Sub Caliber Adapter	6.500	60	0.390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	6.199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	75.950	-	-	26.192	-	-	22.476	-	-	-	-	-	-	-	-	-
Logistics Cost																		
Recurring Cost																		
M3A1 Transport	-	-	0.310	-	-	0.375	-	-	0.248	-	-	-	-	-	-	-	-	-
Integrated Logistical Support-Crane	-	-	-	-	-	0.800	-	-	0.746	-	-	-	-	-	-	-	-	-

LI 3736G13101 - MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL
WEA...
Army

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 3736G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM	Item Number / Title [DODIC]: G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
FCS13 Contractor Fielding Support - Vendor	-	-	0.748	-	-	1.489	-	-	0.634	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1.058	-	-	2.664	-	-	1.628	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
M3 OCO Transport	-	-	0.114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	0.114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Logistics Cost</i>	-	-	1.172	-	-	2.664	-	-	1.628	-	-	-	-	-	-	-	-	-
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	0.678	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	0.678	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	3.020	-	-	1.193	-	-	0.764	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	3.020	-	-	1.193	-	-	0.764	-	-	-	-	-	-	-	-	-
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	1.361	-	-	0.700	-	-	0.859	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	1.361	-	-	0.700	-	-	0.859	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Government Management	-	-	6.036	-	-	0.874	-	-	0.900	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Program Management Cost</i>	-	-	6.036	-	-	0.874	-	-	0.900	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	200.493	440	88.217	95.827	330	31.623	68.100	391	26.627	-	-	-	-	-	-	-	-	-

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	307	279	-	-	-
	Total Obligation Authority	29.413	19.000	-	-	-
ANG	Quantity	23	112	-	-	-

LI 3736G13101 - MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL
WEA...
Army

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 3736G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM	Item Number / Title [DODIC]: G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM

ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:				
Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
	Total Obligation Authority	2.210	7.627	-	-	-
Total:	Quantity	330	391	-	-	-
Secondary Distribution	Total Obligation Authority	31.623	26.627	-	-	-

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

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army							Date: March 2023				
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10			P-1 Line Item Number / Title: 3736G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM				Item Number / Title [DODIC]: G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
M3A1		2022	Saab Dynamics AB / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Nov 2021	May 2022	330	28.567	Y		
M3A1		2023	Saab Dynamics AB / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Nov 2022	May 2023	315	29.832	Y		
Fire Control		2022	Aimpoint / Sweden	MIPR	DLA Troop Support	Dec 2021	Apr 2022	330	28.632	Y		
Fire Control		2023	Aimpoint / Sweden	MIPR	DLA Troop Support	Dec 2022	Apr 2023	315	29.206	Y		
Sub Caliber Adapter		2022	Saab Dynamics AB / Sweden	SS / IDIQ	Naval Surface Warfare Center, Crane, IN	Dec 2021	Apr 2022	949	6.674	Y		
Sub Caliber Adapter		2023	Saab Dynamics AB / Sweden	SS / IDIQ	Naval Surface Warfare Center, Crane, IN	Dec 2022	Apr 2023	460	6.809	Y		
Comtac Headset w/ Push talk Assembly		2022	Atlantic Signal, LLC / Topeka, Kansas	MIPR	DLA Troop Support	Dec 2021	Apr 2022	844	1.164	Y		
Comtac Headset w/ Push talk Assembly		2023	Atlantic Signal, LLC / Topeka, Kansas	MIPR	DLA Troop Support	Dec 2022	Apr 2023	630	1.186	Y		

Remarks:
P-21 is not required, as all hardware items procured are Commercial Off the Shelf (COTS) or Commercial Off the Shelf/Non-Developmental Items (COTS/NDI).

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 5000GB2000 / Machine Gun, Cal .50 M2 Roll
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	424	-	424	30	29	27	-	-	510
Gross/Weapon System Cost (<i>\$ in Millions</i>)	417.874	-	-	3.420	-	3.420	0.452	0.453	0.453	-	-	422.652
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	417.874	-	-	3.420	-	3.420	0.452	0.453	0.453	-	-	422.652
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	417.874	-	-	3.420	-	3.420	0.452	0.453	0.453	-	-	422.652

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	8.066	-	8.066	15.067	15.621	16.778	-	-	828.729

Description:

BLI 5000GB2000 / Machine Gun, Cal .50 M2 Roll is a new start in FY 2024.

GB2000 / Machine Gun, Cal .50 M2 Roll is a new start in FY 2024.

The M2A1 .50 Caliber Machine Gun is an automatic, belt-fed, recoil-operated, and air-cooled crew-served weapon. It mounts on the M205 tripod and on most vehicles, and serves as an anti-personnel and anti-aircraft weapon. It is highly effective against light armored vehicles, low-and slow-flying aircraft, and small boats. The M2A1 provides automatic weapon suppressive fire for offensive and defensive purposes. It is capable of single-shot and automatic fire. The M2A1 provides enhancements to allow the Soldier to quickly change barrels without the need to reset the headspace and timing while also reducing the visible muzzle flash.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	-	270	-	270	13	10	11	-
	Total Obligation Authority	-	-	2.061	-	2.061	0.187	0.179	0.188	-
ANG	Quantity	-	-	98	-	98	11	13	10	-
	Total Obligation Authority	-	-	0.859	-	0.859	0.175	0.184	0.175	-
AR	Quantity	-	-	56	-	56	6	6	6	-
	Total Obligation Authority	-	-	0.500	-	0.500	0.090	0.090	0.090	-
Total:	Quantity	-	-	424	-	424	30	29	27	-
Secondary Distribution	Total Obligation Authority	-	-	3.420	-	3.420	0.452	0.453	0.453	-

Justification:

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles		P-1 Line Item Number / Title: 5000GB2000 / Machine Gun, Cal .50 M2 Roll
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		
<p>FY 2024 Base procurement dollars in the amount of \$3.399 million supports the conversion of approximately 1,600 legacy M2 and M48 machine guns to the modern M2A1 model for fielding. Variability in the condition, type and availability of serviceable weapons to be converted will drive the unit cost of each conversion. Conversion work is performed at Anniston Army Depot (Anniston, AL).</p> <p>GB2000 / Machine Gun, Cal .50 M2 Roll is a new start in FY 2024.</p> <p>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.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 6580G02200 / Mortar Systems
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	371	204	6	6	-	6	6	10	9	9	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	488.711	33.240	8.516	8.013	-	8.013	8.549	14.563	14.218	14.229	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	488.711	33.240	8.516	8.013	-	8.013	8.549	14.563	14.218	14.229	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	488.711	33.240	8.516	8.013	-	8.013	8.549	14.563	14.218	14.229	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	1,317.280	162.941	1,419.333	1,335.500	-	1,335.500	1,424.833	1,456.300	1,579.778	1,581.000	Continuing	Continuing

Description:

Mortar Systems includes the production of 60mm Lightweight M224A1, 81mm Lightweight M252A1, and 120mm M120A1/M121 mortar weapon systems; including subsystems components M326 Mortar Stowage Kit (MSK), M1101 and M1102 trailers and associated supporting subsystems, Basic Issue Items (BI), Additional Authorized List (AAL) items and tool kits. These mortar weapon systems and associated equipment and subsystem components support the mounted and dismounted vehicle platforms in the Armor Brigade Combat Teams (ABCTs), Stryker Brigade Combat Teams (SBCTs), and Infantry Brigade Combat Teams (IBCTs). The Dismounted 120mm (M120A1) system's Mortar Stowage Kit (MSK) subsystems assembly enables rapid emplacement and displacement of the M120A1 from the M1101 and M1102 Trailers or IBCT platforms. The 60mm, 81mm and 120mm mortar weapon systems and components fulfill current and future Army Acquisition Objective (AAO) gaps, Operational Need Statement (ONS) requirements, increase of Army reorganization and Army stand up unit requirements. The M120A1 will also be mounted or integrated on the Army's current and future vehicle and trailer systems.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	204	6	6	-	6	10	9	9
	Total Obligation Authority	33.240	8.516	8.013	-	8.013	14.563	14.218	14.229
Total: Secondary Distribution	Quantity	204	6	6	-	6	10	9	9
	Total Obligation Authority	33.240	8.516	8.013	-	8.013	14.563	14.218	14.229

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles

P-1 Line Item Number / Title:
6580G02200 / Mortar Systems

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	G02202 / Mtr Wpn Sys	P-5a	A		371 / 488.711	204 / 33.240	6 / 8.516	6 / 8.013	- / -	6 / 8.013
P-40	Total Gross/Weapon System Cost				371 / 488.711	204 / 33.240	6 / 8.516	6 / 8.013	- / -	6 / 8.013

*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 2024 funding total includes \$4.427 million for Base and \$3.586 million for Enduring Costs in the Base Budget.

FY 2024 Base procurement dollars in the amount of \$4.427 million will support the procurement of three (3) each M121 120mm mortar weapon systems, M298 barrels, subsystems, and support equipment such as mortar weapon system kits, Modified Work Order (MWO) kits and Basic Issue Item (BI) kits, Engineering Change Proposals (ECPs), Technical Data Packages (TDPs), technical issues and obsolescence related to weapon system safety, and the procurement of mortar weapon system kits for special force requirements and modernized mounted and dismounted platforms in the Armor Brigade Combat Teams (ABCTs) to support Armor Multi Purpose Vehicle (AMPV) requirements. Funding is essential to fill shortages of 120mm mortar weapon systems resulting from Army reorganization of ABCTs from two Battalions per Brigade to three Battalions per Brigade and increase in Army Acquisition Objective (AAO) for new stand up units.

FY 2024 Base procurement dollars in the amount of \$3.586 million procures three (3) each M121 120mm mortar weapon systems in support of the European Deterrence Initiative (EDI).

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.

Note: FY 2024 quantity totals six (6) each full systems.

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Exhibit P-5, Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 6580G02200 / Mortar Systems	Item Number / Title [DODIC]: G02202 / Mtr Wpn Sys
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)	371	204	6	6	-	6
Gross/Weapon System Cost (\$ in Millions)	488.711	33.240	8.516	8.013	-	8.013
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	488.711	33.240	8.516	8.013	-	8.013
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	488.711	33.240	8.516	8.013	-	8.013

(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 Thousands)	1,317.280	162.941	1,419.333	1,335.500	-	1,335.500

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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																		
120mm (M121) Mortar System ^(†)	124.730	18	2.245	150.000	36	5.400	150.000	6	0.900	150.000	6	0.900	-	-	-	150.000	6	0.900
120mm (M120A1) Mortar System ^(†)	-	-	-	260.000	42	10.920	-	-	-	-	-	-	-	-	-	-	-	-
120mm Cannon Tubes ^(†)	33.675	306	10.304	60.011	124	7.441	60.600	28	1.697	60.600	10	0.606	-	-	-	60.600	10	0.606
120mm Mortar System	59.709	344	20.540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M326 Mortar Stowage Kit	102.712	114	11.709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120mm Mortar Component	18.371	306	5.621	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Light Tactical Trailer	10.000	38	0.380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81mm Mortar System	16.371	326	5.337	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81mm Cannon Tubes	28.950	326	9.438	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81mm Mortar Component	47.528	326	15.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>81.069</i>	<i>-</i>	<i>-</i>	<i>23.761</i>	<i>-</i>	<i>-</i>	<i>2.597</i>	<i>-</i>	<i>-</i>	<i>1.506</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>1.506</i>
<i>Subtotal: Hardware Cost</i>	<i>-</i>	<i>-</i>	<i>81.069</i>	<i>-</i>	<i>-</i>	<i>23.761</i>	<i>-</i>	<i>-</i>	<i>2.597</i>	<i>-</i>	<i>-</i>	<i>1.506</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>1.506</i>
Logistics Cost																		
Recurring Cost																		
Government ILS	-	-	2.423	-	-	0.555	-	-	0.560	-	-	0.565	-	-	-	-	-	0.565

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Exhibit P-5, Cost Analysis: PB 2024 Army												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10						P-1 Line Item Number / Title: 6580G02200 / Mortar Systems						Item Number / Title [DODIC]: G02202 / Mtr Wpn Sys					
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Recurring Cost</i>	-	-	2.423	-	-	0.555	-	-	0.560	-	-	0.565	-	-	-	-	-	0.565
<i>Subtotal: Logistics Cost</i>	-	-	2.423	-	-	0.555	-	-	0.560	-	-	0.565	-	-	-	-	-	0.565
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	3.274	-	-	0.924	-	-	0.400	-	-	0.400	-	-	-	-	-	0.400
First Article Test	-	-	3.342	-	-	1.077	-	-	0.154	-	-	0.165	-	-	-	-	-	0.165
<i>Subtotal: Support - Acceptance Testing Cost</i>	-	-	6.616	-	-	2.001	-	-	0.554	-	-	0.565	-	-	-	-	-	0.565
Support - Fielding Cost																		
Fielding	-	-	3.723	-	-	1.133	-	-	1.136	-	-	1.150	-	-	-	-	-	1.150
<i>Subtotal: Support - Fielding Cost</i>	-	-	3.723	-	-	1.133	-	-	1.136	-	-	1.150	-	-	-	-	-	1.150
Support - Production Engineering Cost																		
Production Engineering	-	-	387.674	-	-	3.906	-	-	2.635	-	-	3.127	-	-	-	-	-	3.127
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	387.674	-	-	3.906	-	-	2.635	-	-	3.127	-	-	-	-	-	3.127
Support - Staging and Transportation Cost																		
Staging and Transportation	-	-	4.680	-	-	1.159	-	-	0.305	-	-	0.350	-	-	-	-	-	0.350
<i>Subtotal: Support - Staging and Transportation Cost</i>	-	-	4.680	-	-	1.159	-	-	0.305	-	-	0.350	-	-	-	-	-	0.350
Support - Training Cost																		
Services	-	-	2.525	-	-	0.725	-	-	0.730	-	-	0.750	-	-	-	-	-	0.750
<i>Subtotal: Support - Training Cost</i>	-	-	2.525	-	-	0.725	-	-	0.730	-	-	0.750	-	-	-	-	-	0.750
Gross/Weapon System Cost	1,317.280	371	488.711	162.941	204	33.240	1,419.333	6	8.516	1,335.500	6	8.013	-	-	-	1,335.500	6	8.013

Remarks:
Note: FY 2024 quantity totals six (6) each full systems.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	204	6	6	-	6
	Total Obligation Authority	33.240	8.516	8.013	-	8.013
Total:	Quantity	204	6	6	-	6
Secondary Distribution	Total Obligation Authority	33.240	8.516	8.013	-	8.013

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 6580G02200 / Mortar Systems	Item Number / Title [DODIC]: G02202 / Mtr Wpn Sys
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 6580G02200 / Mortar Systems	Item Number / Title [DODIC]: G02202 / Mtr Wpn Sys
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
120mm (M121) Mortar System		2022	EFW Inc / Fort Worth, TX	C / FFP	Picatinny Arsenal, NJ	Jun 2022	Oct 2024	36	150.000	Y		
120mm (M121) Mortar System		2023	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Apr 2023	Aug 2025	6	150.000	Y		
120mm (M121) Mortar System		2024	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2024	Jul 2026	6	150.000	Y		
120mm (M120A1) Mortar System		2022	EFW Inc / Fort Worth, TX	C / FFP	Picatinny Arsenal, NJ	Jun 2022	Oct 2024	42	260.000	Y		
120mm Cannon Tubes		2022	EFW Inc / Fort Worth, TX	C / FFP	Picatinny Arsenal, NJ	Jun 2022	Oct 2024	124	60.011	Y		
120mm Cannon Tubes		2023	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Apr 2023	Aug 2023	28	60.600	Y		
120mm Cannon Tubes		2024	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2024	Jul 2026	10	60.600	Y		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 6659G08100 / LOCATION & AZIMUTH DETERMINATION SYSTEM (LADS)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	126	-	-	-	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	48.301	3.174	-	3.174	2.538	-	-	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	48.301	3.174	-	3.174	2.538	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	48.301	3.174	-	3.174	2.538	-	-	-	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	383.341	-	-	-	-	-	-	-	Continuing	Continuing

Description:

The Location and Azimuth Determining System (LADS) provides a lightweight, portable, and deployable common inertial survey capability for field artillery cannon, rocket, missile, radar and mortar platforms that is not dependent on the Global Positioning System (GPS). LADS provides accurate location, azimuth and direction for all field artillery systems while being reliable, intuitive to use, and more cost effective than the predecessor system while operating in GPS denied and degraded environments. The LADS system is operable by multiple military occupational specialties (MOS) and can be integrated into multiple vehicles. LADS is a replacement for the legacy Improved Position and Azimuth Determining System - GPS (IPADS-G) which is no longer supportable and facing multiple obsolescence issues.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	126	-	-	-	-	-	-	-
	Total Obligation Authority	-	48.301	3.174	-	3.174	2.538	-	-	-
Total: Secondary Distribution	Quantity	-	126	-	-	-	-	-	-	-
	Total Obligation Authority	-	48.301	3.174	-	3.174	2.538	-	-	-

Justification:

FY 2024 Base procurement funds in the amount of \$3.174 million supports the training package development, production engineering support, and fielding costs for Location and Azimuth Determining Systems (LADS). The Location and Azimuth Determining System (LADS) provides a lightweight, portable, and deployable common inertial survey capability for field artillery cannon, rocket, missile, radar and mortar platforms that is not dependent on the Global Positioning System (GPS). LADS provides accurate location, azimuth and direction for all field artillery systems while being reliable, intuitive to use, and more cost effective than the predecessor system while operating in GPS denied and degraded environments.

Net funding decrease of \$45.127 million from FY 2023 to FY 2024 is the result of completing hardware procurement.

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.

LI 6659G08100 - LOCATION & AZIMUTH DETERMINATION SYSTEM ...
Army

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 6659G08100 / LOCATION & AZIMUTH DETERMINATION SYSTEM (LADS)	
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		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 8181G01501 / XM320 Grenade Launcher Module (GLM)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	272.265	13.934	11.703	14.143	-	14.143	17.711	17.873	17.894	17.869	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	272.265	13.934	11.703	14.143	-	14.143	17.711	17.873	17.894	17.869	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	272.265	13.934	11.703	14.143	-	14.143	17.711	17.873	17.894	17.869	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	118.789	-	-	-	-	-	-	-	-	-	Continuing	Continuing

Description:

This program supports the Army Modernization priorities (Build a More Lethal Force) through enhancement of Joint Lethality in contested environments by minimizing and eliminating erosion of close combat capability relative to peer competitors in complex terrain as outlined in the National Defense Strategy (NDS). The M320 Grenade Launcher Module (GLM) is a 40mm low-velocity grenade launching weapon system that is a direct replacement to all M203 series of grenade launchers on M16 Rifles and M4 Carbines. The M320 Grenade Launcher Module (GLM) is a modular system that mounts under the barrel of the rifle or carbine. This weapon can also be used in the stand-alone configuration. The M320 Grenade Launcher Module (GLM) has an integrated leaf sight and some improved safety features. This weapon also has a side-loading unrestricted breech that permits the firing of longer 40mm low-velocity projectiles (NATO standard and non-standard). The M320 Grenade Launcher Module (GLM) is more reliable and safer because of the use of a more modern double-action trigger/firing system. The new pistol grip design eliminates the need to use the M4 magazine as a hand grip. The latest innovations in lightweight material composites improve durability. Procurement of hand-held Laser Range Finder (LRF) and Grenadier Sighting System (GSS) are delivered as system components, one each per system. M320 Grenade Launcher Modules (GLMs) will also be fitted with an additional system components, such as a leaf sight, barrel, improved butt stock, and a XM100 40mm fuze programmer, to support the High Explosive Air Burst (HEAB) and M433E1 capability to be delivered by the new 40mm Family of Ammunition (FOA).

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	-	-	-	-	-	-	-	-	-
	9.462	6.308	14.143	-	14.143	17.711	17.873	17.894	17.869
ANG	-	-	-	-	-	-	-	-	-
	4.318	5.215	-	-	-	-	-	-	-
AR	-	-	-	-	-	-	-	-	-
	0.154	0.180	-	-	-	-	-	-	-
Total: Secondary Distribution	-	-	-	-	-	-	-	-	-
	13.934	11.703	14.143	-	14.143	17.711	17.873	17.894	17.869

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 8181G01501 / XM320 Grenade Launcher Module (GLM)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	G01501 / XM320 Grenade Launcher Module (GLM)	P-5a	A		- / 272.265	- / 13.934	- / 11.703	- / 14.143	- / -	- / 14.143
P-40	Total Gross/Weapon System Cost				- / 272.265	- / 13.934	- / 11.703	- / 14.143	- / -	- / 14.143

*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 2024 Base procurement dollars in the amount of \$14.143 million supports M320 Grenade Launcher Module (GLM) system fielding efforts, procurement of Grenadier Sighting Systems (GSS), and the modification work order (MWO) for the GSS. The Grenadier Sighting Systems (GSS) provides the ability to engage targets during day or night and is capable of multiple ballistic solutions for different rounds, which can be selected by the user. The GSS also provides settings for the XM100 40mm Fuze Programmer which may be procured if available from Joint Program Executive Office (JPEO) Armaments and Ammunition after Milestone C. M320 GLM accessories / modifications may be procured to accommodate greater shock profiles associated with new ammunition if confirmed by JPEO Armaments and Ammunition.

In accordance with Section 1815 of the FY 2008 National Defense 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.

Grenadier Sighting System (GSS), a required component of M320 GLM, is in production and the Army Acquisition Objective (AAO) is the same as the M320's Grenade Launcher Army Acquisition Objective (AAO) of 56,319. The M320 Grenade Launcher (GLM) weapon AAO has been met.

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8181G01501 / XM320 Grenade Launcher Module (GLM)	Item Number / Title [DODIC]: G01501 / XM320 Grenade Launcher Module (GLM)

ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:					
Resource Summary				Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)				-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)				272.265	13.934	11.703	14.143	-	14.143
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)				272.265	13.934	11.703	14.143	-	14.143
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)				272.265	13.934	11.703	14.143	-	14.143
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)				118.789	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Recurring Cost																		
M320A1 Grenade Launcher (GL)	4.214	45,347	191.084	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laser Range Finder (LRF)	0.489	46,794	22.905	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tool Set/ASL	0.499	2,669	1.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arms Racks	1.064	3,448	3.667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RIA Program Management Spt	-	-	0.824	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Buttstock & Leaf sight	0.531	2,150	1.141	-	-	-	0.548	781	0.428	0.602	789	0.475	-	-	-	0.602	789	0.475
Grenadier Sighting System (GSS) ^(†)	1.900	2,150	4.085	1.900	1,523	2.894	1.900	3,881	7.374	2.422	3,947	9.558	-	-	-	2.422	3,947	9.558
<i>Subtotal: Recurring Cost</i>	-	-	225.039	-	-	2.894	-	-	7.802	-	-	10.033	-	-	-	-	-	10.033
Non Recurring Cost																		
XM320 GLM Supplemental	-	-	-	-	-	5.268	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	5.268	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	225.039	-	-	8.162	-	-	7.802	-	-	10.033	-	-	-	-	-	10.033
Hardware Cost																		
Recurring Cost																		

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Exhibit P-5, Cost Analysis: PB 2024 Army												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10						P-1 Line Item Number / Title: 8181G01501 / XM320 Grenade Launcher Module (GLM)						Item Number / Title [DODIC]: G01501 / XM320 Grenade Launcher Module (GLM)					
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
XM100 40mm Fuze Setter	-	-	-	0.841	1,916	1.611	0.851	1,222	1.040	0.950	1,224	1.163	-	-	-	0.950	1,224	1.163
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	1.611	-	-	1.040	-	-	1.163	-	-	-	-	-	1.163
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	1.611	-	-	1.040	-	-	1.163	-	-	-	-	-	1.163
Package Fielding Cost																		
Recurring Cost																		
Total Package Fielding (TPF)	-	-	4.640	-	-	0.864	-	-	0.175	-	-	0.182	-	-	-	-	-	0.182
<i>Subtotal: Recurring Cost</i>	-	-	4.640	-	-	0.864	-	-	0.175	-	-	0.182	-	-	-	-	-	0.182
<i>Subtotal: Package Fielding Cost</i>	-	-	4.640	-	-	0.864	-	-	0.175	-	-	0.182	-	-	-	-	-	0.182
Logistics Cost																		
Recurring Cost																		
Integrated Logistics Support (ILS)	-	-	2.271	-	-	0.285	-	-	0.443	-	-	0.460	-	-	-	-	-	0.460
New Equipment Training (NET)	-	-	0.366	-	-	0.395	-	-	0.139	-	-	0.145	-	-	-	-	-	0.145
<i>Subtotal: Recurring Cost</i>	-	-	2.637	-	-	0.680	-	-	0.582	-	-	0.605	-	-	-	-	-	0.605
<i>Subtotal: Logistics Cost</i>	-	-	2.637	-	-	0.680	-	-	0.582	-	-	0.605	-	-	-	-	-	0.605
Support - Acceptance Testing Cost																		
First Article Test	-	-	7.403	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Acceptance Testing Cost</i>	-	-	7.403	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Government Management	-	-	8.725	-	-	0.768	-	-	0.607	-	-	0.711	-	-	-	-	-	0.711
<i>Subtotal: Support - Program Management Cost</i>	-	-	8.725	-	-	0.768	-	-	0.607	-	-	0.711	-	-	-	-	-	0.711
Support - System Engineering Cost																		
System Engineering	-	-	17.942	-	-	1.749	-	-	1.497	-	-	1.447	-	-	-	-	-	1.447
<i>Subtotal: Support - System Engineering Cost</i>	-	-	17.942	-	-	1.749	-	-	1.497	-	-	1.447	-	-	-	-	-	1.447
Support - Training Cost																		
Equipment	-	-	5.903	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Training Cost</i>	-	-	5.903	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8181G01501 / XM320 Grenade Launcher Module (GLM)	Item Number / Title [DODIC]: G01501 / XM320 Grenade Launcher Module (GLM)
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Gross/Weapon System Cost	118.789	-	272.265	-	-	13.934	-	-	11.703	-	-	14.143	-	-	-	-	-	14.143

Remarks:
Ongoing contract negotiations may impact FY 2024 unit cost on the Grenadier Sighting System (GSS) due to increase material costs, inflation and supply change issues.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	9.462	6.308	14.143	-	14.143
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	4.318	5.215	-	-	-
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	0.154	0.180	-	-	-
Total:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	13.934	11.703	14.143	-	14.143

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

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army								Date: March 2023				
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10			P-1 Line Item Number / Title: 8181G01501 / XM320 Grenade Launcher Module (GLM)					Item Number / Title [DODIC]: G01501 / XM320 Grenade Launcher Module (GLM)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Grenadier Sighting System (GSS)		2022	Wilcox / Portsmouth, NH	C / FFP	ACC-Picatinny, Picatinny, NJ	Dec 2021	Dec 2021	1,523	1.900	Y		
Grenadier Sighting System (GSS)		2023	Wilcox / Portsmouth, NH	C / FFP	ACC-Picatinny, Picatinny, NJ	Dec 2022	Dec 2022	3,881	1.900	Y		
Grenadier Sighting System (GSS)		2024	Wilcox / Portsmouth, NH	C / FFP	ACC-Picatinny, Picatinny, NJ	Jun 2024	Sep 2024	3,947	2.422	Y		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 8190G01506 / Precision Sniper Rifle
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	817	443	231	165	-	165	223	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	14.642	9.505	6.436	5.248	-	5.248	6.049	6.109	6.115	6.121	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	14.642	9.505	6.436	5.248	-	5.248	6.049	6.109	6.115	6.121	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	14.642	9.505	6.436	5.248	-	5.248	6.049	6.109	6.115	6.121	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	17.922	21.456	27.861	31.806	-	31.806	27.126	-	-	-	Continuing	Continuing

Description:

The Precision Sniper Rifle (PSR) program supports the Army Modernization priorities (Build a More Lethal Force) through enhancement of Joint Lethality in contested environments by minimizing and eliminating erosion of close combat capability relative to peer competitors in complex terrain as outlined in the National Defense Strategy (NDS). On 31 March 2021, the U.S. Army awarded contract W15QKN-21-D-0028 to Barrett Firearms MFG, Inc. The contract is a 5-year Firm Fixed Price (FFP) Indefinite Delivery/Indefinite Quantity (IDIQ) contract for production and delivery of the MK22 Precision Sniper Rifle (Multi-role Adaptive Design (MRAD) commercial variant) to support an Army Acquisition Objective (AAO) of 2,800 systems. This program will become the primary sniper weapon system in all Army sniper teams. It is a Non-Developmental Item (NDI) that is a multi-caliber, bolt-action sniper rifle, which is effective against personnel and materiel targets at extreme ranges. The Precision Sniper Rifle (PSR) provides increased probability of hit over the current M2010 Enhanced Sniper Rifle (ESR) configuration at distances beyond twelve-hundred (1200) meters, which enhances the sniper role in supporting combat operations and improves sniper survivability. The Precision Sniper Rifle (PSR) provides extended effective range by three-hundred (300) meters over M2010 Enhanced Sniper Rifle (ESR) out to fifteen-hundred (1500) meters, which increases stand-off distances ensuring overmatch against enemy counter sniper engagements and increases sniper capabilities. The Precision Sniper Rifle (PSR) also replaces the anti-materiel M107 semi-automatic .50 caliber sniper rifle, offering improved accuracy in a lighter weight package. The Precision Sniper Rifle (PSR) includes a sound suppressor and direct view optic with fire control capabilities. This allows snipers, when supplemented with a clip-on image intensifier or thermal sensor system, to effectively engage enemy snipers, as well as crew served and indirect fire weapons virtually undetected in any light condition.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	383	93	99	-	99	95	-	-
	Total Obligation Authority	8.211	2.591	3.124	-	3.124	2.567	2.586	4.072
ANG	Quantity	60	138	64	-	64	128	-	-
	Total Obligation Authority	1.294	3.845	2.061	-	2.061	3.482	3.523	2.043
AR	Quantity	-	-	2	-	2	-	-	-
	Total Obligation Authority	-	-	0.063	-	0.063	-	-	-
Total:	Quantity	443	231	165	-	165	223	-	-

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 8190G01506 / Precision Sniper Rifle
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Secondary Distribution	Total Obligation Authority	9.505	6.436	5.248	-	5.248	6.049	6.109	6.115	6.121

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 8190G01506 / Precision Sniper Rifle
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	G01506 / Precision Sniper Rifle	P-5a	A		817 / 14.642	443 / 9.505	231 / 6.436	165 / 5.248	- / -	165 / 5.248
P-40	Total Gross/Weapon System Cost				817 / 14.642	443 / 9.505	231 / 6.436	165 / 5.248	- / -	165 / 5.248

*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 2024 Base procurement dollars in the amount of \$5.248 million support the Active Army through procurement of Precision Sniper Rifle (PSR) Systems to include but not limited to direct view optics with fire control capabilities, optical augmentation devices, suppressors, initial quantities of spare parts, and other components of end items / basic issue items to include but not limited to gage kits. The level of effort remains consistent FY 2022 - FY 2026 to support fielding and engineering support. Currently, the Army has placed four delivery orders for a total of 1,579 complete weapon systems (e.g. weapon and direct view optic). In addition, the Army has assumed management of another 833 Precision Sniper Rifle (PSR) weapons from the U.S. Army Special Operations Command (USASOC). These 833 weapons are without a direct view optic therefore, each require the optic be purchased and integrated with the weapon to complete the MK22 PSR system. The integration of the direct view optic will be performed at the Operator Level. The Army has procured 420 of the 833 optics required. The Army is planning to procure 619 complete weapon systems FY 2023 - FY 2026 and 692 individual direct view optics FY 2023-FY 2025 to meet the AAO. A quantity of 485 gage kits is required to support inspection & maintenance tasks. To date, a quantity of 358 of the 485 gage kits have been procured; however 100 of the 358 was procured by Special Operations Command (SOCOM). Precision Sniper Rifle (PSR) will become the primary anti-personnel Sniper Weapon System (SWS) in all Army Sniper Teams. It is a Non-Developmental Item (NDI) that is a multi-caliber, bolt-action sniper rifle, which is effective against personnel and materiel targets at extreme ranges. The Precision Sniper Rifle (PSR) provides increased probability of hit over the current M2010 Enhanced Sniper Rifle (ESR) configuration at distances up to twelve-hundred (1200) meters and increases range out to fifteen-hundred (1500), which enhances the sniper role in supporting combat operations and improves sniper survivability.

Army Acquisition Objective (AAO): 2,800

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.

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Exhibit P-5, Cost Analysis: PB 2024 Army											Date: March 2023						
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10				P-1 Line Item Number / Title: 8190G01506 / Precision Sniper Rifle							Item Number / Title [DODIC]: G01506 / Precision Sniper Rifle						
ID Code (A=Service Ready, B=Not Service Ready) : A						MDAP/MAIS Code:											
Resource Summary				Prior Years		FY 2022			FY 2023			FY 2024 Base		FY 2024 OCO		FY 2024 Total	
Procurement Quantity (Units in Each)				817		443			231			165		-		165	
Gross/Weapon System Cost (\$ in Millions)				14.642		9.505			6.436			5.248		-		5.248	
Less PY Advance Procurement (\$ in Millions)				-		-			-			-		-		-	
Net Procurement (P-1) (\$ in Millions)				14.642		9.505			6.436			5.248		-		5.248	
Plus CY Advance Procurement (\$ in Millions)				-		-			-			-		-		-	
Total Obligation Authority (\$ in Millions)				14.642		9.505			6.436			5.248		-		5.248	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																	
Initial Spares (\$ in Millions)				-		-			-			-		-		-	
Gross/Weapon System Unit Cost (\$ in Thousands)				17.922		21.456			27.861			31.806		-		31.806	

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Recurring Cost																		
Precision Sniper Rifle ^(f)	10.131	863	8.743	10.219	485	4.956	10.403	231	2.403	10.588	165	1.747	-	-	-	10.588	165	1.747
Program Management	-	-	0.300	-	-	0.332	-	-	0.616	-	-	0.418	-	-	-	-	-	0.418
Engineering Support	-	-	1.078	-	-	0.686	-	-	0.486	-	-	0.478	-	-	-	-	-	0.478
Integrated Logistics Support (ILS)	-	-	0.408	-	-	0.194	-	-	0.068	-	-	0.130	-	-	-	-	-	0.130
Total Package Fielding (TPF)	-	-	0.318	-	-	0.068	-	-	0.139	-	-	0.150	-	-	-	-	-	0.150
New Equipment Training (NET)	-	-	0.110	-	-	0.136	-	-	0.117	-	-	0.130	-	-	-	-	-	0.130
ASR Conversions	-	-	-	4.362	141	0.615	5.022	279	1.401	5.271	240	1.265	-	-	-	5.271	240	1.265
Gage Kit	-	-	-	1.870	100	0.187	2.167	54	0.117	2.280	50	0.114	-	-	-	2.280	50	0.114
Day Optical Sighting System	4.270	863	3.685	4.260	485	2.066	4.714	231	1.089	4.945	165	0.816	-	-	-	4.945	165	0.816
<i>Subtotal: Recurring Cost</i>	-	-	14.642	-	-	9.240	-	-	6.436	-	-	5.248	-	-	-	-	-	5.248
Non Recurring Cost																		
Supplemental	-	-	-	-	-	0.265	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	0.265	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	14.642	-	-	9.505	-	-	6.436	-	-	5.248	-	-	-	-	-	5.248
Gross/Weapon System Cost	17.922	817	14.642	21.456	443	9.505	27.861	231	6.436	31.806	165	5.248	-	-	-	31.806	165	5.248

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8190G01506 / Precision Sniper Rifle	Item Number / Title [DODIC]: G01506 / Precision Sniper Rifle

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Remarks:
No P-21 form is required for the Precision Sniper Rifle (PSR), as it is a Non-Developmental Item (NDI) Commercial Off-The-Shelf (COTS) solution. Weapon System Unit Cost (U/C) reflects all system components to include the rifle scope, suppressor, optical augmentation device and all other Components Of the End Item (COEI), Basic Issue Items (BI).

FY 2022 - 2024 procurement quantities include upgrades to previously fielded Special Operations Command (SOCOM) MK 22s in to the Precision Sniper Rifles for U.S. Army Special Operation Command (USASOC) units included in the Army Acquisition Objective (AAO).

Based on actual execution of the program, P-40 Prior Years quantities should reflect 863 and the FY 2022 quantity should reflect 485 Precision Sniper Rifles and will be updated prior to the FY 2025 budget submission.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	383	93	99	-	99
	Total Obligation Authority	8.211	2.591	3.124	-	3.124
ANG	Quantity	60	138	64	-	64
	Total Obligation Authority	1.294	3.845	2.061	-	2.061
AR	Quantity	-	-	2	-	2
	Total Obligation Authority	-	-	0.063	-	0.063
Total:	Quantity	443	231	165	-	165
Secondary Distribution	Total Obligation Authority	9.505	6.436	5.248	-	5.248

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

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8190G01506 / Precision Sniper Rifle	Item Number / Title [DODIC]: G01506 / Precision Sniper Rifle
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Precision Sniper Rifle		2022	Barrett Firearms / Christiana, TN	C / FFP	ACC-NJ Picatinny	Mar 2022	Sep 2022	485	10.219	N		
Precision Sniper Rifle		2023	Barrett Firearms / Christiana, TN	SS / FFP	ACC-NJ Picatinny	Jan 2023	Apr 2023	231	10.403	Y		
Precision Sniper Rifle		2024	Barrett Firearms / Christiana, TN	SS / FFP	ACC-NJ Picatinny	Mar 2024	Jul 2024	165	10.588	Y		

Remarks:
Some system sub-components (e.g. Direct View Optics and Gage Kits) may be procured through the Defense Logistics Agency (DLA) Tailored Logistics Support contract where practical and cost effective

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 8201G13501 / Carbine
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	40,136	699	-	-	-	-	-	-	-	-	-	40,835
Gross/Weapon System Cost (<i>\$ in Millions</i>)	282.338	7.226	-	0.571	-	0.571	0.570	0.340	0.340	-	-	291.385
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	282.338	7.226	-	0.571	-	0.571	0.570	0.340	0.340	-	-	291.385
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	282.338	7.226	-	0.571	-	0.571	0.570	0.340	0.340	-	-	291.385

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	7.035	10.338	-	-	-	-	-	-	-	-	-	7.136

Description:

The Carbine program supports the National Defense Strategy (NDS) of "Build a More Lethal Force" through enhancement of Joint Lethality in contested environments by minimizing and eliminating erosion of close combat capability relative to peer competitors in complex terrain.

This funding line is used to procure M4A1 Carbines for the Army and 30 round Enhanced Performance Magazine (EPM). The M4A1 Carbines are 5.56mm, gas operated, air-cooled weapons designed for lightness, speed, mobility and firepower. The M4A1 Carbine is a more compact weapon than the M16 rifle series since it uses a shorter barrel and collapsible stock. When compared to the M4 Carbine, the M4A1 Carbine has a (safe/semi-automatic/full automatic) trigger group, with a heavier barrel thickness to support increased sustained rates of fire, and an ambidextrous fire control selector. The M4A1 Carbine also includes a back-up iron sight and the adapter rail system to attach accessories and components.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	699	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.226	-	0.049	-	0.049	0.048	0.040	0.040	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	0.261	-	0.261	0.131	0.045	0.045	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	0.261	-	0.261	0.391	0.255	0.255	-
Total:	Quantity	699	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	7.226	-	0.571	-	0.571	0.570	0.340	0.340	-

Justification:

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles		P-1 Line Item Number / Title: 8201G13501 / Carbine
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		
<p>FY 2024 Base procurement dollars in the amount of \$0.571 million supports continuous manufacturing and production process improvements leading to increased durability and maintainability of the weapon system.</p> <p>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.</p> <p>M4A1's Army Acquisition Objective (AAO): 845,563</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0604601A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	3,983	9,380	16,186	33,473	-	33,473	43,667	26,272	26,756	24,573	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	35.822	97.087	166.623	292.850	-	292.850	397.082	251.392	256.722	236.775	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	35.822	97.087	166.623	292.850	-	292.850	397.082	251.392	256.722	236.775	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	35.822	97.087	166.623	292.850	-	292.850	397.082	251.392	256.722	236.775	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	8.994	10.350	10.294	8.749	-	8.749	9.093	9.569	9.595	9.636	Continuing	Continuing

Description:

This funding line is directly aligned to the Army Soldier Lethality Modernization Priority.

This program also supports the National Defense Strategy (NDS) of "Build a More Lethal Force" through enhancement of Joint Lethality in contested environments by means of elimination and/or minimization of close combat capability erosion; specifically, relative to peer competitors, in complex terrain.

Next Generation Squad Weapons (NGSW) is a family of products that includes the M7 Rifle and M250 Automatic Rifle that integrate with the M157 Fire Control and common 6.8mm ammunition. The M7 Rifle and M250 Automatic Rifle are the planned replacements for select weapons system for individual soldiers, squads, and/or platoons, capable of defeating protected and unprotected threats. The M7 Rifle and M250 Automatic Rifle ensure increased lethality against a broad spectrum of targets beyond current/legacy weapon capabilities; increased range, accuracy, and probability of hit; reduced engagement time; suppressed flash/sound signature; and improved controllability and mobility.

The M157 Fire Control is an advanced individual fire control device that supports the M7 Rifle, M250 Automatic Rifle and other individual squad weapon systems. The M157 Fire Control increases the probability of hit and decreases engagement time through a variable-powered direct view optic with integrated range finder, ballistic calculator, and digital display capable of providing an adjusted aim point. The M157 Fire Control utilizes open architecture to deliver to an initial augmented core capability followed by increasing increments of capability over time as technology matures and evolves.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	9,380	9,390	21,619	-	21,619	29,358	9,783	8,498	7,325
	Total Obligation Authority	97.087	93.781	191.555	-	191.555	265.470	105.974	115.889	108.530
ANG	Quantity	-	6,796	11,854	-	11,854	14,309	16,489	18,258	17,248
	Total Obligation Authority	-	72.842	101.295	-	101.295	131.612	145.418	140.833	128.245
Total:	Quantity	9,380	16,186	33,473	-	33,473	43,667	26,272	26,756	24,573
Secondary Distribution	Total Obligation Authority	97.087	166.623	292.850	-	292.850	397.082	251.392	256.722	236.775

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles

P-1 Line Item Number / Title:
8205G14510 / Next Generation Squad Weapon

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604601A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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	G14511 / Next Generation Squad Weapon-Automatic Rifle	P-5a, P-21	A		- / -	399 / 3.630	711 / 10.161	1,419 / 18.665	- / -	1,419 / 18.665
P-5	G14512 / NEXT GENERATION SQUAD WEAPON-RIFLE	P-5a, P-21	A		- / -	3,725 / 20.862	8,336 / 45.075	17,122 / 87.426	- / -	17,122 / 87.426
P-5	G14513 / Next Generation Squad Weapon - Fire Control	P-5a, P-21	A		3,983 / 35.822	5,256 / 72.595	7,139 / 111.387	14,932 / 186.759	- / -	14,932 / 186.759
P-40	Total Gross/Weapon System Cost				3,983 / 35.822	9,380 / 97.087	16,186 / 166.623	33,473 / 292.850	- / -	33,473 / 292.850

*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 2024 Base procurement dollars in the amount of \$292.850 supports the following:

FY 2024 Base procurement dollars in the amount of \$18.665 million supports the procurement and fielding of 1,419 M250 Automatic Rifle (NGSW-AR) which is the planned replacement for the M249 Squad Automatic Weapon (SAW) within the Close Combat Force.

FY 2024 Base procurement dollars in the amount of \$87.426 million supports the procurement and fielding of 17,122 M7-Rifle (NGSW-R) which is the planned replacement for the M4A1 Carbine within the Close Combat Force.

The M7 Rifle and M250 Automatic Rifle ensure increased lethality against a broad spectrum of targets beyond current/legacy weapons capabilities; increased range, accuracy, and probability of hit; reduced engagement time; suppressed flash/sound signature; and improved controllability and mobility. The M7 Rifle, M250 Automatic Rifle, M157 Fire Control and 6.8mm Common Cartridge are fielded concurrently to provide a squad level capability improvement to maintain overmatch against near peer enemy threats.

FY 2024 Base procurement dollars in the amount of \$186.759 million supports the procurement and fielding of 14,932 M157 Fire Control systems. The M157 Fire Control system will have both close quarter and extended range capabilities and is integrated with the M7 Rifle and the M250 Automatic Rifle. The M157 Fire Control, M250 Auto Rifle and 6.8mm Common Cartridge are fielded concurrently to provide a squad level capability improvement to maintain overmatch against near peer enemy threats.

This funding line is directly aligned to the Army Soldier Lethality Modernization Priority.

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.

Army Acquisition Objectives (AAOs):

M7 Rifle (NGSW-R): 111,428

M250 Automatic Rifle (NGSW-AR): 13,334

M157 Fire Control (NGSW-FC): 124,749

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Exhibit P-5, Cost Analysis: PB 2024 Army													Date: March 2023						
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10						P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon						Item Number / Title [DODIC]: G14511 / Next Generation Squad Weapon-Automatic Rifle							
ID Code (A=Service Ready, B=Not Service Ready) : A									MDAP/MAIS Code:										
Resource Summary				Prior Years		FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total	
Procurement Quantity (Units in Each)				-		399			711			1,419			-			1,419	
Gross/Weapon System Cost (\$ in Millions)				-		3.630			10.161			18.665			-			18.665	
Less PY Advance Procurement (\$ in Millions)				-		-			-			-			-			-	
Net Procurement (P-1) (\$ in Millions)				-		3.630			10.161			18.665			-			18.665	
Plus CY Advance Procurement (\$ in Millions)				-		-			-			-			-			-	
Total Obligation Authority (\$ in Millions)				-		3.630			10.161			18.665			-			18.665	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																			
Initial Spares (\$ in Millions)				-		-			-			-			-			-	
Gross/Weapon System Unit Cost (\$ in Thousands)				-		9.098			14.291			13.154			-			13.154	
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)	
Flyaway Cost																			
Recurring Cost																			
Transportation	-	-	-	-	-	-	-	-	0.015	-	-	0.020	-	-	-	-	-	0.020	
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	0.015	-	-	0.020	-	-	-	-	-	0.020	
Non Recurring Cost																			
NGSW First Article Test	-	-	-	-	-	0.338	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	0.338	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	0.338	-	-	0.015	-	-	0.020	-	-	-	-	-	0.020	
Hardware Cost																			
Recurring Cost																			
Next Generation Squad Weapon - Automatic Rifle ^(†)	-	-	-	10.869	251	2.728	11.935	711	8.486	11.337	1,419	16.087	-	-	-	11.337	1,419	16.087	
Initial Spares	-	-	-	-	-	-	-	-	-	-	-	0.858	-	-	-	-	-	0.858	
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	2.728	-	-	8.486	-	-	16.945	-	-	-	-	-	16.945	
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	2.728	-	-	8.486	-	-	16.945	-	-	-	-	-	16.945	
Package Fielding Cost																			
Recurring Cost																			
Total Package Fielding	-	-	-	-	-	-	-	-	0.336	-	-	0.270	-	-	-	-	-	0.270	
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	0.336	-	-	0.270	-	-	-	-	-	0.270	

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Exhibit P-5, Cost Analysis: PB 2024 Army												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10						P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon						Item Number / Title [DODIC]: G14511 / Next Generation Squad Weapon-Automatic Rifle					
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Package Fielding Cost</i>	-	-	-	-	-	-	-	-	0.336	-	-	0.270	-	-	-	-	-	0.270
Logistics Cost																		
Recurring Cost																		
Integrated Logistic Support	-	-	-	-	-	0.144	-	-	0.063	-	-	0.150	-	-	-	-	-	0.150
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	0.144	-	-	0.063	-	-	0.150	-	-	-	-	-	0.150
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	0.144	-	-	0.063	-	-	0.150	-	-	-	-	-	0.150
Support - Data Cost																		
Technical Publications	-	-	-	-	-	-	-	-	0.248	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Data Cost</i>	-	-	-	-	-	-	-	-	0.248	-	-	-	-	-	-	-	-	-
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	-	-	-	0.063	-	-	0.248	-	-	-	-	-	0.248
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	-	-	-	-	-	-	0.063	-	-	0.248	-	-	-	-	-	0.248
Support - Program Management Cost																		
Government Management	-	-	-	-	-	0.170	-	-	0.428	-	-	0.432	-	-	-	-	-	0.432
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	0.170	-	-	0.428	-	-	0.432	-	-	-	-	-	0.432
Support - System Engineering Cost																		
System Engineering	-	-	-	-	-	0.250	-	-	0.522	-	-	0.600	-	-	-	-	-	0.600
<i>Subtotal: Support - System Engineering Cost</i>	-	-	-	-	-	0.250	-	-	0.522	-	-	0.600	-	-	-	-	-	0.600
Gross/Weapon System Cost	-	-	-	9.098	399	3.630	14.291	711	10.161	13.154	1,419	18.665	-	-	-	13.154	1,419	18.665

Remarks:
 Based on actual execution of the program FY 2022 and FY 2023 quantities will be updated prior to the FY 2025 budget submission.

 Unit costs are firm fixed price contract for all years and ordering periods and are procured in different quantity ranges and ordering periods.

 FY 2024 funding increases ramp production capacity to support Army's planned fielding schedule.

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon	Item Number / Title [DODIC]: G14511 / Next Generation Squad Weapon-Automatic Rifle

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

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	399	401	768	-	768
	Total Obligation Authority	3.630	5.888	12.209	-	12.209
ANG	Quantity	-	310	651	-	651
	Total Obligation Authority	-	4.273	6.456	-	6.456
Total: Secondary Distribution	Quantity	399	711	1,419	-	1,419
	Total Obligation Authority	3.630	10.161	18.665	-	18.665

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army							Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10			P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon				Item Number / Title [DODIC]: G14511 / Next Generation Squad Weapon-Automatic Rifle					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Next Generation Squad Weapon - Automatic Rifle ^(†)		2022	SIG Sauer Inc / Newington NH 03801-6801	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Dec 2022	Oct 2023	251	10.869	N		Jul 2021
Next Generation Squad Weapon - Automatic Rifle ^(†)		2023	SIG Sauer Inc / Newington NH 03801-6801	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Aug 2023	Feb 2024	711	11.935	N		
Next Generation Squad Weapon - Automatic Rifle ^(†)		2024	SIG Sauer Inc / Newington NH 03801-6801	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Jan 2024	Aug 2024	1,419	11.337	N		

^(†) indicates the presence of a P-21

Remarks:

Based on actual execution of the program FY 2022 and FY 2023 quantities will be updated prior to the FY 2025 budget submission.

Unit costs are firm fixed price contract for all years and ordering periods and are procured in different quantity ranges and ordering periods.

FY 2024 funding increases ramp production capacity to support Army's planned fielding schedule.

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Exhibit P-21, Production Schedule: PB 2024 Army															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10										P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon										Item Number / Title [DODIC]: G14511 / Next Generation Squad Weapon-Automatic Rifle									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023														Fiscal Year 2024														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023														Calendar Year 2024														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
Next Generation Squad Weapon - Automatic Rifle																																			
1	2022	ARMY		251	0	251			A	-	-	-	-	-	-	-	-	-	60	60	60	60	11							0					
1	2023	ARMY		711	0	711													A	-	-	-	-							0					
1	2024	ARMY		1,419	0	1,419																	A	-	-	-	-	-	99	120	1,200				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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Exhibit P-21, Production Schedule: PB 2024 Army															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10										P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon										Item Number / Title [DODIC]: G14511 / Next Generation Squad Weapon-Automatic Rifle									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2025												Fiscal Year 2026												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	Calendar Year 2025												Calendar Year 2026												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Next Generation Squad Weapon - Automatic Rifle																															
1		2022	ARMY	251	251	0																							0		
1		2023	ARMY	711	711	0																							0		
1		2024	ARMY	1,419	219	1,200	120	120	120	120	120	120	120	120	120														0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2024 Army							Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10				P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon				Item Number / Title [DODIC]: G14511 / Next Generation Squad Weapon-Automatic Rifle				
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	SIG Sauer Inc - Newington NH 03801-6801	20	120	300	4	2	6	8	1	2	6	8

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

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

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon	Item Number / Title [DODIC]: G14512 / NEXT GENERATION SQUAD WEAPON-RIFLE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)	-	3,725	8,336	17,122	-	17,122
Gross/Weapon System Cost (\$ in Millions)	-	20.862	45.075	87.426	-	87.426
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	20.862	45.075	87.426	-	87.426
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	20.862	45.075	87.426	-	87.426

(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)	-	5.601	5.407	5.106	-	5.106

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Recurring Cost																		
Transportation	-	-	-	-	-	-	-	-	0.050	-	-	0.100	-	-	-	-	-	0.100
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	<i>0.050</i>	-	-	<i>0.100</i>	-	-	-	-	-	<i>0.100</i>
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	<i>0.050</i>	-	-	<i>0.100</i>	-	-	-	-	-	<i>0.100</i>
Hardware Cost																		
Recurring Cost																		
Next Generation Squad Weapon - Rifle (NGSW-R) ⁽¹⁾	-	-	-	5.140	2,501	12.855	4.648	8,336	38.748	4.407	17,122	75.456	-	-	-	4.407	17,122	75.456
Initial Spares	-	-	-	-	-	-	-	-	2.906	-	-	5.659	-	-	-	-	-	5.659
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	<i>12.855</i>	-	-	<i>41.654</i>	-	-	<i>81.115</i>	-	-	-	-	-	<i>81.115</i>
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	<i>12.855</i>	-	-	<i>41.654</i>	-	-	<i>81.115</i>	-	-	-	-	-	<i>81.115</i>
Package Fielding Cost																		
Recurring Cost																		
Total Fielding Package	-	-	-	-	-	0.655	-	-	0.128	-	-	0.984	-	-	-	-	-	0.984
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	<i>0.655</i>	-	-	<i>0.128</i>	-	-	<i>0.984</i>	-	-	-	-	-	<i>0.984</i>
<i>Subtotal: Package Fielding Cost</i>	-	-	-	-	-	<i>0.655</i>	-	-	<i>0.128</i>	-	-	<i>0.984</i>	-	-	-	-	-	<i>0.984</i>
Logistics Cost																		
Recurring Cost																		

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon	Item Number / Title [DODIC]: G14512 / NEXT GENERATION SQUAD WEAPON-RIFLE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Integrated Logistic Support	-	-	-	-	-	0.600	-	-	0.336	-	-	0.490	-	-	-	-	-	0.490
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	0.600	-	-	0.336	-	-	0.490	-	-	-	-	-	0.490
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	0.600	-	-	0.336	-	-	0.490	-	-	-	-	-	0.490
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	0.500	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Acceptance Testing Cost</i>	-	-	-	-	-	0.500	-	-	-	-	-	-	-	-	-	-	-	-
Support - Data Cost																		
Technical Publications	-	-	-	-	-	0.500	-	-	0.271	-	-	0.500	-	-	-	-	-	0.500
<i>Subtotal: Support - Data Cost</i>	-	-	-	-	-	0.500	-	-	0.271	-	-	0.500	-	-	-	-	-	0.500
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	-	-	-	0.460	-	-	-	-	-	0.700	-	-	-	-	-	0.700
<i>Subtotal: Support - Engineering Change Proposals Cost</i>	-	-	-	-	-	0.460	-	-	-	-	-	0.700	-	-	-	-	-	0.700
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	0.514	-	-	0.126	-	-	0.493	-	-	-	-	-	0.493
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	-	-	-	0.514	-	-	0.126	-	-	0.493	-	-	-	-	-	0.493
Support - Program Management Cost																		
Government Management	-	-	-	-	-	1.278	-	-	1.272	-	-	1.760	-	-	-	-	-	1.760
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	1.278	-	-	1.272	-	-	1.760	-	-	-	-	-	1.760
Support - System Engineering Cost																		
System Engineering	-	-	-	-	-	3.500	-	-	1.240	-	-	1.283	-	-	-	-	-	1.283
<i>Subtotal: Support - System Engineering Cost</i>	-	-	-	-	-	3.500	-	-	1.240	-	-	1.283	-	-	-	-	-	1.283
Gross/Weapon System Cost	-	-	-	5.601	3,725	20.862	5.407	8,336	45.075	5.106	17,122	87.426	-	-	-	5.106	17,122	87.426

Remarks:
Based on actual execution of the program FY 2022 and FY 2023 quantities will be updated prior to the FY 2025 budget submission. Actual contract unit price in FY22 was \$4.243K for a quantity of 2,501 rifles.

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon	Item Number / Title [DODIC]: G14512 / NEXT GENERATION SQUAD WEAPON-RIFLE

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

Unit costs are firm fixed price contract for all years and ordering periods and are procured in different quantity ranges and ordering periods.

FY 2024 funding increases ramp production capacity to support Army's planned fielding schedule.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	3,725	5,251	11,223	-	11,223
	Total Obligation Authority	20.862	28.991	57.186	-	57.186
ANG	Quantity	-	3,085	5,899	-	5,899
	Total Obligation Authority	-	16.084	30.240	-	30.240
Total:	Quantity	3,725	8,336	17,122	-	17,122
Secondary Distribution	Total Obligation Authority	20.862	45.075	87.426	-	87.426

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

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army							Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10			P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon				Item Number / Title [DODIC]: G14512 / NEXT GENERATION SQUAD WEAPON-RIFLE					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Next Generation Squad Weapon - Rifle (NGSW-R) ^(†)		2022	SIG Sauer Inc / Newington NH 03801-6801	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Dec 2022	Oct 2023	2,501	5.140	N		Jul 2021
Next Generation Squad Weapon - Rifle (NGSW-R) ^(†)		2023	SIG Sauer Inc / Newington NH 03801-6801	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Aug 2023	Feb 2024	8,336	4.648	N		
Next Generation Squad Weapon - Rifle (NGSW-R) ^(†)		2024	SIG Sauer Inc / Newington NH 03801-6801	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Jan 2024	Aug 2024	17,122	4.407	N		

^(†) indicates the presence of a P-21

Remarks:
 Based on actual execution of the program FY 2022 and FY 2023 quantities will be updated prior to the FY 2025 budget submission. Actual contract unit price in FY 2022 was \$4.243K for a quantity of 2,501 rifles.
 Unit costs are firm fixed price contract for all years and ordering periods and are procured in different quantity ranges and ordering periods.
 FY 2024 funding increases ramp production capacity to support Army's planned fielding schedule.

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Exhibit P-21, Production Schedule: PB 2024 Army															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10										P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon										Item Number / Title [DODIC]: G14512 / NEXT GENERATION SQUAD WEAPON-RIFLE									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2023														Fiscal Year 2024														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023														Calendar Year 2024														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
Next Generation Squad Weapon - Rifle (NGSW-R)																																			
	1	2022	ARMY	2.501	.000	2.501			A -	-	-	-	-	-	-	-	-	.620	.620	.620	.620	.021									.000				
	1	2023	ARMY	8.336	.000	8.336												A -	-	-	-	-	1.380	1.390	1.390	1.390	1.390	1.390	.006	.000					
	1	2024	ARMY	17.122	.000	17.122																A -	-	-	-	-	-	-	1.426	1.426	14.270				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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Exhibit P-21, Production Schedule: PB 2024 Army															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10										P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon										Item Number / Title [DODIC]: G14512 / NEXT GENERATION SQUAD WEAPON-RIFLE									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2025												Fiscal Year 2026												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2024	BAL DUE AS OF 1 OCT	Calendar Year 2025												Calendar Year 2026												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Next Generation Squad Weapon - Rifle (NGSW-R)																															
	1	2022	ARMY	2.501	2.501	.000																								.000	
	1	2023	ARMY	8.336	8.336	.000																								.000	
	1	2024	ARMY	17.122	2.852	14.270	1.427	1.427	1.427	1.427	1.427	1.427	1.427	1.427	1.427															.000	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10		P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon
		Item Number / Title [DODIC]: G14512 / NEXT GENERATION SQUAD WEAPON-RIFLE

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	SIG Sauer Inc - Newington NH 03801-6801	250	1,427	5,000	4	2	6	8	1	2	6	8

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

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

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10		P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon
		Item Number / Title [DODIC]: G14513 / Next Generation Squad Weapon - Fire Control

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (<i>Units in Each</i>)	3,983	5,256	7,139	14,932	-	14,932
Gross/Weapon System Cost (<i>\$ in Millions</i>)	35.822	72.595	111.387	186.759	-	186.759
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	35.822	72.595	111.387	186.759	-	186.759
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	35.822	72.595	111.387	186.759	-	186.759

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	8.994	13.812	15.603	12.507	-	12.507

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

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Flyaway Cost																		
Recurring Cost																		
Transportation	-	-	-	-	-	-	-	-	0.060	-	-	0.350	-	-	-	-	-	0.350
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	0.060	-	-	0.350	-	-	-	-	-	0.350
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	0.060	-	-	0.350	-	-	-	-	-	0.350
Hardware Cost																		
Recurring Cost																		
M157 Fire Control Systems ^(†)	12.604	1,989	25.069	12.609	5,256	66.273	13.624	7,139	97.262	10.962	14,932	163.678	-	-	-	10.962	14,932	163.678
Initial Spares	-	-	-	-	-	-	-	-	1.945	-	-	3.274	-	-	-	-	-	3.274
Engineering Data	-	-	-	-	-	0.300	-	-	-	-	-	-	-	-	-	-	-	-
Technical Publications	-	-	-	-	-	0.370	-	-	-	-	-	0.804	-	-	-	-	-	0.804
Engineering Change Proposals	-	-	-	-	-	0.350	-	-	0.130	-	-	1.900	-	-	-	-	-	1.900
<i>Subtotal: Recurring Cost</i>	-	-	25.069	-	-	67.293	-	-	99.337	-	-	169.656	-	-	-	-	-	169.656
Non Recurring Cost																		
First Article Testing	-	-	10.619	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	10.619	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	35.688	-	-	67.293	-	-	99.337	-	-	169.656	-	-	-	-	-	169.656
Package Fielding Cost																		
Recurring Cost																		

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Exhibit P-5, Cost Analysis: PB 2024 Army												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10						P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon						Item Number / Title [DODIC]: G14513 / Next Generation Squad Weapon - Fire Control					
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 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 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)
Total Package Fielding	-	-	-	-	-	0.720	-	-	1.976	-	-	2.620	-	-	-	-	-	2.620
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	0.720	-	-	1.976	-	-	2.620	-	-	-	-	-	2.620
<i>Subtotal: Package Fielding Cost</i>	-	-	-	-	-	0.720	-	-	1.976	-	-	2.620	-	-	-	-	-	2.620
Logistics Cost																		
Recurring Cost																		
Integrated Logistics Support (ILS)	-	-	0.124	-	-	0.300	-	-	1.419	-	-	2.180	-	-	-	-	-	2.180
<i>Subtotal: Recurring Cost</i>	-	-	0.124	-	-	0.300	-	-	1.419	-	-	2.180	-	-	-	-	-	2.180
<i>Subtotal: Logistics Cost</i>	-	-	0.124	-	-	0.300	-	-	1.419	-	-	2.180	-	-	-	-	-	2.180
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	0.695	-	-	2.104	-	-	2.800	-	-	-	-	-	2.800
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	-	-	-	0.695	-	-	2.104	-	-	2.800	-	-	-	-	-	2.800
Support - Program Management Cost																		
Government Management	-	-	0.010	-	-	1.743	-	-	4.507	-	-	4.600	-	-	-	-	-	4.600
<i>Subtotal: Support - Program Management Cost</i>	-	-	0.010	-	-	1.743	-	-	4.507	-	-	4.600	-	-	-	-	-	4.600
Support - System Engineering Cost																		
System Engineering	-	-	-	-	-	1.474	-	-	1.984	-	-	2.053	-	-	-	-	-	2.053
<i>Subtotal: Support - System Engineering Cost</i>	-	-	-	-	-	1.474	-	-	1.984	-	-	2.053	-	-	-	-	-	2.053
Support - System Test and Evaluation Cost																		
Test and Evaluation Support	-	-	-	-	-	0.370	-	-	-	-	-	2.500	-	-	-	-	-	2.500
<i>Subtotal: Support - System Test and Evaluation Cost</i>	-	-	-	-	-	0.370	-	-	-	-	-	2.500	-	-	-	-	-	2.500
Gross/Weapon System Cost	8.994	3,983	35.822	13.812	5,256	72.595	15.603	7,139	111.387	12.507	14,932	186.759	-	-	-	12.507	14,932	186.759

Remarks:
Based on actual execution of the program FY 2022 and FY 2023 quantities will be updated prior to the FY 2025 budget submission. Actual quantity procured in FY22 is 5,719.

Unit costs are firm fixed price contract for all years and ordering periods and are procured in different quantity ranges and ordering periods.

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Exhibit P-5, Cost Analysis: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon	Item Number / Title [DODIC]: G14513 / Next Generation Squad Weapon - Fire Control

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

FY 2024 funding increases ramp production capacity to support Army's planned fielding schedule.

Long manufacturing production lead time due to electronic supply chain challenges.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Army	Quantity	5,256	3,738	9,628	-	9,628
	Total Obligation Authority	72.595	58.902	122.160	-	122.160
ANG	Quantity	-	3,401	5,304	-	5,304
	Total Obligation Authority	-	52.485	64.599	-	64.599
Total: Secondary Distribution	Quantity	5,256	7,139	14,932	-	14,932
	Total Obligation Authority	72.595	111.387	186.759	-	186.759

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

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Exhibit P-5a, Procurement History and Planning: PB 2024 Army							Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10			P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon				Item Number / Title [DODIC]: G14513 / Next Generation Squad Weapon - Fire Control					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
M157 Fire Control Systems		2021	Sheltered Wings DBA Vortex Optics / 1 Vortex Drive Barneveld, WI 53507	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Jan 2022	Dec 2022	1,989	12.604	N		Mar 2021
M157 Fire Control Systems ^(†)		2022	Sheltered Wings DBA Vortex Optics / 1 Vortex Drive Barneveld, WI 53507	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Jan 2022	Dec 2022	5,256	12.609	N		
M157 Fire Control Systems ^(†)		2023	Sheltered Wings DBA Vortex Optics / 1 Vortex Drive Barneveld, WI 53507	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Mar 2023	Mar 2025	7,139	13.624	N		Sep 2021
M157 Fire Control Systems ^(†)		2024	Sheltered Wings DBA Vortex Optics / 1 Vortex Drive Barneveld, WI 53507	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Jan 2024	Jan 2026	14,932	10.962	N		

^(†) indicates the presence of a P-21

Remarks:
Based on actual execution of the program FY 2022 and FY 2023 quantities will be updated prior to the FY 2025 budget submission. Actual quantity procured in FY 2022 is 5,719.

Unit costs are firm fixed price contract for all years and ordering periods and are procured in different quantity ranges and ordering periods.

FY 2024 funding increases ramp production capacity to support Army's planned fielding schedule.

Long manufacturing production lead time due to electronic supply chain challenges.

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Exhibit P-21, Production Schedule: PB 2024 Army															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10										P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon										Item Number / Title [DODIC]: G14513 / Next Generation Squad Weapon - Fire Control									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2024														Fiscal Year 2025														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 3	BAL D U E A S O F 1 O C T	Calendar Year 2024														Calendar Year 2025														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
M157 Fire Control Systems																																			
	1	2022	ARMY	5.256	4.380	.876	.438	.438																					.000						
	1	2023	ARMY	7.139	.000	7.139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.300	.400	.500	.595	.595	.595	.595	3.559
	1	2024	ARMY	14.932	.000	14.932				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.932		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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Exhibit P-21, Production Schedule: PB 2024 Army															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10										P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon										Item Number / Title [DODIC]: G14513 / Next Generation Squad Weapon - Fire Control									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2026												Fiscal Year 2027												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 5	BAL D U E A S O F 1 O C T	Calendar Year 2026												Calendar Year 2027												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
M157 Fire Control Systems																															
	1	2022	ARMY	5.256	5.256	.000																							.000		
	1	2023	ARMY	7.139	3.580	3.559	.595	.741	.741	.741	.741																		.000		
	1	2024	ARMY	14.932	.000	14.932	-	-	-	1.245	1.245	1.245	1.245	1.245	1.245	1.245	1.245	1.245	1.245	1.245	1.245	1.237							.000		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2024 Army							Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10				P-1 Line Item Number / Title: 8205G14510 / Next Generation Squad Weapon				Item Number / Title [DODIC]: G14513 / Next Generation Squad Weapon - Fire Control				
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Sheltered Wings DBA Vortex Optics - 1 Vortex Drive Barneveld, WI 53507	150	1,290	2,500	6	9	11	20	1	4	18	22

Remarks:
Long manufacturing production lead time due to electronic supply chain challenges.

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

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

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	P-1 Line Item Number / Title: 8635G15325 / Handgun
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	69.136	4.930	-	0.032	-	0.032	0.033	0.007	0.007	-	-	74.145
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	69.136	4.930	-	0.032	-	0.032	0.033	0.007	0.007	-	-	74.145
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	69.136	4.930	-	0.032	-	0.032	0.033	0.007	0.007	-	-	74.145

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	3.526	-	0.200	-	0.200	0.206	0.233	0.233	-	-	41.701

Description:

The Modular Handgun System (MHS) supports the Army Modernization priorities (Build a More Lethal Force) through enhancement of Joint Lethality in contested environments by minimizing and eliminating erosion of close combat capability relative to peer competitors in complex terrain as outlined in the National Defense Strategy (NDS). Currently, the M9 Semi-Automatic Pistol, which has been utilized as the Department of Defense's personal defense weapon since 1985, is being replaced by the new M17 Full Size Modular Handgun . The M18 Compact Size Modular Handgun will replace M11 Handguns. The Modular Handgun System is a Commercial Off the Shelf/ Non-Developmental Item (COTS/NDI) which delivers a more capable system (weapon, ammo and magazines) consistent with the planned force structure and emerging operational needs of the Army. The Modular Handgun System addresses M9 Pistol and M11 Pistol shortcomings with improved lethality, target acquisition, ergonomics, reliability, durability, and maintainability. The Modular Handgun System is ambidextrous capable and accommodates 5th-95th percentile users via modular grips and access to all controls with one hand.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.930	-	0.032	-	0.032	0.033	0.007	0.007	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.930	-	0.032	-	0.032	0.033	0.007	0.007	-

Justification:

FY 2024 Base procurement dollars in the amount of \$0.032 million supports the procurement of two-hundred (200) General Officer (GO) pistols and various spare parts for the Handgun.

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.

Handgun's Army Acquisition Objective (AAO) of 233,429 was met in FY 2020.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0604601A	Other Related Program Elements: 0604802A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	57.356	35.121	-	-	-	-	-	-	-	-	-	92.477
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	57.356	35.121	-	-	-	-	-	-	-	-	-	92.477
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	57.356	35.121	-	-	-	-	-	-	-	-	-	92.477

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	37.586	9.146	-	-	-	-	-	-	-	-	-	17.234

Description:

The MK-19 Grenade Machine Gun MODS program supports the Army Modernization priorities (Build a More Lethal Force) through enhancement of Joint Lethality in contested environments by minimizing and eliminating erosion of close combat capability relative to peer competitors in complex terrain as outlined in the National Defense Strategy (NDS). The MK-19 Mod 3 is a self-powered, air-cooled, 40mm automatic grenade machine gun with a firing rate of 325-375 rounds per minute. It is used to engage point targets up to 1,500 meters and provide suppressive fire at ranges up to 2,200 meters. Various system enhancements have been identified to improve the system by increasing operational capabilities and improving reliability, readiness, maintainability, and safety. The MK-19 is fielded with the MK-93 mount for vehicle utilization and the M205 Tripod for ground deployment during static defensive operations. An ongoing system improvement is application of an improved mechanical sight thru a Modification Work Order. The improved sight decreases the MK-19 logistic burden by reducing the number of parts as well as increasing Soldier lethality thru updated ballistic solutions. The Mounted Machine Gun Optic (MMO) will provide increased accuracy by equipping the MK-19 with a combined reflex and magnified optic to mounted Combat Support & Combat Service Support (CS/CSS) troops, who currently have no optic. The Mounted Machine Gun Optic (MMO) will significantly improve target identification, target acquisition and effective engagement time at extended ranges while retaining the capability of short range, transition fire. MK-93 Improvement Kits will enhance hit performance and improve Soldier interface with optical sighting systems during on the move engagement by dampening mount movement. The XM101 Programmer Unit (PU) provides the means for fuze setting for the 40mm High Velocity, High Explosive Dual Purpose-Air Burst (HEDP-AB) capability for the MK-19.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	35.121	-	-	-	-	-	-	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	35.121	-	-	-	-	-	-	-	-

Justification:

There is no FY 2024 budget request for this funding line.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh		P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0604601A	Other Related Program Elements: 0604802A
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.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	P-1 Line Item Number / Title: 3005GZ1700 / M777 Mods
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	42	-	42	264	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	165.045	16.576	3.374	18.920	-	18.920	20.014	2.424	1.556	1.557	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	165.045	16.576	3.374	18.920	-	18.920	20.014	2.424	1.556	1.557	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	165.045	16.576	3.374	18.920	-	18.920	20.014	2.424	1.556	1.557	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	450.476	-	450.476	75.811	-	-	-	Continuing	Continuing

Description:

The Lightweight 155mm Howitzer (LW155), also known as the M777A2, is a Joint Service program between the United States Marine Corps (USMC) and the United States Army. The M777A2 provides direct, reinforcing, and general support fires to maneuver forces and direct support artillery. The M777A2 was first introduced into the US Marine Corps (USMC) in 2005 and the Marines have fielded the howitzer to all active units. The Army has fielded the howitzer to its Stryker Brigade Combat teams (SBCT) and Infantry Brigade Combat teams (IBCT) including the National Guard. The M777A2 saw extensive action in Afghanistan and received high marks for its performance. The M777A2 fires unassisted projectiles to a range of 30 kilometers (km) and assisted projectiles to 40km. The addition of the digital fire control system enables the weapon to program and fire the improved Excalibur precision-guided munitions to ranges in excess of 40km with better than 10-meter Circular Error Probable (CEP) accuracy. The LW155 is the first ground combat system whose major structures are made of high strength titanium alloy and the system makes extensive use of hydraulics to operate the breech, load tray, recoil and wheel arms. The combination of titanium structures and the use of hydraulic systems resulted in a significant weight savings of 7,000 pounds over the legacy M198 howitzer system. Compared to the M198, the LW155 replaces three-times faster and displaces four-times faster. It traverses 32-percent more terrain worldwide and is 70-percent more survivable than the M198. It is a successful joint service program between the USMC and U.S. Army working together to develop, produce, field, and sustain the howitzer. The howitzer will be going through modernization of electronic components in its digital fire control system to ensure continued interoperability and survivability on the battlefield.

This budget line item also provides funding for various system critical Digital Fire Control System (DFCS) hardware and software modifications including, but not limited to, modern Software Defined Radios, Mission Computers, Chief of Section Display, and Assured Position, Navigation and Timing (A-PNT) (aka: M-Code).

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	-	42	-	42	162	-	-	-
	Total Obligation Authority	16.576	3.374	12.017	-	12.017	10.335	1.389	1.556	1.557
ANG	Quantity	-	-	-	-	-	102	-	-	-
	Total Obligation Authority	-	-	6.903	-	6.903	9.679	1.035	-	-
Total: Secondary Distribution	Quantity	-	-	42	-	42	264	-	-	-
	Total Obligation Authority	16.576	3.374	18.920	-	18.920	20.014	2.424	1.556	1.557

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	P-1 Line Item Number / Title: 3005GZ1700 / M777 Mods
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-3a	GZ1700 / M777 Mods (Increase Performance)		A		- / 165.045	- / 16.576	- / 3.374	42 / 18.920	- / -	42 / 18.920
P-40	Total Gross/Weapon System Cost				- / 165.045	- / 16.576	- / 3.374	42 / 18.920	- / -	42 / 18.920

Exhibits Schedule					FY 2025	FY 2026	FY 2027	FY 2028	To Complete	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-3a	GZ1700 / M777 Mods (Increase Performance)		A		264 / 20.014	- / 2.424	- / 1.556	- / 1.557	Continuing	Continuing
P-40	Total Gross/Weapon System Cost				264 / 20.014	- / 2.424	- / 1.556	- / 1.557	Continuing	Continuing

*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 2024 funding in the amount of \$18.920 million supports the integration of modernized Digital Fire Control System (DFCS) components and Assured Position, Navigation and Timing (APNT) compliance initiatives onto the M777 howitzer platform; continues the retrofit of previously procured hardware and software modifications; and other modernization efforts to the Digital Fire Control System (DFCS). APNT compliance initiatives will provide the M777A2 howitzer with the continued ability to conduct precision and near precision fires in a Global Positioning System (GPS) contested environment while maintaining current operational tempo. Modernization efforts to the Digital Fire Control System (DFCS) will enable continued system readiness.

Net funding increase of \$15.546 million from FY 2023 to FY 2024 reflects the commencement of the integration of the Digital Fire Control System (DFCS) operating system hardware and software modernization and procurement of radio integration kits to support operational requirements.

"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."

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Exhibit P-3a, Individual Modification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20	P-1 Line Item Number / Title: 3005GZ1700 / M777 Mods	Modification Number / Title: GZ1700 / M777 Mods

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	42	-	42	264	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	165.045	16.576	3.374	18.920	-	18.920	20.014	2.424	1.556	1.557	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	165.045	16.576	3.374	18.920	-	18.920	20.014	2.424	1.556	1.557	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	165.045	16.576	3.374	18.920	-	18.920	20.014	2.424	1.556	1.557	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	450.476	-	450.476	75.811	-	-	-	Continuing	Continuing

Description:

Modification 1- Retrofit and Composite Fielding Activities: Funding will support field retrofits of previously contracted Engineering Change Proposals for items such as the Mission Computer (MSC-R), Chief of Section Display (CSD-R), upgraded software, and radio hardware integration kits.

Modification 2 - Digital Fire Control System Modifications: Funding will address security and supportability issues through Software and Hardware Engineering Change Proposals. Specific Digital Fire Control Electronic Components to be procured and fielded such as: New Digital Fire Control Computers and Display Units and Radio Integration Kits. These components are required to support security and obsolescence issues and maintain current operational tempo.

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	-	42	-	42	162	-	-	-
	Total Obligation Authority	16.576	3.374	12.017	-	12.017	10.335	1.389	1.556	1.557
ANG	Quantity	-	-	-	-	-	102	-	-	-
	Total Obligation Authority	-	-	6.903	-	6.903	9.679	1.035	-	-
Total: Secondary Distribution	Quantity	-	-	42	-	42	264	-	-	-
	Total Obligation Authority	16.576	3.374	18.920	-	18.920	20.014	2.424	1.556	1.557

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Exhibit P-3a, Individual Modification: PB 2024 Army										Date: March 2023			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20					P-1 Line Item Number / Title: 3005GZ1700 / M777 Mods					Modification Number / Title: GZ1700 / M777 Mods			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: M777A2				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
Modification Item 1 of 3: Retrofit and Composite Fielding Activities													
A Kits													
Recurring													
Retrofit & Composite Fielding Activities	- / 27.244	- / 0.600	- / 1.450	- / 2.150	- / -	- / 2.150	- / 1.896	- / 1.597	- / 1.556	- / 1.557	Continuing	Continuing	
Subtotal: Recurring	- / 27.244	- / 0.600	- / 1.450	- / 2.150	- / -	- / 2.150	- / 1.896	- / 1.597	- / 1.556	- / 1.557	Continuing	Continuing	
Subtotal: Retrofit and Composite Fielding Activities	- / 27.244	- / 0.600	- / 1.450	- / 2.150	- / -	- / 2.150	- / 1.896	- / 1.597	- / 1.556	- / 1.557	Continuing	Continuing	
Modification Item 2 of 3: Digital Fire Control System Modifications													
A Kits													
Recurring													
APNT Initiatives	- / -	- / -	- / -	- / -	- / -	- / -	162 / 7.306	- / -	- / -	- / -	Continuing	Continuing	
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	162 / 7.306	- / -	- / -	- / -	Continuing	Continuing	
Non-Recurring													
Engineering Change Proposal	- / 12.895	- / -	- / 1.924	- / 12.656	- / -	- / 12.656	102 / 10.812	- / 0.827	- / -	- / -	Continuing	Continuing	
Radio Integration Kits	- / -	- / 15.976	- / -	42 / 4.114	- / -	42 / 4.114	- / -	- / -	- / -	- / -	- / -	42 / 20.090	
Software Integration	- / 12.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.700	
Electronic Communication Components	490 / 9.287	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	490 / 9.287	
Subtotal: Non-Recurring	490 / 24.882	- / 15.976	- / 1.924	42 / 16.770	- / -	42 / 16.770	102 / 10.812	- / 0.827	- / -	- / -	Continuing	Continuing	
Subtotal: Digital Fire Control System Modifications	490 / 24.882	- / 15.976	- / 1.924	42 / 16.770	- / -	42 / 16.770	264 / 18.118	- / 0.827	- / -	- / -	Continuing	Continuing	
Modification Item 3 of 3: Previous Modifications													
A Kits													
Non-Recurring													
Previous Modifications	- / 112.919	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 112.919	
Subtotal: Non-Recurring	- / 112.919	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 112.919	
Subtotal: Previous Modifications	- / 112.919	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 112.919	
Subtotal: Procurement, All Modification Items	490 / 165.045	- / 16.576	- / 3.374	42 / 18.920	- / -	42 / 18.920	264 / 20.014	- / 2.424	- / 1.556	- / 1.557	Continuing	Continuing	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													

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Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20	P-1 Line Item Number / Title: 3005GZ1700 / M777 Mods	Modification Number / Title: GZ1700 / M777 Mods
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Models of Systems Affected: M777A2 **Modification Type:** Increase Performance **Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Total Cost (Procurement + Support + Installation)	165.045	16.576	3.374	18.920	-	18.920	20.014	2.424	1.556	1.557	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3005GZ1700 / M777 Mods			Modification Number / Title: GZ1700 / M777 Mods	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 1 of 3: Retrofit and Composite Fielding Activities							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 2			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Jan 2022	Jan 2023	Jan 2024	Jan 2025	Jan 2026	Jan 2027	Jan 2028
Delivery Dates	Mar 2022	Mar 2023	Mar 2024	Mar 2025	Mar 2026	Mar 2027	Mar 2028
Installation Information							
Method of Implementation (Organic): Contract Options					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2024 Army					Date: March 2023		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3005GZ1700 / M777 Mods			Modification Number / Title: GZ1700 / M777 Mods	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 2 of 3: Digital Fire Control System Modifications							
Manufacturer Information							
Manufacturer Name: Multiple Vendors				Manufacturer Location: Multiple Locations			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 3			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	May 2022		May 2024	May 2025			
Delivery Dates	Jul 2022		Jul 2024	Jul 2025			
Installation Information							
Method of Implementation (Organic): Contracts					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3005GZ1700 / M777 Mods			Modification Number / Title: GZ1700 / M777 Mods	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 3 of 3: Previous Modifications							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Component hardware procurements					Installation Quantity: 0		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	P-1 Line Item Number / Title: 3015GB4000 / M2 50 Cal Machine Gun MODS
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0604601A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	407.300	7.076	3.000	-	-	-	-	-	-	-	-	417.376
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	407.300	7.076	3.000	-	-	-	-	-	-	-	-	417.376
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	407.300	7.076	3.000	-	-	-	-	-	-	-	-	417.376

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	974.402	15.655	-	-	-	-	-	-	-	-	-	479.743

Description:

The M2 .50 Cal Machine Gun MODS program supports the Army Modernization priorities (Build a More Lethal Force) through enhancement of Joint Lethality in contested environments by minimizing and eliminating erosion of close combat capability relative to peer competitors in complex terrain as outlined in the National Defense Strategy (NDS). The M2A1 Quick Change Barrel (QCB) Kit provides enhancements for the .50 Caliber M2 Heavy Barrel Machine Gun to provide the Soldier with the ability to quickly change barrels without the need to reset the headspace and timing and also reduces the visible muzzle flash. In a dismounted role, the M2/MK19 Machine Guns utilize the M205 Lightweight Tripod which reduces the Soldier burden by 16 pounds (32%) over the current M3 Tripod which weighs 50 pounds (including traverse and elevation mechanisms and pintle). The M205 Tripod provides integral traverse and elevation mechanisms for easier, more accurate target engagement and adjustable traverse limit stop for night time missions. The Mounted Machine Gun Optic (MMO) will provide increased accuracy by equipping Medium/Heavy Machine Guns, including the M2/M2A1, with a combined reflex and magnified optic to mounted Combat Support & Combat Service Support (CS/CSS) troops, who currently have no optic. The Mounted Machine Gun Optic (MMO) will significantly improve target identification, target acquisition and effective engagement time at extended ranges while retaining the capability of short range, transition fire. The MK93 is the primary mount used to interface the M2/M2A1 with all Army vehicles and ground mounts. MK93 Improvement Kits will enhance hit performance and improve Soldier interface with optical sighting systems during on the move engagement by dampening mount movement.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.076	3.000	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.076	3.000	-	-	-	-	-	-

Justification:

There is no FY 2024 budget request for this funding line.

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.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh		P-1 Line Item Number / Title: 3015GB4000 / M2 50 Cal Machine Gun MODS
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0604601A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	P-1 Line Item Number / Title: 3181GZ1500 / Sniper Rifles Modifications
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0604601A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	50.863	0.080	-	-	-	-	-	0.019	0.019	0.019	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	50.863	0.080	-	-	-	-	-	0.019	0.019	0.019	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	50.863	0.080	-	-	-	-	-	0.019	0.019	0.019	Continuing	Continuing

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

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

Description:

The Sniper Rifles Modifications program supports the Army Modernization priorities (Build a More Lethal Force) through enhancement of Joint Lethality in contested environments by minimizing and eliminating erosion of close combat capability relative to peer competitors in complex terrain as outlined in the National Defense Strategy (NDS). The program conducts investigative engineering studies, procure modifications or conversions of sniper weapons and related system components, Advanced Sniper Accessory Kit (ASAK) items, M151 Spotting Scope System, Tactical Tripod Kit (TTK) components, sniper optics, laser range finders, and ballistic compensating systems. Initial buys of items to support or meet operational needs and lighten sniper load. It includes the procurement of rifle scope optics, spotting scopes, an accompanying Accessory Interface Mounting kit (AIM), Improved Sniper Tripod, improved capabilities including an enhanced common reticle pattern and special tool kit.

This program also provides improved ancillary equipment such as intelligent rails, ballistic chronographs, Ballistic Weather Meter (BWM), Sniper Scope Covert Cap, Weapon Tripod Cradle, Sniper Data Board, improved Sniper Buttstock, Sniper Tool Kit, Sniper Accessory Mount, improved and/or recalibrated barrels, fire controls, muzzles with suppressors, other components, and support costs.

The current Army fleet of sniper weapons, consisting of the M14 Enhanced Battle Rifle (EBR) as interim Squad Designated Marksman weapon, the M110 Semi-Automatic Sniper System (SASS), the M2010 Enhanced Sniper Rifle (ESR), and the M107 Semi-Automatic Long Range Sniper Rifle (LRSR), require continuous upgrades to the weapon, components, and/or ancillary equipment. Sniper upgrades seek to enhance sniper mission capability, effectiveness, and survivability by extending the sniper's influence through emerging technologies in perfecting ballistics with exacting hardware and precise calculations, reducing sniper team burden through decreased weight and enhanced ergonomics, portability, signature-reduction, faster more precise target reconnaissance, surveillance, and target acquisition (RSTA) and precision aiming with automated ballistic prediction systems. Upgrades also support sniper/spotter mission collaboration with information sharing of targets and better situational awareness.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	0.080	-	-	-	-	-	0.019	0.019	0.019
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	0.080	-	-	-	-	-	0.019	0.019	0.019

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh		P-1 Line Item Number / Title: 3181GZ1500 / Sniper Rifles Modifications
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0604601A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
Justification: There is no FY 2024 budget request for this funding line. In accordance with Section 1815 of the FY 2008 National Defense 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.		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	12	493	-	493	96	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	396.741	-	2.263	13.097	-	13.097	7.450	1.258	1.209	1.210	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	396.741	-	2.263	13.097	-	13.097	7.450	1.258	1.209	1.210	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	396.741	-	2.263	13.097	-	13.097	7.450	1.258	1.209	1.210	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	188.583	26.566	-	26.566	77.604	-	-	-	Continuing	Continuing

Description:

The M119A3 Towed Howitzer provides direct fire support for the Infantry Brigade Combat Teams (IBCTs). Funding in the M119A3 Modifications budget supports the application of modernization system enhancements required to ensure continued operational availability including the integration of digital fire control components required to execute secure digital fire missions and maintain interoperability on the battlefield. Modifications include the upgrade of the systems legacy radio to a current Software Defined Radio to support new encryption protocols, and upgrade of the systems Fire Control Computer (FCC) to support migration to a new operating system. Modernization upgrades enhance crew survivability as direct supporting rapid emplacement, conducting of fire mission, and displacement. Funding in this program also supports the installation and retrofit of modification kits to the M119A3 Howitzer.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	12	226	-	226	96	-	-
	Total Obligation Authority	-	2.180	6.048	-	6.048	7.450	1.258	1.209
ANG	Quantity	-	-	267	-	267	-	-	-
	Total Obligation Authority	-	0.083	7.049	-	7.049	-	-	-
Total: Secondary Distribution	Quantity	-	12	493	-	493	96	-	-
	Total Obligation Authority	-	2.263	13.097	-	13.097	7.450	1.258	1.209

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army							Date: March 2023		
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh					P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications				
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-3a	GC0401 / M119 Modifications (Increase Performance)		A		- / 396.741	- / -	12 / 2.263	493 / 13.097	- / -	493 / 13.097
P-40	Total Gross/Weapon System Cost				- / 396.741	- / -	12 / 2.263	493 / 13.097	- / -	493 / 13.097

Exhibits Schedule					FY 2025	FY 2026	FY 2027	FY 2028	To Complete	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-3a	GC0401 / M119 Modifications (Increase Performance)		A		96 / 7.450	- / 1.258	- / 1.209	- / 1.210	Continuing	Continuing
P-40	Total Gross/Weapon System Cost				96 / 7.450	- / 1.258	- / 1.209	- / 1.210	Continuing	Continuing

*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 2024 funding in the amount of \$13.097 million supports the procurement of integration kits for a new radio to allow new encryption protocols and other modernization efforts to the Digital Fire Control System (DFCS). Integration of the new radio enables more secure radio communication and facilitates new encryption protocol interoperability between artillery and supported forces. The new radio will provide the ability to perform voice and data functions over the same radio which increases operational flexibility for firing units. Modernization efforts to the Digital Fire Control System (DFCS) will enable continued system readiness.

Net funding increase of \$10.834 million from FY 2023 to FY 2024 reflects the procurement of the Radio Integration kits and integration and qualification of a new Fire Control Computer to support an upgraded operating system and software.

"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."

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Exhibit P-3a, Individual Modification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20	P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications	Modification Number / Title: GC0401 / M119 Modifications

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	12	493	-	493	96	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	396.741	-	2.263	13.097	-	13.097	7.450	1.258	1.209	1.210	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	396.741	-	2.263	13.097	-	13.097	7.450	1.258	1.209	1.210	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	396.741	-	2.263	13.097	-	13.097	7.450	1.258	1.209	1.210	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	188.583	26.566	-	26.566	77.604	-	-	-	Continuing	Continuing

Description:

Modifications to M119A2 Howitzer:

Modification 1 (Digitization): Procurement of the Digital Fire Control System contracted separately for each major component, with various contract award dates. Application occurs in Battalion sets of 17 each over two-month periods.

Modification 2 (Recoil Capability Package): New recoil system which enhances the survivability of the M119. The recoil system upgrade consists of the recoil buffer, recuperator, and suspension modification.

Modification 3 (TADSS): Training Aids, Devices, Simulators and Simulations (TADSS) for use in training artillerymen and maintainers in fielded units as well as in classroom instruction at school houses.

Modification 4 (Power System): Procure new power supply for the M119A3 Digital Fire Control System. The modification increased system electrical power to meet system operating requirements for low temperature environments.

Modification 5 (Durability): Procurement of: 502 each lightweight more durable titanium firing platforms, 502 each Fire Control Computer (FCC) covers to protect FCC from damage and, 250 each FCC thumb sticks/mouse to allow FCCs with damaged touch screens to remain mission capable. Prior years optimized the design of the spades on the M119 howitzer to increase durability and decrease weight.

Modification 6 (Retrofit and Composite Fielding Activities): Retrofit current howitzer fleet with upgraded recoil capability package, Titanium Firing Platform, Digital Fire Control System components, Resiliency and Software Assurance Modification, Blast Over Pressure software upgrade and Software Defined Radio. Fielding of the Digital Fire Control System completed in FY 2018, while other retrofit activities continued through FY 2021.

Modification 7 (Program Management): Program management support to the M119A3 Howitzer: lifecycle management, coordination & synchronization of field artillery solutions, technical oversight of projects, and business management functions.

Modification 8 (Software, Cyber Security) Resiliency Software Assurance Modification (RSAM): Qualify the Resiliency and Software Assurance Modification to ensure a robust GPS capability on the M119 howitzer. Apply software upgrade to the GPS GB-GRAM receiver on the M119 fleet via a Modification Work Order. Upgrade software on the FCC to more accurately account for Blast Over Pressure effects on M119 crew and send a warning when safety limits approach.

Modification 9 (Digital Fire Control Tech Refresh) Procures integration hardware, such as cables and mounting brackets for software defined radio into digital fire control of M119 platform.

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Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20	P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications	Modification Number / Title: GC0401 / M119 Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Secondary Distribution		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	12	226	-	226	96	-	-	-
	Total Obligation Authority	-	2.180	6.048	-	6.048	7.450	1.258	1.209	1.210
ANG	Quantity	-	-	267	-	267	-	-	-	-
	Total Obligation Authority	-	0.083	7.049	-	7.049	-	-	-	-
Total: Secondary Distribution	Quantity	-	12	493	-	493	96	-	-	-
	Total Obligation Authority	-	2.263	13.097	-	13.097	7.450	1.258	1.209	1.210

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Exhibit P-3a, Individual Modification: PB 2024 Army										Date: March 2023			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20					P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications					Modification Number / Title: GC0401 / M119 Modifications			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: M119A3 Howitzer				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
Modification Item 1 of 9: Digitization													
A Kits													
Recurring													
Integration Prod/Init Spares	502 / 133.497	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 133.497	
Logistics & Fielding	- / 16.883	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.883	
Program Management	- / 11.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.409	
System Engineering	- / 19.576	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 19.576	
Engineering Change Orders (ECO)	- / 15.723	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.723	
Subtotal: Recurring	502 / 197.088	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 197.088	
Subtotal: Digitization	502 / 197.088	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 197.088	
Modification Item 2 of 9: Recoil Capability Package													
A Kits													
Recurring													
Recoil System Upgrade	502 / 47.579	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 47.579	
Subtotal: Recurring	502 / 47.579	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 47.579	
Subtotal: Recoil Capability Package	502 / 47.579	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 47.579	
Modification Item 3 of 9: Training Devices (TADSS)													
A Kits													
Non-Recurring													
Training Devices	- / 13.470	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.470	
Subtotal: Non-Recurring	- / 13.470	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.470	
Subtotal: Training Devices (TADSS)	- / 13.470	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.470	
Modification Item 4 of 9: Power System Management													
A Kits													
Non-Recurring													
Power System Mods	502 / 6.815	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 6.815	
Subtotal: Non-Recurring	502 / 6.815	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 6.815	
Subtotal: Power System Management	502 / 6.815	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 6.815	
Modification Item 5 of 9: Durability Modification													
A Kits													

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Exhibit P-3a, Individual Modification: PB 2024 Army										Date: March 2023			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20					P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications					Modification Number / Title: GC0401 / M119 Modifications			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: M119A3 Howitzer				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Non-Recurring													
Spades	- / 2.335	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.335	
Fire Control Computer Thumbsticks	- / 1.658	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.658	
Titanium Firing Platforms	502 / 24.769	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 24.769	
Fire Control Computer Cover	- / 1.443	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.443	
Subtotal: Non-Recurring	502 / 30.205	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 30.205	
Subtotal: Durability Modification													
	502 / 30.205	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	502 / 30.205	
Modification Item 6 of 9: Retrofit and Composite Fielding Activities													
A Kits													
Recurring													
Retrofit and Composite Fielding Activiti	- / 88.543	- / -	- / -	- / -	- / -	- / -	- / 1.300	- / 1.258	- / 1.209	- / 1.210	Continuing	Continuing	
Subtotal: Recurring	- / 88.543	- / -	- / -	- / -	- / -	- / -	- / 1.300	- / 1.258	- / 1.209	- / 1.210	Continuing	Continuing	
Subtotal: Retrofit and Composite Fielding Activities	- / 88.543	- / -	- / -	- / -	- / -	- / -	- / 1.300	- / 1.258	- / 1.209	- / 1.210	Continuing	Continuing	
Modification Item 7 of 9: Program Management													
A Kits													
Recurring													
Program Management	- / 3.314	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.314	
Subtotal: Recurring	- / 3.314	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.314	
Subtotal: Program Management	- / 3.314	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.314	
Modification Item 8 of 9: Software, Cyber Security													
A Kits													
Non-Recurring													
Blast Over Pressure Mitigation Software	- / 3.778	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.778	
RSAM	- / 0.683	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.683	
Subtotal: Non-Recurring	- / 4.461	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.461	
Subtotal: Software, Cyber Security	- / 4.461	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.461	
Modification Item 9 of 9: Digital Fire Control Tech Refresh													
A Kits													
Non-Recurring													
Software Defined Radio	- / 5.266	- / -	- / 2.263	493 / 13.097	- / -	493 / 13.097	96 / 6.150	- / -	- / -	- / -	- / -	589 / 26.776	

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Exhibit P-3a, Individual Modification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20	P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications	Modification Number / Title: GC0401 / M119 Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Models of Systems Affected: M119A3 Howitzer **Modification Type:** Increase Performance **Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<i>Subtotal: Non-Recurring</i>	- / 5.266	- / -	- / 2.263	493 / 13.097	- / -	493 / 13.097	96 / 6.150	- / -	- / -	- / -	- / -	589 / 26.776
<i>Subtotal: Digital Fire Control Tech Refresh</i>	- / 5.266	- / -	- / 2.263	493 / 13.097	- / -	493 / 13.097	96 / 6.150	- / -	- / -	- / -	- / -	589 / 26.776
<i>Subtotal: Procurement, All Modification Items</i>	2,008 / 396.741	- / -	- / 2.263	493 / 13.097	- / -	493 / 13.097	96 / 7.450	- / 1.258	- / 1.209	- / 1.210	Continuing	Continuing
Installation												
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	396.741	-	2.263	13.097	-	13.097	7.450	1.258	1.209	1.210	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications			Modification Number / Title: GC0401 / M119 Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 1 of 9: Digitization							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 11			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Organic					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications			Modification Number / Title: GC0401 / M119 Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 2 of 9: Recoil Capability Package							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 2			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Organic					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications			Modification Number / Title: GC0401 / M119 Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 3 of 9: Training Devices (TADSS)							
Manufacturer Information							
Manufacturer Name: Organic				Manufacturer Location: Various			
Administrative Leadtime (in Months): 9				Production Leadtime (in Months): 1			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Organic					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications			Modification Number / Title: GC0401 / M119 Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 4 of 9: Power System Management							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 2			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Organic					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications			Modification Number / Title: GC0401 / M119 Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 5 of 9: Durability Modification							
Manufacturer Information							
Manufacturer Name: Howmet Corporation				Manufacturer Location: Hampton, VA			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 14			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Organic					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications			Modification Number / Title: GC0401 / M119 Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 6 of 9: Retrofit and Composite Fielding Activities							
Manufacturer Information							
Manufacturer Name: Loyal Source Government Services				Manufacturer Location: Various			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 2			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates	Jan 2022	Jan 2023	Jan 2024	Jan 2025	Jan 2026	Jan 2027	Jan 2028
Delivery Dates	Mar 2022	Mar 2023	Mar 2024	Mar 2025	Mar 2026	Mar 2027	Mar 2028
Installation Information							
Method of Implementation (Organic): Contractor and Organic					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications			Modification Number / Title: GC0401 / M119 Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 7 of 9: Program Management							
Manufacturer Information							
Manufacturer Name: NA				Manufacturer Location: NA			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Organic					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications			Modification Number / Title: GC0401 / M119 Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 8 of 9: Software, Cyber Security							
Manufacturer Information							
Manufacturer Name: NA				Manufacturer Location: NA			
Administrative Leadtime (in Months): 5				Production Leadtime (in Months):			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Organic					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2024 Army						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3640GC0401 / M119 Modifications			Modification Number / Title: GC0401 / M119 Modifications	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 9 of 9: Digital Fire Control Tech Refresh							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 9			
Dates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Contract Dates		Jan 2023	Jan 2024	Jan 2025			
Delivery Dates		Oct 2023	Oct 2024	Oct 2025			
Installation Information							
Method of Implementation (Organic): Organic					Installation Quantity: 0		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	P-1 Line Item Number / Title: 7054G02100 / Mortar Modification
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	138.180	-	-	0.423	-	0.423	-	-	-	-	-	138.603
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	138.180	-	-	0.423	-	0.423	-	-	-	-	-	138.603
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	138.180	-	-	0.423	-	0.423	-	-	-	-	-	138.603

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

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

Description:

BLI 7054G02100 / Mortar Modification is a new start in FY 2024.

Mortar System Modification provides 60mm Lightweight M224A1, 81mm Lightweight M252A1 and 120mm M120A1/M121 mortar weapon systems modification to support current and modernized mounted and dismounted platforms and enables the replacement of aging/obsolete major system components and subcomponents including Basic Issue Items (BI) kits, Additional Authorized List (AAL) items, Modified Work Order (MWO) kits, Engineering Change Proposals (ECPs), Technical Data Packages (TDPs), etc. These modification efforts increase producibility, manufacturability and procurement of required assets within the United States industrial base, supporting higher firing pressures, integration of new components for system accuracy, reliability, and enable better tracking cannon service life and address obsolescence and/or technical issues related to weapon system safety.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	0.423	-	0.423	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	0.423	-	0.423	-	-	-

Justification:

FY 2024 Base procurement dollars in the amount of \$0.423 million will support M326 Mortar Stowage Kit (MSK) upgrades and M1101 / M1102 trailers obsolescence, producibility, and soldier safety requirements. The funding will also support tactical vehicle integration efforts to address MSK/trailer obsolescence, which will improve soldier maneuverability. These efforts are required to meet US Army requirements to address obsolescence, improve soldier safety and manufacturability of mortar systems currently fielded to Infantry Brigade Combat Teams (IBCTs), Stryker Brigade Combat Teams (SBCTs), Armored Brigade Combat Teams (ABCTs), as well as the Special Forces Groups and Ranger Regiments.

G02100 / Mortar Modification is a new start in FY 2024.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh		P-1 Line Item Number / Title: 7054G02100 / Mortar Modification
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		

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.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities	P-1 Line Item Number / Title: 1862GL3200 / Items Less Than \$5.0m (WOCV-WTCV)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	148.774	13.826	2.138	1.148	-	1.148	1.055	2.237	2.241	2.243	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	148.774	13.826	2.138	1.148	-	1.148	1.055	2.237	2.241	2.243	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	148.774	13.826	2.138	1.148	-	1.148	1.055	2.237	2.241	2.243	Continuing	Continuing

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

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

Description:

This program supports the Army Modernization priorities (Build a More Lethal Force) through enhancement of Joint Lethality in contested environments by minimizing and eliminating erosion of close combat capability relative to peer competitors in complex terrain as outlined in the National Defense Strategy (NDS). Program provides for the procurement and fielding of standard and non-standard small arms to include auxiliary components such as tripods, combat optics, protective lens coatings for optics, fire controls, suppressors, powered/ intelligent rails, weapon mounts/platforms, and adaptors and to meet urgent needs or initial buys. Weapons and auxiliary components procured under this budget activity in prior years consist of MK48 Machine Guns, Modular Handgun System (MHS) and associated Basic Issue Items (BI), M500 Mossberg Shotguns, MP5KA and APC9K Submachine Guns to include magazines, clamps, holsters, slings, lanyards, spare parts and cleaning kits.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	13.826	2.138	1.148	-	1.148	1.055	2.237	2.241	2.243
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	13.826	2.138	1.148	-	1.148	1.055	2.237	2.241	2.243

Justification:

FY 2024 Base procurement dollars in the amount of \$1.148 million supports the Active Army by providing funding for the procurement, fielding, training, and safety assessments of various Standard and Non-Standard Weapons and accessories. These weapons are required to facilitate training of U.S. Army and foreign security forces on host nation weapon systems. Funding will also purchase Non-Standard weapons to support the Regionally Aligned Forces (RAF), Security Force Assistance Brigades, International Special Training Center (ISTC), Security Force Assistance Foreign Weapons Course, Military Advisor Training Academy, as well as and Army National Guard to include Biathlon Teams to maintain and procure the specialized target rifles/accessories, replica M1873 ceremonial pistols for the 11th Armored Cavalry Regiment (ACR), pistols and accessories. Air Rifles for Police/Provost Marshal Division to assist with varmint control, standard and non-standard caliber Pistols, Rifles, Shot Guns, Machine Guns, Grenade Launchers, and Shooting glasses and scopes. Includes limited distribution weapons/accessories such as world class Olympic Grade marksmanship weapons and accessories to support the Army Marksmanship Unit (AMU) as needed.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities		P-1 Line Item Number / Title: 1862GL3200 / Items Less Than \$5.0m (WOCV-WTCV)
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		
<p>The Army will procure the Modular Handgun System (MHS) and associated Basic Issue Items (BII) as needed.</p> <p>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.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities	P-1 Line Item Number / Title: 3270GC0050 / Production Base Support (WOCV-WTCV)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	399.586	118.504	225.220	115.024	-	115.024	119.237	95.788	75.874	75.948	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	399.586	118.504	225.220	115.024	-	115.024	119.237	95.788	75.874	75.948	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	399.586	118.504	225.220	115.024	-	115.024	119.237	95.788	75.874	75.948	Continuing	Continuing

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

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

Description:

This program provides funding to establish, modernize, expand, or replace Army-owned industrial facilities and equipment used in production and production testing of Weapons and Tracked Combat Vehicles (WTCV) and their components. The program also provides for the preserving, storing, and disposing for facilities and equipment that are either not required for current active production or are not needed by the Army.

Production Base Support occurs at Watervliet Arsenal (WVA), NY; the Joint Systems Manufacturing Center (JSMC), also known as the Lima Army Tank Plant located in Lima, Ohio, and the Joint Manufacturing and Technology Center (JMTC) at Rock Island Arsenal (RIA), IL. This program also provides funding for the Arsenal 5-Year Plan(s) for sustainment and modernization.

This program also provides funding to the Army Test and Evaluation Command (ATEC) to establish, modernize, expand, or replace test facilities used in production testing of Weapons and Tracked Combat Vehicles and their components. It sustains Army production test capabilities through upgrade and replacement of instrumentation and equipment that is technologically and/or economically obsolete.

Modernization of test instrumentation and equipment provides increased automation and efficiencies, improved data quality and quantity and cost avoidance to Army Program Managers. Programmed funding will be used to upgrade or replace production test instrumentation and equipment at Aberdeen Test Center (ATC), Aberdeen Proving Ground, MD; White Sands Test Center (WSTC), White Sands Missile Range, NM, and Yuma Test Center (YTC), Yuma Proving Ground, AZ.

Secondary Distribution	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	118.504	225.220	115.024	-	115.024	119.237	95.788	75.874	75.948
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	118.504	225.220	115.024	-	115.024	119.237	95.788	75.874	75.948

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities	P-1 Line Item Number / Title: 3270GC0050 / Production Base Support (WOCV-WTCV)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Project Schedule		Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Exhibit Type	Project	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)
<i>(Uncategorized)</i>		-	118.504	225.220	115.024	-	115.024
	BAE Production Facility	-	27.500	-	-	-	-
P-25	BAE-001 - BAE York Facilitation to increase and accelerate Armored Multi Purpose Vehicle (AMPV) production	-	27.500	-	-	-	-
	Watervliet Arsenal (WVA)	-	25.662	221.539	32.680	-	32.680
P-25	WVA0001 - Mortar Production Modernization	-	10.662	-	-	-	-
P-25	WVA0005 - New Paint Booth	-	15.000	-	-	-	-
P-25	WVA0008 - Radial Forge Replacement	-	-	65.000	-	-	-
P-25	WVA0009 - Electro-Chemical Machining System for Cannon Rifling	-	-	10.000	-	-	-
P-25	WVA0010 - Hex-Trivalent Process Verification	-	-	3.850	-	-	-
P-25	WVA0011 - Rifled WaterJet and Verification	-	-	10.000	-	-	-
P-25	WVA0012 - ECM Facility Transition (Rifled Tubes)	-	-	4.500	-	-	-
P-25	WVA0013 - ECM Tooling and Profile Verification	-	-	4.200	-	-	-
P-25	WVA0014 - Convert disused Hexavalent Chrome plating facility to Trivalent Chrome	-	-	7.000	-	-	-
P-25	WVA0015 - Chrome Tooling (Anodes & Cathodes)	-	-	3.000	-	-	-
P-25	WVA0016 - Rifled Cold-Spray System (Spindle Lathe, Facilities, System)	-	-	14.250	-	-	-
P-25	WVA0017 - Anodize Line (Reconstitute in-house process)	-	-	2.000	-	-	-
P-25	WVA0018 - Cannon Production High Voltage Substation Modernization	-	-	3.000	-	-	-
P-25	WVA0019 - Inspection Gauges - XM35	-	-	2.000	-	-	-
P-25	WVA0020 - Cannon Billet Pre-Heat Induction Furnace System	-	-	7.000	-	-	-
P-25	WVA0021 - Guided Bore System for ERCA Length Cannon	-	-	10.000	-	-	-
P-25	WVA0022 - External Cylindrical Grinder	-	-	3.400	-	-	-
P-25	WVA0023 - Overhead Cannon Transport Crane Modernization (Buildings 20, 35, 220, and 135)	-	-	17.000	-	-	-
P-25	WVA0024 - ERCA Vertical Turning Lathe Set (Breech Manufacture)	-	-	6.800	-	-	-
P-25	WVA0025 - Cannon Production Compressed Air Distribution Modernization	-	-	5.000	-	-	-
P-25	WVA0026 - Cannon Production High Voltage Power Distribution Modernization	-	-	10.000	-	-	-
P-25	WVA0027 - WVA Miscellaneous Small Projects	-	-	4.268	2.680	-	2.680
P-25	WVA0035 - Horizontal Milling Center	-	-	1.000	-	-	-
P-25	WVA0037 - Excess Equipment, Floor Repairs, Relocate Equipment	-	-	0.971	-	-	-
P-25	WVA0038 - Filament Winder 1/2 (120mm Bore Evacuator)	-	-	1.000	-	-	-
P-25	WVA0039 - Filament Winder 2/2 (120mm Bore Evacuator)	-	-	1.000	-	-	-
P-25	WVA0040 - 2nd M256 Cold Spray System	-	-	4.400	-	-	-
P-25	WVA0041 - ID Grinder 1/2	-	-	2.850	-	-	-
P-25	WVA0042 - ID Grinder 2/2	-	-	2.850	-	-	-
P-25	WVA0043 - Hone 1/2	-	-	0.900	-	-	-

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities **P-1 Line Item Number / Title:**
 3270GC0050 / Production Base Support (WOCV-WTCV)

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Exhibit Type	Project	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)
P-25	WVA0044 - Hone 2/2	-	-	0.900	-	-	-
P-25	WVA0045 - M256 Waterjet	-	-	3.200	4.200	-	4.200
P-25	WVA0046 - M256 Waterjet Foundation	-	-	1.000	-	-	-
P-25	WVA0047 - Gymnasticator	-	-	2.200	-	-	-
P-25	WVA0049 - Horizontal Machining Center	-	-	1.000	-	-	-
P-25	WVA0050 - Hollow Spindle Lathe	-	-	6.000	-	-	-
P-25	WVA0051 - Two (2) Surface Grinders	-	-	-	3.200	-	3.200
P-25	WVA0052 - Tube Runout Table	-	-	-	1.200	-	1.200
P-25	WVA0053 - Wire Electric Discharge Machine	-	-	-	1.400	-	1.400
P-25	WVA0054 - Quality Control Inspection Equipment	-	-	-	5.400	-	5.400
P-25	WVA0055 - Tri-Chrome Conversion	-	-	-	9.400	-	9.400
P-25	WVA0056 - Cannon Preform Advanced Material Purchase	-	-	-	1.200	-	1.200
P-25	WVA0057 - Minor Plating Reconstitution	-	-	-	4.000	-	4.000
	Joint Systems Manufacturing Center (JSMC) - Lima	-	46.692	-	60.306	-	60.306
P-25	JSMC001 - JSMC Miscellaneous Small Projects	-	7.485	-	16.263	-	16.263
P-25	JSMC008 - Remove TM004 and Install New Machine at TM005 Location	-	6.500	-	-	-	-
P-25	JSMC009 - Replace CE92 & CE96 Vertical Machining Centers (VMCs)	-	2.500	-	-	-	-
P-25	JSMC010 - Remove TR76 and TR77 and Replace with (1) Vertical Machining Center (VMC)	-	1.750	-	-	-	-
P-25	JSMC011 - Replace SB13 with Robotic Blast Booth	-	5.500	-	-	-	-
P-25	JSMC012 - RFID Asset Tracking	-	1.653	-	-	-	-
P-25	JSMC013 - Robotic Machine Tending Systems	-	1.000	-	-	-	-
P-25	JSMC014 - Repair/Refurbish/Replace Locomotive(s)	-	2.381	-	-	-	-
P-25	JSMC015 - Autonomous Material Handling	-	2.000	-	-	-	-
P-25	JSMC016 - Build 351 - Rehab South End Office Complex	-	2.000	-	-	-	-
P-25	JSMC017 - Water Tower Piping Renovation	-	7.540	-	-	-	-
P-25	JSMC018 - Replace Arch Beam Cranes - Safety Recall	-	4.121	-	-	-	-
P-25	JSMC020 - Building 281 Replace Drag Line	-	1.102	-	-	-	-
P-25	JSMC021 - Replace Cooling Tower in Power House	-	1.160	-	-	-	-
P-25	JSMC022 - Rehabilitate Hardstand Pavement	-	-	-	1.061	-	1.061
P-25	JSMC023 - B147 Replace Drag Line	-	-	-	1.180	-	1.180
P-25	JSMC024 - Replace Fire Sprinkler System Components	-	-	-	3.609	-	3.609
P-25	JSMC025 - Structural Repair of B142	-	-	-	1.785	-	1.785
P-25	JSMC026 - 480V Substation Work	-	-	-	1.817	-	1.817
P-25	JSMC027 - Upgrade Cranes CO0112 and CO0431 Turret Line Station 0	-	-	-	1.850	-	1.850

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities	P-1 Line Item Number / Title: 3270GC0050 / Production Base Support (WOCV-WTCV)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Project Schedule		Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Exhibit Type	Project	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)
P-25	JSMC028 - Replacement of Government Owned Mobile Equipment (Forklifts, Walk behind, Pallet Jack)	-	-	-	1.500	-	1.500
P-25	JSMC030 - B147 Shaw Box Overhead Cranes	-	-	-	5.000	-	5.000
P-25	JSMC031 - Building 351 Outside Utilities Replacement	-	-	-	6.857	-	6.857
P-25	JSMC032 - Replace (2) Turret Machines (TM) TM006/TM007	-	-	-	7.909	-	7.909
P-25	JSMC033 - Building 147 South Side Underground Infrastructure Improvement	-	-	-	8.570	-	8.570
P-25	JSMC035 - Electronic Fabrication & Assembly Inspection	-	-	-	0.952	-	0.952
P-25	JSMC036 - Electronic Final Inspection Records	-	-	-	0.976	-	0.976
P-25	JSMC037 - Level/Alignment of Hull Machines (HM) HM0035 & HM0036	-	-	-	0.977	-	0.977
	Rock Island Arsenal - Joint Manufacturing and Technology Center (RIA-JTMC)	-	14.982	-	18.222	-	18.222
P-25	JMTC002 - Thick Plate Machining Line Equipment	-	10.169	-	-	-	-
P-25	JMTC003 - Tool Room Modernization	-	0.938	-	-	-	-
P-25	JMTC004 - CNC Cutting Table and Spreader	-	0.375	-	-	-	-
P-25	JMTC005 - Bridge Mill (Thick plate machining line)	-	3.500	-	-	-	-
P-25	JMTC006 - JMTC Miscellaneous Small Projects	-	-	-	1.750	-	1.750
P-25	JMTC007 - Flexible Plating Line	-	-	-	1.236	-	1.236
P-25	JMTC008 - Sand Handling System	-	-	-	1.236	-	1.236
P-25	JMTC009 - Upgrade Existing Paint Booths	-	-	-	4.500	-	4.500
P-25	JMTC010 - Sand Printing Package	-	-	-	2.000	-	2.000
P-25	JMTC011 - Large, Multi-Axis Machining	-	-	-	7.500	-	7.500
	Army Test and Evaluation Command (ATEC) Facilities	-	3.668	3.681	3.816	-	3.816
P-25	ATEC - ATEC Facilities	-	3.668	3.681	3.816	-	3.816
	Total Gross/Weapon System Cost	-	118.504	225.220	115.024	-	115.024

*For the P-17 and P-25, the Project column displays a three-level indentation: Project Category (e.g., Environmental), followed by the Facility, followed by the Project Name. Exhibits with no Project Category are included under the "Uncategorized" category. For the P-26, the Project column displays a two-level indentation: Project Type (e.g., Inactive Plants, Inactive Lines at Contractor Plants and Inactive Lines at Active Plants), followed by the Facility. Note also that although all P-17, P-25 and P-26 projects are shown in the project schedule, not all projects will have a corresponding exhibit. A P-17 or P-25 exhibit is only included if data beyond the Project Number, Project Title and Cost are included (for example: for the P-17, Description, Manufacturer, etc.; for the P-25, Narrative Explanation, Cost Elements, Principle Milestones, etc.). A P-26 exhibit is only included if data beyond Project Type and Total Cost are included (for example, Description, Contractor, Maintenance/Recurring/Environmental/Other costs, etc.).

Justification:
 FY 2024 Base procurement dollars in the amount of \$115.024 million supports Army Production Base Support activities at Watervliet Arsenal (WVA) in Watervliet, NY; Joint Systems Manufacturing Center (JSMC) in Lima, OH, Joint Manufacturing and Technology Center (JMTC) at Rock Island Arsenal (RIA), IL, and the Army Test and Evaluation Command (ATEC). The significant investment in WVA, JSMC, and JMTC is due to aging infrastructure and the increased organic industrial base capabilities, the manufacturing of equipment, and facility improvements. The objective is to advance industrial base capabilities in order to implement risk mitigation strategies that ensure production capacities meet required aggregate demand.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Army		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities		P-1 Line Item Number / Title: 3270GC0050 / Production Base Support (WOCV-WTCV)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>The activities of the Army Production Base Support are as follows:</p> <p>Production Base Support activities:</p> <ul style="list-style-type: none"> - Watervliet Arsenal (WVA): \$32.680M Supports organic industrial base upgrades and improvement at WVA to optimize production of 120mm gun tubes. Major efforts include replacement of critical production equipment such as surface grinders, wire electric discharge, quality control inspection equipment and conversion from hexavalent chromium plating to trivalent chromium plating. - Joint Systems Manufacturing Center (JSMC) - Lima: \$60.306M supports organic industrial base upgrades and improvement at JSMC to optimize Abrams M1A2 production. Major efforts include replacement of end of life equipment and production infrastructure used in the manufacture of M1A2 tanks, modernization of equipment and infrastructure used in the manufacture of M1A2 tanks, and upgrade of real property at JSMC. - Rock Island Arsenal-Joint Manufacturing and Technology Center (RIA-JMTC): \$18.222M supports organic industrial base upgrades and improvements at RIA to optimize production. Major efforts include a bridge mill, modernized paint booth, waterjet cutter, land laser cutter, FY 2024 PBS will further support engineering hours, manufacturing feasibility studies, and equipment design efforts associated with planned out-year projects at critical Organic Industrial Base (OIB) production sites. This will reduce contracting lead times, address long lead items, and reduce production risk. These efforts include engineering hours and materials associated with gun tube manufacturing capability, utility upgrades, overhead cranes and lifting devices, maintenance and upgrade to hull and turret machining operations, and maintenance and upgrade of weld capabilities. <p>Army Test and Evaluation Command (ATEC): \$3.816 million supports:</p> <ul style="list-style-type: none"> - Aberdeen Test Center (ATC) continued modernization of fire control instrumentation required to assess weapon system fire control performance on a wide range of test items. Aberdeen Test Center will continue replacing and upgrading weapon, sight, and target scoring high-definition video cameras, recorders, digital video processing systems, fiber optic converters, and telemetry systems. Replacement equipment is scheduled to address obsolescence issues, software compatibility gaps, and deterioration of existing hardware while ensuring test equipment maintains pace with technological advances of test items to preclude lack of test support. Aberdeen Test Center will also procure new instrumentation that will allow Electromagnetic Interference (EMI) testing of current and future military platforms, including autonomous vehicles. - White Sands Test Center (WSTC), ATEC will continue to maintain and upgrade existing equipment and instrumentation for the developing and evolving White Sands Missile Range (WSMR) to include directed energy, High-Power Microwave (HPM), Electromagnetic Pulse (EMP) and lightning effects test simulators. These items include sensors, oscilloscopes, fiber optic links, vacuum systems, cryogenic superconducting magnets, waveguides, antennas, cathodes, insulators, and various cabling and subassemblies. These efforts will help the White Sands Test Center meet regulatory, customer, and/or evolving mission requirements. - Yuma Test Center (YTC) will acquire upgrades sensors, sensor positioning equipment, control hardware, signal conditioners, and other data acquisition equipment and software to modernize and improve accuracy and efficiency of ballistics data acquisition. 		

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army	Date: March 2023
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Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30	P-1 Line Item Number / Title: 3270GC0050 / Production Base Support (WOCV-WTCV)
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Project Title: BAE York Facilitation to increase and accelerate Armored Multi Purpose Vehicle (AMPV) production	Project Number: BAE-001	Project Category:
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End Item Supported Model: AMPV	Annual Capacity Before / After (1-8-5): 12 / 16
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Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: BAE Production Facility Facility Location: York, PA Facility Type (GOGO, GOCO, COCO): COCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	27.500	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	27.500	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 funding supports the Armored Multi Purpose Vehicle industrial base at the BAE Systems Contractor-Owned Contractor-Operated facilities in York, PA in support of the acceleration in production capacity of the AMPV vehicles.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Mortar Production Modernization **Project Number:** WVA0001 **Project Category:**

End Item Supported Model: Mortar Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	6.662	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Jun 2022 Initial/Final Project Award: Apr 2021 Construction Complete: Jan 2024 Equipment Installation Complete: May 2023 Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	1.600	-	-	-	-							
C. Equipment Installation Cost	2.400	-	-	-	-							
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	10.662	-	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$10.662 million supports construction, as well as, procurement and installation of equipment to continue modernization of Building 125, originally constructed in the early 1900s, into a dedicated mortar factory at Watervliet Arsenal (WVA), NY. This project will provide for a focused factory concept with a consolidated manufacturing line and dedicated team to support the production of all mortar systems. This project will reduce manufacturing lead time by at least 50% and provided increased throughput by 200% - 400%.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: New Paint Booth **Project Number:** WVA0005 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO																		
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:																		
B. Equipment Cost	-	-	-	-	-																			
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	15.000	-	-	-	-	Related Projects <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">Title</th> <th style="width: 10%;">FY & Appn</th> <th style="width: 10%;">Value (\$ M)</th> <th style="width: 10%;">Facing</th> <th style="width: 10%;">Start Date</th> <th style="width: 10%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>					Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date						Compl Date													
Total Project Cost	15.000	-	-	-	-																			

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$15.000 million support procurement of a new Paint Booth at Watervliet Arsenal (WVA), New York. The current booth is inefficient for cannon tubes and major components; the present booth can only accomodate up to (4) Extended Range Cannon Artillery (ERCA) cannon tubes or a larger number of smaller items. New Paint Booth technologies will include robotics and climate control which will enhance throughput, apply coatings to micron thickness and reduce rework. This project will also benefit other programs like Abrams and Mortars, which are painted at WVA.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Radial Forge Replacement **Project Number:** WVA0008 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	14.000	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	25.000	-	-	-							
C. Equipment Installation Cost	-	7.000	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	6.000	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	8.000	-	-	-							
H. Other Costs	-	5.000	-	-	-							
Total Project Cost	-	65.000	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$65.000 million supports the procurement and installation of replacement Radial Forge for use at Watervliet Arsenal, NY. The existing Radial Forge was installed and has been in operation since 1974. Across the five decades of operation, several refurbishments and modifications the system is reaching end of life. Component failures are increasing, and the Watervliet Arsenal must often manufacture replacement parts because they are not available elsewhere. The existing forge requires a two step procedure to manufacture Extended Range Cannon Artillery (ERCA) length and longer cannons. The Replacement Radial Forge supports manufacture of cannons exceeding the length of current ERCA in a single manufacturing step. The new system applies greater force during forging, allowing the forge to draw and shape a Cannon Preform Billet into a Cannon Rough Shape in less than 80% of the time required by the current system. The new systems incorporates additional automation and machine control to the forging process, producing more conformal rough shapes that reduce the amount of subsequent time and machining steps needed to produce a cannon.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:**
3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Electro-Chemical Machining System for Cannon Rifling **Project Number:** WVA0009 **Project Category:**

End Item Supported Model: Rifled Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	7.000	-	-	-							
C. Equipment Installation Cost	-	3.000	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	10.000	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$10.000 million supports the procurement and installation of an Electro Chemical Machining systems to be used for cannon rifling. Electro Chemical Machining is a highly automated process, using electrically controlled fluid removal of metal to surface finish quality. Electro Chemical Machining is mature commercial manufacturing technology being adapted to improve the accuracy and reduce the time needed to rifle cannon tubes. Electro Chemical Machining uses electrically conductive fluids passing under moderate pressures with easily fabricated anodes to precisely and rapidly remove metal molecules from the inside of the cannon barrel. This systems will be able to rifle ERCA length and specialty steel barrels in less than 2/3 the time required using the current broaching technique. Electro Chemical Machining costs per barrel are projected to be less than half of the current broach method, requiring less time to rifle cannon barrels with greater precision.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Hex-Trivalent Process Verification **Project Number:** WVA0010 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO					
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:					
B. Equipment Cost	-	0.750	-	-	-						
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	-	2.100	-	-	-						
H. Other Costs	-	1.000	-	-	-						
Total Project Cost	-	3.850	-	-	-						
Related Projects											
	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date				

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$3.850 million supports production process verification of the use of Trivalent Chromium plating for cannon bores and cannon minor parts. Trivalent Chromium, a more environment and occupational health safe material is replacing the use of the more hazardous Hexavalent Chromium plating process used for over 5 decades. This project provides materials and effort required to verify plating processes and demonstrate performance of Trivalent Chromium on plated surfaces. This project builds upon other efforts, including the repair of the Watervliet Arsenal chrome plating facility and conversion of the disused commercial plating facility back to Arsenal use. This project introduces and verifies new processes to qualify Trivalent Chromium for cannon bore and minor parts plating.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Rifled WaterJet and Verification **Project Number:** WVA0011 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	0.950	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	4.750	-	-	-							
C. Equipment Installation Cost	-	0.500	-	-	-							
D. Contractor Support Cost	-	0.250	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	2.500	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	1.050	-	-	-							
Total Project Cost	-	10.000	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$10.000 million supports procurement and installation of a complete Waterjet System to be used for the production of Rifled Cannons. The Waterjet is being procured to serve as a combined rifling and surface finishing tool. Waterjet rifling uses high pressure slurry to precisely cut groves into the cannon bore steel. Waterjet surface finishing provides precise material removal to provide required inner diameter dimensions and required surface smoothness. Waterjet finishing is necessary to allow the use of Cold-Spray coatings in rifled cannon barrels. Waterjet rifling introduces a new capability to Watervliet Arsenal (WVA) to replace some traditional cannon production processes and complement other new technologies such as Electro Chemical Machining and Cold-Spray applied coatings.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: ECM Facility Transition (Rifled Tubes) **Project Number:** WVA0012 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO														
A. Construction Cost	-	1.900	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:														
B. Equipment Cost	-	-	-	-	-															
C. Equipment Installation Cost	-	1.600	-	-	-															
D. Contractor Support Cost	-	-	-	-	-															
E. Corps of Engineers Support Cost	-	-	-	-	-															
F. Other In-House Support Cost	-	0.700	-	-	-															
G. Total Facility Project Cost	-	-	-	-	-															
H. Other Costs	-	0.300	-	-	-															
Total Project Cost	-	4.500	-	-	-															
						Related Projects														
						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">Title</th> <th style="width: 10%;">FY & Appn</th> <th style="width: 10%;">Value (\$ M)</th> <th style="width: 10%;">Facing</th> <th style="width: 10%;">Start Date</th> <th style="width: 10%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date														

Narrative Explanation:

There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$4.500 million supports the conversion of the prototype Electro Chemical Machining (ECM) System to production capability for rifled cannon up to Extended Range Cannon Artillery (ERCA) tube length. The Electro Chemical Machining (ECM) System provides precise removal of metal to rifle and finish cannon bores. This system replaces the traditional cannon rifling process that pulls broaches through the tube to cut and finish lands and grooves. Electro Chemical Machining (ECM) reduces mechanical stresses broaching introduces into cannon tubes. Electro Chemical Machining (ECM) will be the primary method to rifle Extended Range Cannon Artillery (ERCA) cannon tubes and is expected to replace broach rifling for large cannon. This machine compliments new capability to Watervliet Arsenal (WVA).

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: ECM Tooling and Profile Verification **Project Number:** WVA0013 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	0.900	-	-	-							
C. Equipment Installation Cost	-	0.300	-	-	-							
D. Contractor Support Cost	-	0.600	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	1.750	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	0.650	-	-	-							
Total Project Cost	-	4.200	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$4.200 million supports production Electro Chemical Machining (ECM) tooling procurement and process verification for 155mm cannon including Extended Range Cannon Artillery (ERCA). This project procures the production required Electro Chemical Machining (ECM) heads, guides, and other cannon specific items needed to perform rifling for M777, M109A7, and XM1299 ERCA cannons. This project verifies that the Electro Chemical Machining (ECM) processes used to rifle each cannon provide required inner diameter, surface finish, and required service performance. This project compliments other cannon production modernization investments at Watervliet Arsenal (WVA).

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Convert disused Hexavalent Chrome plating facility to Trivalent Chrome **Project Number:** WVA0014 **Project Category:**

End Item Supported Model: ERCA and other Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	-	6.500	-	-	-							
H. Other Costs	-	0.500	-	-	-							
Total Project Cost	-	7.000	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$7.000 million supports the conversion of not currently-in-use Chrome plating tanks to operational condition and filling with Trivalent Chrome (CrIL3). This set of plating tanks will be used to qualify Trivalent Chrome for Extended Range Cannon Artillery (ERCA) cannon bore plating at Watervliet Arsenal, NY. This conversion is a risk reduction measure being performed in conjunction with the larger U.S. Army Tank Automotive and Armaments Command (TACOM) sponsored repair of the Watervliet cannon bore Chrome Plating facility. Army directed conversion to Trivalent chrome requires the development of new tooling and plating techniques to achieve equal-to or better-than performance compared to existing Hexavalent Chrome (Cr6). The conversion of these tanks allows full length plating of Extended Range Cannon Artillery (ERCA) length cannon bores with Trivalent chrome while the repaired plating facility continues using Hexavalent Chrome. Multiple cannon tubes will be coated and subjected to live fire and laboratory testing as part of this effort. This plating facility may have future utility in the production of other howitzers, tank cannons, and weapons.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Chrome Tooling (Anodes & Cathodes) **Project Number:** WVA0015 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	0.857	-	-	-							
C. Equipment Installation Cost	-	2.143	-	-	-							
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	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$3.000 million supports procurement and configuration costs to procure new anodes, cathodes, and associated tooling required to chrome plate cannon bores. This equipment is needed to provide optimum plating performance when the Chrome Plating facility is replaced.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Rifled Cold-Spray System (Spindle Lathe, Facilities, System) **Project Number:** WVA0016 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	1.500	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	7.600	-	-	-							
C. Equipment Installation Cost	-	1.680	-	-	-							
D. Contractor Support Cost	-	0.600	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	1.500	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	1.370	-	-	-							
Total Project Cost	-	14.250	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$14.250 million supports procurement and installation of a Cold-Spray production system for use in bore coating rifled cannon. The Cold-Spray system is used to apply a multi-layer coating to the cannon bore in lieu of chromium plating. The coating is more resistant to wear compared to chromium plating, increasing cannon operation life. The Cold-Spray system will support coating of rifled cannons up to Extended Range Cannon Artillery (ERCA) length. This project procures the Cold-Spray System, supporting spindle lathes, and the tooling required to coat the cannon lengths now or planned for production. The projects funds verification of the production coating processes and durability when the cannon is fired. The rifled cannon Cold-Spray system introduces a new capability to Watervliet Arsenal (WVA), complimenting other cannon production modernization projects..

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Anodize Line (Reconstitute in-house process) **Project Number:** WVA0017 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	1.600	-	-	-							
C. Equipment Installation Cost	-	0.400	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	2.000	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$2.000 million supports the procurement and installation of Anodization equipment at Watervliet Arsenal (WVA) New York. This system will allow the Arsenal to anodize metal parts to provide corrosion and wear resistance. Bringing this capability into WVA will increase cannon production rates by eliminating the delays caused by long lead times at outside vendors.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30	P-1 Line Item Number / Title: 3270GC0050 / Production Base Support (WOCV-WTCV)
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Project Title: Cannon Production High Voltage Substation Modernization	Project Number: WVA0018	Project Category:
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End Item Supported Model: ERCA and other Cannon Production	Annual Capacity Before / After (1-8-5): /
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Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO														
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: <div align="center">Related Projects</div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">Title</th> <th style="width: 10%;">FY & Appn</th> <th style="width: 10%;">Value <i>(\$ M)</i></th> <th style="width: 10%;">Facing</th> <th style="width: 10%;">Start Date</th> <th style="width: 10%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date		Compl Date													
B. Equipment Cost	-	2.000	-	-	-															
C. Equipment Installation Cost	-	0.800	-	-	-															
D. Contractor Support Cost	-	-	-	-	-															
E. Corps of Engineers Support Cost	-	-	-	-	-															
F. Other In-House Support Cost	-	-	-	-	-															
G. Total Facility Project Cost	-	-	-	-	-															
H. Other Costs	-	0.200	-	-	-															
Total Project Cost	-	3.000	-	-	-															

Narrative Explanation:
 This is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$3.000 million supports the procurement and installation of a High Voltage Substation system to convert electric grid power for cannon production at Watervliet Arsenal, NY. This system replaces obsolete equipment with more automated and reliable power conversion to support cannon production. The new substation will provide more reliable and consistent power conversion needed by modern production equipment being procured and installed. This system is scaled to support production of current and planned extended range artillery cannons, howitzers, tank cannons, and other weapons.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Inspection Gauges - XM35 **Project Number:** WVA0019 **Project Category:**

End Item Supported Model: XM35 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	1.500	-	-	-							
C. Equipment Installation Cost	-	0.250	-	-	-							
D. Contractor Support Cost	-	0.250	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	2.000	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$2.000 million supports the inspection gauges for XM35 components. The equipment replaces obsolete equipment and supports newer metrology technologies.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Cannon Billet Pre-Heat Induction Furnace System **Project Number:** WVA0020 **Project Category:**

End Item Supported Model: ERCA and other Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO					
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:					
B. Equipment Cost	-	4.500	-	-	-						
C. Equipment Installation Cost	-	2.250	-	-	-						
D. Contractor Support Cost	-	-	-	-	-						
E. Corps of Engineers Support Cost	-	-	-	-	-						
F. Other In-House Support Cost	-	-	-	-	-						
G. Total Facility Project Cost	-	-	-	-	-						
H. Other Costs	-	0.250	-	-	-						
Total Project Cost	-	7.000	-	-	-						
Related Projects											
	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date				

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$7.000 million supports the procurement and installation of a set of 5 automated Electric Induction Furnaces to pre-heat cannon steel billets prior to shaping in the Radial Forge. This set of furnaces will replace the natural gas powered furnace currently in use at Watervliet Arsenal, NY. These Induction Furnaces will reduce energy demand and waste heat generated during cannon billet preheating and reduce combustion gas emissions on the arsenal. The furnaces will more rapidly heat the billets and reduce exposure to contaminants, better preserving the material properties of the Extended Range Cannon Artillery (ERCA) cannon steel. The induction furnaces will be used in the production of other howitzers, tank cannons, and weapons.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Guided Bore System for ERCA Length Cannon **Project Number:** WVA0021 **Project Category:**

End Item Supported Model: ERCA and other Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	1.000	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	7.700	-	-	-							
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	-	0.300	-	-	-							
Total Project Cost	-	10.000	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$10.000 million supports the procurement an automated guided bore cutting system scaled to support Extended Range Cannon Artillery (ERCA) length cannon production at Watervliet Arsenal, NY. This equipment is required to precisely machine the inner bore of the cannon prior to rifling and coating. This system is scaled to support production of the ERCA cannons. The system may have utility in the production of other howitzers, tank cannons, and weapons.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: External Cylindrical Grinder **Project Number:** WVA0022 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	2.720	-	-	-							
C. Equipment Installation Cost	-	0.680	-	-	-							
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	-	3.400	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$3.400 million supports the procurement and installation of an automated external cylindrical grinder with sufficient bed length to rough and finish the outside surfaces of cannons and other large cylindrical parts. This automated system supports production of longer cannon tubes in production and development, replacing obsolete and less capable equipment.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30	P-1 Line Item Number / Title: 3270GC0050 / Production Base Support (WOCV-WTCV)
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Project Title: Overhead Cannon Transport Crane Modernization (Buildings 20, 35, 220, and 135)	Project Number: WVA0023	Project Category:
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End Item Supported Model: ERCA and other Cannon Production	Annual Capacity Before / After (1-8-5): /
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Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO							
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:							
B. Equipment Cost	-	10.000	-	-	-								
C. Equipment Installation Cost	-	5.000	-	-	-								
D. Contractor Support Cost	-	2.000	-	-	-								
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	-	-	-								
							Related Projects						
							Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$17.000 million supports the procurement and installation of modern control systems in overhead cranes in buildings 20, 35, 110, and 135, which are used in cannon production at Watervliet Arsenal, NY. The new control equipment is required to provide higher reliability in crane operation and to improve precision in positioning of overhead cranes used to transport cannons through the production lines. Improved crane operation will have utility in the production of other howitzers, tank cannons, and weapons.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: ERCA Vertical Turning Lathe Set (Breech Manufacture) **Project Number:** WVA0024 **Project Category:**

End Item Supported Model: ERCA and other Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	4.600	-	-	-							
C. Equipment Installation Cost	-	1.800	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	0.400	-	-	-							
Total Project Cost	-	6.800	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$6.800 million supports the procurement and installation of a modern Vertical Turning Lathe Set to be used for Extended Range Cannon Artillery (ERCA) cannon production at Watervliet Arsenal, NY. This equipment is required to perform ERCA cannon breech and other machining tasks that cannot be performed on 5 axis milling centers. This set is scaled to support production for current and planned extended range artillery cannons, howitzers, tank cannons, and other weapons.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Cannon Production Compressed Air Distribution Modernization **Project Number:** WVA0025 **Project Category:**

End Item Supported Model: ERCA and other Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	1.500	-	-	-							
C. Equipment Installation Cost	-	3.500	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	5.000	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$5.000 million supports the procurement and installation of a modern compressed air distribution system used for cannon production at Watervliet Arsenal, NY. This equipment replaces obsolete equipment with modern and more highly automated distribution of compressed air used for equipment operation, cleaning, and other purposes. This compressed air system is scaled to support production for current and planned extended range artillery cannons, howitzers, tank cannons, and other weapons.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Cannon Production High Voltage Power Distribution Modernization **Project Number:** WVA0026 **Project Category:**

End Item Supported Model: ERCA and other Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	7.000	-	-	-							
C. Equipment Installation Cost	-	3.000	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	10.000	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$10.000 million supports the procurement and installation of high voltage power distribution lines for cannon production manufacturing systems at Watervliet Arsenal, NY. This high voltage power distribution network replaces obsolete equipment to provide power required by manufacturing systems being installed to modernize cannon production. This power distribution network is scaled to support production of current and planned extended range artillery cannons, howitzers, tank cannons, and other weapons.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: WVA Miscellaneous Small Projects **Project Number:** WVA0027 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO					
A. Construction Cost	-	0.050	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:					
B. Equipment Cost	-	1.490	-	-	-						
C. Equipment Installation Cost	-	0.120	-	-	-						
D. Contractor Support Cost	-	-	0.950	-	0.950						
E. Corps of Engineers Support Cost	-	-	-	-	-						
F. Other In-House Support Cost	-	0.220	-	-	-						
G. Total Facility Project Cost	-	-	-	-	-						
H. Other Costs	-	2.388	1.730	-	1.730						
Total Project Cost	-	4.268	2.680	-	2.680						
Related Projects											
	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date				

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$2.480 million support the Production Process and Industrial Base by focusing on maintaining, improving, optimizing, and modernizing the manufacturing facilities located at Watervliet Arsenal (WVA), New York. These projects include but are not limited to: Engineering Design for FY 2025 PBS projects and project support contracts.

FY 2024 Base procurement dollars in the amount of \$0.200 million also support Self Propelled Howitzer System Portable RT Imaging Equipment: Procurement, setup, and training for portable 200 kilovolt (kV) X-ray Imaging equipment to support ongoing Extended Range Cannon Artillery Cab manufacturing efforts.

FY 2023 Base procurement dollars in the amount of \$4.268 million supported miscellaneous small projects at Watervliet Arsenal (WVA) which to included but were not limited to:
 -FY 2023 Procurement of a small pit-type tempering furnace for use in treatment of small parts up to cannon breech and breech blocks.
 -FY 2023 Procurement of an automated slant bed lathe scaled to fit up to ERCA length cannon.
 -FY 2023 Procurement of a more efficient heat treatment furnace used to produce piece parts.
 -FY 2023 Procurement of a more efficient endothermic generator to be used with the minor heat treatment furnace.
 -FY 2023 Procurement of routine small projects to support facility modernization and overall facility improvements.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Horizontal Milling Center **Project Number:** WVA0035 **Project Category:**

End Item Supported Model: Majors/Minors **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	0.500	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	0.450	-	-	-							
C. Equipment Installation Cost	-	0.050	-	-	-							
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	-	1.000	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$1.000 million supports the procurement and installation of horizontal milling center. The machine replaces antiquated, worn equipment with modern, reliable machinery with increase capacity.

UNCLASSIFIED

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Excess Equipment, Floor Repairs, Relocate Equipment **Project Number:** WVA0037 **Project Category:**

End Item Supported Model: Excess Equipment, Floor Repairs, Relocate Equipment **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	0.100	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	0.020	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	0.851	-	-	-							
Total Project Cost	-	0.971	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$0.971 million supports the removal of excess equipment, floor repairs and relocating beneficial Watervliet Arsenal (WVA) equipment. It is necessary to remove obsolete equipment by making room and prepping locations for new equipment arriving at WVA.

UNCLASSIFIED

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Filament Winder 1/2 (120mm Bore Evacuator) **Project Number:** WVA0038 **Project Category:**

End Item Supported Model: Bore Evacuators **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	0.850	-	-	-							
C. Equipment Installation Cost	-	0.100	-	-	-							
D. Contractor Support Cost	-	0.050	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	1.000	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$1.000 million supports the replacement of filament winders used for M120 bore evacuators. This system replaces obsolete equipment and will prevent single point of failures in the manufacturing process.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Filament Winder 2/2 (120mm Bore Evacuator) **Project Number:** WVA0039 **Project Category:**

End Item Supported Model: Bore Evacuators **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	0.850	-	-	-							
C. Equipment Installation Cost	-	0.100	-	-	-							
D. Contractor Support Cost	-	0.050	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	1.000	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$1.000 million supports the replacement of filament winders used for M120 bore evacuators. This system replaces obsolete equipment and will prevent single point of failures in the manufacturing process

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: 2nd M256 Cold Spray System **Project Number:** WVA0040 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	0.900	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	3.000	-	-	-							
C. Equipment Installation Cost	-	0.200	-	-	-							
D. Contractor Support Cost	-	0.100	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	0.200	-	-	-							
Total Project Cost	-	4.400	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$4.400 million supports procurement and installation of second cold spray system to eliminate a single point of failure and increase capacity for the cold spray technology currently being developed. This machine introduces additional capability for Watervliet Arsenal (WVA) and supports an alternate technology to chrome.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: ID Grinder 1/2 **Project Number:** WVA0041 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO				
A. Construction Cost	-	0.750	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:				
B. Equipment Cost	-	1.250	-	-	-					
C. Equipment Installation Cost	-	0.050	-	-	-					
D. Contractor Support Cost	-	0.050	-	-	-					
E. Corps of Engineers Support Cost	-	-	-	-	-					
F. Other In-House Support Cost	-	-	-	-	-					
G. Total Facility Project Cost	-	-	-	-	-					
H. Other Costs	-	0.750	-	-	-					
Total Project Cost	-	2.850	-	-	-					
Related Projects										
	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date			

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$2.850 million supports procurement and installation of ID Grinder to eliminate a single point of failure and increase capacity for the cold spray technology currently being developed. This machine introduces additional capability for Watervliet Arsenal (WVA) and supports an alternate technology to chrome.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: ID Grinder 2/2 **Project Number:** WVA0042 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	0.750	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	1.250	-	-	-							
C. Equipment Installation Cost	-	0.050	-	-	-							
D. Contractor Support Cost	-	0.050	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	0.750	-	-	-							
Total Project Cost	-	2.850	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$2.850 million supports procurement and installation of ID Grinder to eliminate a single point of failure and increase capacity for the cold spray technology currently being developed. This machine introduces additional capability for Watervliet Arsenal (WVA) and supports an alternate technology to chrome.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Hone 1/2 **Project Number:** WVA0043 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	0.700	-	-	-							
C. Equipment Installation Cost	-	0.150	-	-	-							
D. Contractor Support Cost	-	0.050	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	0.900	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$0.900 million supports procurement and installation of Hone to eliminate a single point of failure and increase capacity for the cold spray technology currently being developed. This machine introduces additional capability for Watervliet Arsenal (WVA) and supports an alternate technology to chrome.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Hone 2/2 **Project Number:** WVA0044 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	0.700	-	-	-							
C. Equipment Installation Cost	-	0.150	-	-	-							
D. Contractor Support Cost	-	0.050	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	0.900	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$0.900 million supports procurement and installation of Hone to eliminate a single point of failure and increase capacity for the cold spray technology currently being developed. This machine introduces additional capability for Watervliet Arsenal (WVA) and supports an alternate technology to chrome.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: M256 Waterjet **Project Number:** WVA0045 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	1.000	1.000	-	1.000	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	2.000	3.000	-	3.000							
C. Equipment Installation Cost	-	0.100	0.100	-	0.100							
D. Contractor Support Cost	-	0.100	0.100	-	0.100							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	3.200	4.200	-	4.200	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$4.200 million supports the procurement and installation of a second Waterjet System to support cannon production located at Watervliet Arsenal (WVA), New York. The Waterjet is used to clean cannon bores and as a surface finishing tool. Advanced materials have proven to offer an alternative to the use hexavalent chromium in the Organic Industrial Base. Waterjet System attributes: Ability to remove deposited materials in the event of defect during manufacturing. Decreases honing and grinding operations and increases production capacity. This machine introduces a new capability and expands current manufacturing options at WVA.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: M256 Waterjet Foundation **Project Number:** WVA0046 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO														
A. Construction Cost	-	1.000	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:														
B. Equipment Cost	-	-	-	-	-															
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	-	1.000	-	-	-															
						Related Projects														
						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">Title</th> <th style="width: 15%;">FY & Appn</th> <th style="width: 10%;">Value (\$ M)</th> <th style="width: 10%;">Facing</th> <th style="width: 10%;">Start Date</th> <th style="width: 15%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date														

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$1.000 million supports procurement and installation of a second Waterjet System foundation to support cold spray production. The Waterjet is used to clean coatings from cannon bores and as a surface finishing tool. The Tantalum cold spray system uses hypersonic velocity air jets to deposit Tantalum onto the cannon bore. Tantalum has proven to be more erosion resistant than Chrome to protect and extend the life of cannon barrels. Waterjet System attributes: Stripping process of Tantalum (cold spray) in the event there is an issue with coating. Decreases honing and grinding operations and increases production capacity. This machine introduces a new capability to Watervliet Arsenal (WVA).

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Gymnasticator **Project Number:** WVA0047 **Project Category:**

End Item Supported Model: M12 Breech Block, Breech Mechanism **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	1.500	-	-	-							
C. Equipment Installation Cost	-	0.150	-	-	-							
D. Contractor Support Cost	-	0.150	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	0.400	-	-	-							
Total Project Cost	-	2.200	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$2.200 million supports the ability to test M12 Breech Block, Breech Mechanism components in-house rather than having to send them to another facility. The system allows Watervliet Arsenal (WVA) to have this portion of the manufacturing process kept in-house to allow for faster and more efficient manufacturing durations.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Horizontal Machining Center **Project Number:** WVA0049 **Project Category:**

End Item Supported Model: Cannon Production **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	0.800	-	-	-							
C. Equipment Installation Cost	-	0.200	-	-	-							
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	-	1.000	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

 FY 2023 Base procurement dollars in the amount of \$1.000 million supports the procurement and installation of an automated Horizontal Machining Center, used to produce cannon piece parts. This systems replaces obsolete equipment.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Hollow Spindle Lathe **Project Number:** WVA0050 **Project Category:**

End Item Supported Model: Rifled Cannons **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	-	6.000	-	-	-							
Total Project Cost	-	6.000	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2023 Base procurement dollars in the amount of \$6.000 million procures two spindle lathes. The hollow spindle lathe will support up to Extended Range Cannon Artillery (ERCA)-Length cannon, at one existing location and one new location in the factory, specifically for a guided bore system.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Two (2) Surface Grinders **Project Number:** WVA0051 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO																									
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th align="center" colspan="6">Related Projects</th> </tr> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">Title</th> <th style="width: 10%;">FY & Appn</th> <th style="width: 10%;">Value <i>(\$ M)</i></th> <th style="width: 10%;">Facing</th> <th style="width: 10%;">Start Date</th> <th style="width: 10%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>					Related Projects						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date							
Related Projects																															
Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date							Compl Date																			
B. Equipment Cost	-	-	2.800	-	2.800																										
C. Equipment Installation Cost	-	-	0.300	-	0.300																										
D. Contractor Support Cost	-	-	0.100	-	0.100																										
E. Corps of Engineers Support Cost	-	-	-	-	-																										
F. Other In-House Support Cost	-	-	-	-	-																										
G. Total Facility Project Cost	-	-	-	-	-																										
H. Other Costs	-	-	-	-	-																										
Total Project Cost	-	-	3.200	-	3.200																										

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$3.200 million supports the procurement of two (2) surface grinders, which are a major component manufacturing of breech mechanism components located at Watervliet Arsenal (WVA), New York. Surface grinding is a required process for breech rings and breech blocks.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Tube Runout Table **Project Number:** WVA0052 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	1.000	-	1.000							
D. Contractor Support Cost	-	-	0.150	-	0.150							
E. Corps of Engineers Support Cost	-	-	0.050	-	0.050							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	-	1.200	-	1.200	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

FY 2024 Base procurement dollars in the amount of \$1.200 million supports the procurement for a cannon tube runout table. This is required to measure Total Indicator Runout (TIR) on M256 cannon tubes throughout its manufacturing process located at Watervliet Arsenal (WVA), New York. The process is both a drawing and Quality Assurance Plan (QAP) requirement.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Wire Electric Discharge Machine **Project Number:** WVA0053 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO														
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete: <div align="center">Related Projects</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">Title</th> <th style="width: 10%;">FY & Appn</th> <th style="width: 10%;">Value <i>(\$ M)</i></th> <th style="width: 10%;">Facing</th> <th style="width: 10%;">Start Date</th> <th style="width: 10%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date		Compl Date													
B. Equipment Cost	-	-	-	-	-															
C. Equipment Installation Cost	-	-	1.200	-	1.200															
D. Contractor Support Cost	-	-	0.150	-	0.150															
E. Corps of Engineers Support Cost	-	-	0.050	-	0.050															
F. Other In-House Support Cost	-	-	-	-	-															
G. Total Facility Project Cost	-	-	-	-	-															
H. Other Costs	-	-	-	-	-															
Total Project Cost	-	-	1.400	-	1.400															

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$1.400 million supports the procurement and installation of a Wire Electric Discharge Machine (EDM) that is a required process to support minor component manufacturing of the M256 Block Crank and the M256 operating crank located at Watervliet Arsenal (WVA), New York. This automated system will be used to make precise and complex geometry cutting of metal sheets, plates, and blocks to support production of cannon systems. The EDM can replace very costly and time-consuming broaching operations and will support processing modernization as well as reducing operating costs and Takt times. Takt time is a calculation of the available production time divided by customer demand.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Quality Control Inspection Equipment **Project Number:** WVA0054 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO				
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:				
B. Equipment Cost	-	-	-	-	-					
C. Equipment Installation Cost	-	-	5.100	-	5.100					
D. Contractor Support Cost	-	-	0.200	-	0.200					
E. Corps of Engineers Support Cost	-	-	0.100	-	0.100					
F. Other In-House Support Cost	-	-	-	-	-					
G. Total Facility Project Cost	-	-	-	-	-					
H. Other Costs	-	-	-	-	-					
Total Project Cost	-	-	5.400	-	5.400					
Related Projects										
	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date			

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$5.400 million supports equipment that will be used to support modernization of quality control functions by implementing the digitalization of data gathering to implement Statistical Process Control (SPC) located at Watervliet Arsenal (WVA), New York. Equipment will also be used to mitigate single points of failures as well as support increased workload.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Tri-Chrome Conversion **Project Number:** WVA0055 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	-	-	9.400	-	9.400							
Total Project Cost	-	-	9.400	-	9.400	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

FY 2024 Base procurement dollars in the amount of \$9.400 million supports the procurement and installation of the conversion from hexavalent chromium plating to trivalent chromium plating located at Watervliet Arsenal (WVA), New York. This project is primarily focused on inner diameter bore coatings for large caliber weapons systems, which provide wear and erosion protection from the thermal, chemical, and mechanical impacts of a projectile. Tri Chrome attributes: Removes the dependence on hexavalent chromium for bore coatings. Newly renovated chrome plating facility will readily accept this new process. Process efficiencies have high potential to increase production capacity. This process introduces a new capability and expands current manufacturing options at WVA.

This is a new start project in FY 2024.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:**
3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Cannon Preform Advanced Material Purchase **Project Number:** WVA0056 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	-	-	1.200	-	1.200							
Total Project Cost	-	-	1.200	-	1.200	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$1.200 million supports the Preform Advanced Material Purchase plating located at Watervliet Arsenal (WVA), New York. This pre-positions critical long lead castings and forgings to increase flexibility in US requirements and supply chain disruptions. Purchase of Howitzer cannon sub-components to prove out new manufacturing capability investments at Watervliet arsenal from other (multiple) Production Base Support (PBS) investments.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Minor Plating Reconstitution **Project Number:** WVA0057 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Watervliet Arsenal (WVA) Facility Location: Watervliet, NY Facility Type (GOGO, GOCO, COCO): GOGO							
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	Related Projects						
B. Equipment Cost	-	-	2.000	-	2.000		Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date
C. Equipment Installation Cost	-	-	2.000	-	2.000								
D. Contractor Support Cost	-	-	-	-	-								
E. Corps of Engineers Support Cost	-	-	-	-	-								
F. Other In-House Support Cost	-	-	-	-	-								
G. Total Facility Project Cost	-	-	-	-	-								
H. Other Costs	-	-	-	-	-								
Total Project Cost	-	-	4.000	-	4.000								

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$4.000 million conduct a study for renovating the minor plating line (aka anodization which is the process used for chrome plating). Minors refers to smaller parts as opposed to the cannon tube plating line). This includes new anodization equipment as well as upgrades to infrastructure like the subterranean piping for flow of chemicals involved in the process. This system will allow the Arsenal to anodize metal parts to provide corrosion and wear resistance. Bringing this capability into WVA will increase cannon production rates by eliminating the delays caused by long lead times at outside vendors.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: JSMC Miscellaneous Small Projects **Project Number:** JSMC001 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO							
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:							
B. Equipment Cost	7.485	-	4.517	-	4.517								
C. Equipment Installation Cost	-	-	4.618	-	4.618								
D. Contractor Support Cost	-	-	-	-	-								
E. Corps of Engineers Support Cost	-	-	-	-	-								
F. Other In-House Support Cost	-	-	-	-	-								
G. Total Facility Project Cost	-	-	-	-	-								
H. Other Costs	-	-	7.128	-	7.128								
Total Project Cost	7.485	-	16.263	-	16.263								
							Related Projects						
							Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars estimated in the amount of \$16.263 million support the Abrams Tank Production Process and Abrams Industrial Base by focusing on maintaining improving, optimizing, and modernizing the manufacturing facilities located at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. These small projects include, but are not limited to: rehabilitation and modernization of office spaces in various buildings on the property; perimeter fence clearing, zone spraying, and dead tree cutting; refurbishing and modernizing bridge ports and the manufacturing center; replacing, modernizing, and updating equipment (i.e., bump course controls, air conditioners, heat recovery units, steam & condensate lines, forklifts, concrete, cranes, etc.) that are past their useful life and/or have been in service for over 20 years.

No JSMC Miscellaneous Small Project funding was requested in FY 2023. This was due to available funding levels within the Production Base Support line and FY 2023 priority requirements supporting the Extended Range Cannon Artillery production base at Watervliet Arsenal supporting and the Army's modernization priorities.

FY 2024 funding request supports JSMC projects that were deferred from FY 2023 to FY 2024 as well as projects originally planned for execution in FY 2024 (approximately \$7-8 million per year).

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Remove TM004 and Install New Machine at TM005 Location **Project Number:** JSMC008 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	6.500	-	-	-	-	Related Projects						
Total Project Cost	6.500	-	-	-	-							
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$6.500 million support the purchase of a modernized medium sized Horizontal Boring Mill (HBM) with rotary table at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. The TM004, which was installed in 1982, is currently at the end of its useful life and parts/components are becoming obsolete. This modernized equipment will replace the existing system and provide increased capability and automation.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army	Date: March 2023
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Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30	P-1 Line Item Number / Title: 3270GC0050 / Production Base Support (WOCV-WTCV)
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Project Title: Replace CE92 & CE96 Vertical Machining Centers (VMCs)	Project Number: JSMC009	Project Category:
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End Item Supported Model:	Annual Capacity Before / After (1-8-5): /
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Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO	
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	
B. Equipment Cost	-	-	-	-	-		
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	2.500	-	-	-	-		
Total Project Cost	2.500	-	-	-	-		
Related Projects							
	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement funds in the amount of \$2.500 million support the replacement of the existing Vertical Machining Centers (VMCs) with modernized systems which are more reliable, automated and have more capabilities at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. The current VMCs are 15 - 20 years old and are experiencing high repair and maintenance costs.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Remove TR76 and TR77 and Replace with (1) Vertical Machining Center (VMC) **Project Number:** JSMC010 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	1.750	-	-	-	-							
Total Project Cost	1.750	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$1.750 million support the removal and replacement of two Virtual Machining Centers (VMC) that are 22 and 25 years old and at the end of their useful life. The old VMCs experience excessive downtime, require continual repair, and have incurred high maintenance costs. The new modernized Vertical Machining Center (VMC) will be more efficient and will provide improved capabilities.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Replace SB13 with Robotic Blast Booth **Project Number:** JSMC011 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	5.500	-	-	-	-							
Total Project Cost	5.500	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$5.500 million support the purchase and installation of an automated robotic blast system to replace the existing manual blast system. The current equipment, installed in 2007, is near the end of its useful life and has become severely worn due to the nature of the blasting environment.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: RFID Asset Tracking **Project Number:** JSMC012 **Project Category:**

End Item Supported Model: Multiple Systems **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	1.653	-	-	-	-							
Total Project Cost	1.653	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$1.653 million supports the design and procurement of a Radio Frequency Identification (RFID) Asset Tracking system to needed to modernize the tool room infrastructure. This automated RFID tracking system is required to ensure accountability of United States Government (USG) assets throughout the Joint Systems Manufacturing Center (JSMC) - Lima, OH.

UNCLASSIFIED

Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Robotic Machine Tending Systems **Project Number:** JSMC013 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	1.000	-	-	-	-							
Total Project Cost	1.000	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount \$1.000 million support the purchase of an automated Robotic Machine Tending System for load/unload of component machining centers. The use of Collaborative Robots (Cobots) increase safety and reduce injury; increase output and accuracy; and are able to operate in harsh environments.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30	P-1 Line Item Number / Title: 3270GC0050 / Production Base Support (WOCV-WTCV)
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Project Title: Repair/Refurbish/Replace Locomotive(s)	Project Number: JSMC014	Project Category:
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End Item Supported Model: Abrams	Annual Capacity Before / After (1-8-5): /
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Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO					
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:					
B. Equipment Cost	-	-	-	-	-						
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	2.381	-	-	-	-						
Total Project Cost	2.381	-	-	-	-						
Related Projects											
	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date				

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$2.381 million support the repair, refurbishment or replacement of aging locomotives at Joint Systems Manufacturing Center (JSMC) - Lima, OH. Locomotives are used extensively to push and rearrange transport cars within the JSMC rail yard to facilitate the unloading/loading of tanks. The typical lifespan of a locomotive is 25 to 30 years and the average age of locomotives in service at JSMC is 32 years.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Autonomous Material Handling **Project Number:** JSMC015 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$2.000 million support the design of space, facilities and installation of required infrastructure to support autonomous material handling and remote monitoring of automated equipment at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. Autonomous material handling systems are not only more efficient, they provide increased safety, as well as, assist in providing for a cleaner environment by reducing the amount of fossil fuels used for repetitive material moves throughout the facility.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Build 351 - Rehab South End Office Complex **Project Number:** JSMC016 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$2.000 million support modernization of the breakroom and the upstairs locker room area at the Joint Systems Manufacturing Center (JSMC) - Lima, OH and will provide design space and facilities for remote monitoring of automated equipment.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Water Tower Piping Renovation **Project Number:** JSMC017 **Project Category:**

End Item Supported Model: JSMC Installation **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	7.540	-	-	-	-							
Total Project Cost	7.540	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$7.540 million support the required renovation and upgrade of the Water Tower Piping at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. The piping around the water tower is part of the underground utilities infrastructure designed and installed decades ago. Failure repairs have increased over the past several years and the piping has reached its expected service life.

Following an inspection completed at the end of 2020, multiple items were identified to be in need of repair or replacement. This project includes but is not limited to the underground piping around the water tower plant and northeast side of Building 147; the renovation of the water piping from the water tower to the new fire pumps and fire protection system in Building 66; new fire protection piping to Building 73 (Administration/Government Offices) and approximately 30% of Building 147 (Main Production) to include areas on the west side on Building 147 where sanitary sewer and storm drains connected, which is an Environmental Protection Agency (EPA) violation.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Replace Arch Beam Cranes - Safety Recall **Project Number:** JSMC018 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	4.121	-	-	-	-							
Total Project Cost	4.121	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$4.121 million supports replacement of arch beam cranes at Joint Systems Manufacturing Center (JSMC) - Lima, OH. This type of crane has not been manufactured since 1962. A safety recall has been issued for these cranes, replacement parts are no longer available and the design is no longer recommended for use in "any type" of application. The welds weaken with time and could result in Martensitic Failure resulting in the bottom rail peeling away from the web plate and the potential for catastrophic load drop failure and the potential for fatal consequences.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Building 281 Replace Drag Line **Project Number:** JSMC020 **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	1.102	-	-	-	-							
Total Project Cost	1.102	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$1.102 million support the replacement of the Drag Line in Building 281 at Joint Systems Manufacturing Center (JSMC) - Lima, OH. The Drag Line in Building 281 has had numerous repairs through the years. The inner-workings (chains, gears, etc.) are worn out, at the end of life, and need to be replaced.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Replace Cooling Tower in Power House **Project Number:** JSMC021 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	1.160	-	-	-	-							
Total Project Cost	1.160	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base funding in the amount of \$1.160 million supports the replacement of the cooling tower in the power house located at Joint Systems Manufacturing Center (JSMC) - Lima, OH. The galvanized steel in the cooling tower is deteriorating beyond repair and the parts required to keep the equipment sustainable are obsolete and difficult to procure.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Rehabilitate Hardstand Pavement **Project Number:** JSMC022 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	-	-	1.061	-	1.061							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	-	1.061	-	1.061	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars estimated in the amount of \$1.061 million support the replacement of large portions of the hardstand located at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. This is used for the delivery and shipment of material throughout the facility at JSMC. The pavement is past its useful life and has increasing repair costs. This project will allow new pavement which will be designed to handle the new weight of the vehicles being operated.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: B147 Replace Drag Line **Project Number:** JSMC023 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	1.000	-	1.000							
C. Equipment Installation Cost	-	-	0.180	-	0.180							
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	-	-	1.180	-	1.180							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$1.180 million supports the replacement of the drag line in building 147 (B147) which is responsible for moving the assembly line during production located at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. It is at the end of its useful life and is showing signs of failure. The drag line uses two large and equally long chains that drag a bar that pulls the tanks, hulls, turrets, etc. through multiple stations on the assembly line during the production process. The chains throughout this process have come out of alignment and have become increasingly difficult to move forward during production. This replacement will allow for reduced downtime and updated capacity to effectively move structures down the assembly line efficiently at JSMC.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Replace Fire Sprinkler System Components **Project Number:** JSMC024 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	3.609	-	3.609							
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	-	-	3.609	-	3.609	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

FY 2024 Base procurement dollars estimated in the amount of \$3.609 million supports the procurement and installation of 50-year-old fire sprinkler components located at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. Majority of the fire sprinkler systems on site are over 50 years in age which is causing increasing failures throughout the facility. This project will decrease leaks, potential failure, and allow for minimal production impacts. This replacement will allow for systems to be updated when the replacement is completed.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Structural Repair of B142 **Project Number:** JSMC025 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	1.300	-	1.300	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	0.485	-	0.485							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	-	1.785	-	1.785	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars estimated in the amount of \$1.785 million supports the design and construction of many structural and masonry issues with building 142 (B142) located at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. Some issues are not structural in nature, but they allow the outside elements into the building. An outside engineering firm was brought on site to review the conditions of B142. This building needs to have some structural repairs done. These include the six (6) main areas which will bring the existing building up to be structurally safe and allow for continual operation. This building provides all compressed air and steam for the plant which directly supports main production buildings at JSMC.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: 480V Substation Work **Project Number:** JSMC026 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	1.600	-	1.600							
C. Equipment Installation Cost	-	-	0.217	-	0.217							
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	-	-	1.817	-	1.817	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars estimated in the amount of \$1.817 million support the replacement of 480-volt substation located at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. This project will allow for clean uninterrupted power to the production process. While completing this replacement, it will reduce safety hazards by reducing the plant arc flash rating on the affected power distribution equipment.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Upgrade Cranes CO0112 and CO0431 Turret Line Station 0 **Project Number:** JSMC027 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	Related Projects					
B. Equipment Cost	-	-	1.090	-	1.090							
C. Equipment Installation Cost	-	-	0.760	-	0.760							
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	-	-	1.850	-	1.850							
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars estimated in the amount of \$1.850 million supports the removal of obsolete equipment and the installation of new cranes CO0112 and CO0431, used at Turret Line Station 0 located at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. This will reduce the amount of downtime to assembly tasks at this station because of the age of existing equipment.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Replacement of Government Owned Mobile Equipment (Forklifts, Walk behind, Pallet Jack) **Project Number:** JSMC028 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	1.500	-	1.500							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	-	1.500	-	1.500							
											Related Projects	
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars estimated in the amount of \$1.500 million support the replacement of government owned mobile equipment on site that directly supports production located at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. The equipment is the primary way that all material is delivered to the line during production activities. The equipment is at the end of its useful life and is requiring increased maintenance costs and obsolescence.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: B147 Shaw Box Overhead Cranes **Project Number:** JSMC030 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO							
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	Related Projects						
B. Equipment Cost	-	-	3.200	-	3.200		Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date
C. Equipment Installation Cost	-	-	1.800	-	1.800								
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	-	5.000								

Narrative Explanation:
 FY 2024 Base procurement dollars estimated in the amount of \$5.000 million supports the required replacement of large shaw box cranes located at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. The cranes serve as the primary way of moving material during the production process throughout the facility. The replacement and modernization of these cranes allow us to avoid increasing maintenance cost along with allowing for us to correct safety concerns with the cranes during inspections.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Building 351 Outside Utilities Replacement **Project Number:** JSMC031 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	-	-	6.857	-	6.857							
Total Project Cost	-	-	6.857	-	6.857							
											Related Projects	
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars estimated in the amount of \$6.857 million support the required renovation and upgrade of Building 351 outside utilities replacement at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. The piping around the production building is part of the underground utility infrastructure designed and installed decades ago. Which includes several various utilities used for production and site operations. Failure repairs have increased over the past several years and the piping has reached its expected service life. The increase in failures has caused production impacts and decreased production efficiency.

This project is a new start in FY 2024.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Replace (2) Turret Machines (TM) TM006/TM007 **Project Number:** JSMC032 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	5.200	-	5.200							
D. Contractor Support Cost	-	-	2.709	-	2.709							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	-	7.909	-	7.909							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:

FY 2024 Base procurement dollars estimated in the amount of \$7.909 million supports the removal of obsolete equipment and the procurement and installation of turret machining equipment on the production line located at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. This project will also make improvements to the workspace required to install the new equipment. This equipment provides large machining capability which will be instrumental in modernizing the machining capability while reducing downtime during current production.

This project is a new start in FY 2024.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Building 147 South Side Underground Infrastructure Improvement **Project Number:** JSMC033 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	8.570	-	8.570							
Total Project Cost	-	-	8.570	-	8.570	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars estimated in the amount of \$8.570 million support the required renovation and upgrade of Building 147 (B147) south side underground infrastructure improvements at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. The piping around the south side of B147 is part of the underground utilities infrastructure designed and installed decades ago. Which includes several various utilities used for production and site operations. Failure repairs have increased over the past several years and the piping has reached its expected service life. The increase in failures has caused production impacts and decreased production efficiency.

This project is a new start in FY 2024.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Electronic Fabrication & Assembly Inspection **Project Number:** JSMC035 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	0.952	-	0.952							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	-	0.952	-	0.952							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars estimated in the amount of \$0.952 million support the project to take existing manual fabrication and assembly inspections paper processes throughout the Joint Systems Manufacturing Center (JSMC) and transform electronically recorded information into one (1) central software. This migration from manual process to electronically recorded process with a final inspection is a planned reduction of 3-4% of standard operating efficiency. The project will allow for in-process asset tracking to improve quality and accountability which will modernize the facilities flexibility and capability for future army plans.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Electronic Final Inspection Records **Project Number:** JSMC036 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	0.976	-	0.976							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	-	0.976	-	0.976	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

FY 2024 Base procurement dollars estimated in the amount of \$0.976 million support the project of taking the existing manual paper final inspection processes throughout the Joint Systems Manufacturing Center (JSMC) and transform electronically recorded information into one (1) central software. This migration from manual processes to electronically recorded processes with a final inspection is a planned reduction of 3-4% of standard operating efficiency. The project will allow for in-process asset tracking to improve quality and accountability which will modernize the facilities flexibility and capability for future Army plans.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Level/Alignment of Hull Machines (HM) HM0035 & HM0036 **Project Number:** JSMC037 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Joint Systems Manufacturing Center (JSMC) - Lima Facility Location: Lima, OH Facility Type (GOGO, GOCO, COCO): GOCO							
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	Related Projects						
B. Equipment Cost	-	-	0.700	-	0.700		Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date
C. Equipment Installation Cost	-	-	0.277	-	0.277								
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	-	-	0.977	-	0.977								

Narrative Explanation:
 FY 2024 Base procurement dollars estimated in the amount of \$0.997 million support the level and alignment of hull machines (HM) #0035 and #0036 that are a part of the heavy machining line (HML) and their transport system located at the Joint Systems Manufacturing Center (JSMC) - Lima, OH. This is repeated every two years to maintain the accuracy of the machine outputs. The equipment wear will start to build compounding errors in the bearing races and machined surfaces and those errors will be reflected in the quality of the machining work that the equipment can complete. This work will keep the machined surfaces square and true which allows for production quality and reduced potential downtime.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Thick Plate Machining Line Equipment **Project Number:** JMTC002 **Project Category:**

End Item Supported Model: AMPV, SPHS, MPF, Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Rock Island Arsenal - Joint Manufacturing and Technology Center (RIA-JTMC) Facility Location: Rock Island, IL Facility Type (GOGO, GOCO, COCO): GOGO							
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:							
B. Equipment Cost	8.215	-	-	-	-								
C. Equipment Installation Cost	0.295	-	-	-	-								
D. Contractor Support Cost	-	-	-	-	-								
E. Corps of Engineers Support Cost	-	-	-	-	-								
F. Other In-House Support Cost	-	-	-	-	-								
G. Total Facility Project Cost	-	-	-	-	-								
H. Other Costs	1.659	-	-	-	-								
Total Project Cost	10.169	-	-	-	-								
Related Projects							Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$10.169 million support the procurement of equipment required for increasing the capacity and capability of the thick aluminum armor plate machining line at Rock Island Arsenal Joint Manufacturing and Technology Center, as well as, conduct Industrial Base studies on Organic and Commercial support to the Defense Industrial base. Machined thick plate aluminum vehicle components minimizes the dependence on welding and forgings, improving quality and decreasing lead times. This processing technology will reduce the number of welds to minimize issues associated with weld quality and reduce the propensity for shock induced weld rupture, which addresses the Armored Multi-Purpose Vehicle (AMPV) Capability Development Document (CDD) requirements for System Survivability and Force Protection. In addition, unitized structure will address "idler cracking" observed during AMPV mobility testing. Decreases in weld defects and distortions in hull structure will minimize rework and production delays. 14 AMPV components have been prototyped and are ready to be manufactured using this new production capability. Equipment includes, but is not limited to, a second roughing station, a second shuttle carriage and finishing station, and will support the automated fabrication of large machined components for the production of Army vehicles.

Equipment cost details:

- 1) Second Roughing Station: This would increase the capacity of the line and remove a single point issue with the robotic machining.
- 2) Second Shuttle Carriage with additional wait stations: This would allow more flexibility in the movement of parts on the line as well as allow longer periods of un-manned operation by allowing more stations to be prepared ahead.
- 3) Second Finishing Station: This would increase the throughput of the line and further extend unmanned operation time.
- 4) Thick Plate Machining Ancillary Equipment: Fixture manufacturing capability and refined fixtures to support the milling operations.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Tool Room Modernization **Project Number:** JMTC003 **Project Category:**

End Item Supported Model: AMPV, SPHS, MPF, Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Rock Island Arsenal - Joint Manufacturing and Technology Center (RIA-JTMC) Facility Location: Rock Island, IL Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	0.838	-	-	-	-							
C. Equipment Installation Cost	0.040	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	0.060	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	0.938	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$.938 million support the procurement of equipment required for increasing the capacity and precision of the tool room at Rock Island Arsenal Joint Manufacturing and Technology Center (JMTC). Equipment includes, but is not limited to, several new small machines (grinders, measuring equipment, lathes, mills) to enable fabrication of tools and fixtures for use on all JMTC programs to include the thick plate milling line. Project enables fabrication of tools and fixtures more quickly and with higher precision.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: CNC Cutting Table and Spreader **Project Number:** JMTC004 **Project Category:**

End Item Supported Model: AMPV, SPHS, MPF, Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Rock Island Arsenal - Joint Manufacturing and Technology Center (RIA-JTMC) Facility Location: Rock Island, IL Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	0.375	-	-	-	-							
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	0.375	-	-	-	-	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the the amount of \$0.375 million support the procurement of equipment required for increasing the capacity and precision of pliable material and composite cutting at Rock Island Arsenal Joint Manufacturing and Technology Center. Equipment is includes Computer Numerical Control (CNC) cutting table (also known as a burner table) and spreader. Pliable material and composites are cut manually and are labor intensive with low precision. This investment provides automated cutting with speed, precision, and increased capacity.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Bridge Mill (Thick plate machining line) **Project Number:** JMTC005 **Project Category:**

End Item Supported Model: AMPV, SPHS, MPF, Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Rock Island Arsenal - Joint Manufacturing and Technology Center (RIA-JTMC) Facility Location: Rock Island, IL Facility Type (GOGO, GOCO, COCO): GOGO																		
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:																		
B. Equipment Cost	3.300	-	-	-	-																			
C. Equipment Installation Cost	0.200	-	-	-	-																			
D. Contractor Support Cost	-	-	-	-	-																			
E. Corps of Engineers Support Cost	-	-	-	-	-																			
F. Other In-House Support Cost	-	-	-	-	-																			
G. Total Facility Project Cost	-	-	-	-	-																			
H. Other Costs	-	-	-	-	-																			
Total Project Cost	3.500	-	-	-	-	Related Projects																		
						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">Title</th> <th style="width: 10%;">FY & Appn</th> <th style="width: 10%;">Value (\$ M)</th> <th style="width: 10%;">Facing</th> <th style="width: 10%;">Start Date</th> <th style="width: 10%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>					Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date																		

Narrative Explanation:
 There is no FY 2024 budget request for this project.

FY 2022 Base procurement dollars in the amount of \$3.500 million support the procurement of equipment required for increasing the capacity and capability of the thick aluminum armor plate machining line at Rock Island Arsenal Joint Manufacturing and Technology Center. Equipment includes, but is not limited to, a bridge mill to allow machining of larger parts and steel components to support the automated fabrication of large machined components for the production of Army vehicles. This investment will increase the capability by allowing machining of larger parts and allow machining of steel components and the fixtures from the line would increase capacity since it would be able to be used as a second finishing station if workload required.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: JMTC Miscellaneous Small Projects **Project Number:** JMTC006 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Rock Island Arsenal - Joint Manufacturing and Technology Center (RIA-JTMC) Facility Location: Rock Island, IL Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	-	-	1.750	-	1.750							
Total Project Cost	-	-	1.750	-	1.750	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

FY 2024 Base procurement dollars in the amount of \$1.750 million support the Abrams Tank Production Process and Abrams Industrial Base by focusing on maintaining, improving, optimizing, and modernizing the manufacturing facilities located at Rock Island Arsenal Joint Manufacturing and Technology Center (RIA-JMTC) - Rock Island, IL.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Flexible Plating Line **Project Number:** JMTC007 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Rock Island Arsenal - Joint Manufacturing and Technology Center (RIA-JTMC) Facility Location: Rock Island, IL Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	Related Projects					
B. Equipment Cost	-	-	1.236	-	1.236							
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	-	-	1.236	-	1.236							
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$1.236 million to procure and install a flexible electroless nickel plating line to support production located at Rock Island Arsenal Joint Manufacturing and Technology Center (RIA-JMTC) - Rock Island, IL. This project re-introduces Nickel Plating capability to JMTC. Nickel plating is used to provide corrosion and wear surface protection for several weapons system components produced by JMTC. This project will replace existing, non-industry standard sand handling system with separate systems for differing sand and product types. This will enable best possible quality for both steel and aluminum cast weapon system parts. Mold shake-out will be enhanced through the replacement of an obsolete mold handling excavator ensuring a safe excavation process. The overall impact is an increase in cast part quality, reduction in environmental and personal safety impacts, developing and installing a new flexible plating line capable of electroless nickel coating and rapid switch to other new coatings. This will reduce lead time and supply chain risk on gun system parts by creating a new organic capability for current and future coatings and supports new and obsolescent weapon system production.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Sand Handling System **Project Number:** JMTC008 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Rock Island Arsenal - Joint Manufacturing and Technology Center (RIA-JTMC) Facility Location: Rock Island, IL Facility Type (GOGO, GOCO, COCO): GOGO																									
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th align="center" colspan="6">Related Projects</th> </tr> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">Title</th> <th style="width: 10%;">FY & Appn</th> <th style="width: 10%;">Value <i>(\$ M)</i></th> <th style="width: 10%;">Facing</th> <th style="width: 10%;">Start Date</th> <th style="width: 10%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>					Related Projects						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date							
Related Projects																															
Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date							Compl Date																			
B. Equipment Cost	-	-	1.236	-	1.236																										
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	-	-	1.236	-	1.236																										

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$1.236 million to procure and install a sand handling system to support production located at Rock Island Arsenal Joint Manufacturing and Technology Center (RIA-JMTC) - Rock Island, IL. This project will replace existing, non-industry standard sand handling systems with separate systems for differing sand and product types. This will enable the best possible quality for both steel and aluminum cast weapon system parts. Mold shake-out will be enhanced through the replacement of an obsolete mold handling excavator ensuring a safe excavation process. The overall impact is an increase in cast part quality and reduction in environmental and personal safety impacts.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Upgrade Existing Paint Booths **Project Number:** JMTC009 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Rock Island Arsenal - Joint Manufacturing and Technology Center (RIA-JTMC) Facility Location: Rock Island, IL Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	Related Projects					
B. Equipment Cost	-	-	2.700	-	2.700							
C. Equipment Installation Cost	-	-	1.800	-	1.800							
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	-	-	4.500	-	4.500							
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:

FY 2024 Base procurement dollars in the amount of \$4.500 million is to convert two (2) existing manual paint lines and two (2) drive-in booths through the integration of a flexible robotic paint system located at Rock Island Arsenal Joint Manufacturing and Technology Center (RIA-JMTC) - Rock Island, IL. This will automate a manufacturing process that nearly 90% of all arsenals manufacturing components utilize. Applying modern robotics and imaging systems to existing painting and post processing infrastructure will reduce labor costs, increase safety of workers, and improve quality through consistency. Robotic paint automation can reduce raw material consumption by up to 30% due to improved paint application accuracy and limiting waste through unnecessary overspray. Operationalizing robotic painting removes the hazards of volatile organic compound exposure for employees that are currently mitigated through cumbersome and bulky personal protective equipment. Organically manufactured components will gain schedule reliability from an automated painting process achieved through an increased throughput production capacity. Flexibility to efficiently execute to a variable quantity volume, with a high mix of complexity, will enable the painting of large weapon systems as well as mid to small size subcomponents of systems.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Sand Printing Package **Project Number:** JMTC010 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Rock Island Arsenal - Joint Manufacturing and Technology Center (RIA-JTMC) Facility Location: Rock Island, IL Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	Related Projects					
B. Equipment Cost	-	-	1.500	-	1.500							
C. Equipment Installation Cost	-	-	0.500	-	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	-	-	-	-	-							
Total Project Cost	-	-	2.000	-	2.000							
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$2.000 million support the procurement and installation of a sand printing package located at Rock Island Arsenal Joint Manufacturing and Technology Center (RIA-JMTC) - Rock Island, IL. This continues the sand-casting process transformation from legacy molding techniques to a high-speed prototype and production methodology of printed sand cores and molds. This migration from manually producing wood patterns and core boxes to model based tooling development will significantly lessen the time for producing production castings and is immediately applicable to current Main Battle Tank System (MBTS) cast parts. The project incorporates robotic sand milling to produce mold cavities in an effective and efficient manner. Hard tooling will no longer be a prerequisite for creating low to medium volumes of mold cavities, reducing lead times and startup costs while improving product quality through rapid, iterative mold design.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: Large, Multi-Axis Machining **Project Number:** JMTC011 **Project Category:**

End Item Supported Model: Abrams **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Rock Island Arsenal - Joint Manufacturing and Technology Center (RIA-JTMC) Facility Location: Rock Island, IL Facility Type (GOGO, GOCO, COCO): GOGO						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	Related Projects					
B. Equipment Cost	-	-	7.500	-	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	-	-	-	-	-							
Total Project Cost	-	-	7.500	-	7.500							
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$7.500 million to support the procurement and installation of two (2) different large multi-axis machining systems and supporting equipment located at Rock Island Arsenal Joint Manufacturing and Technology Center (RIA-JMTC) - Rock Island, IL. These automated machining systems will be used to make precise and complex geometry cutting of metal sheets, plates, and blocks to support production of Cannon systems. Production quality and delivery will be modernized through improved repeatability, automation, more efficient cutting, and greater machine uptime. This project replaces outdated and unreliable existing machines with modern machines capable of producing large, machined armor components; reducing setup and run times, and enabling complex machining on next generation weapon systems.

This project is a new start in FY 2024.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 30 **P-1 Line Item Number / Title:** 3270GC0050 / Production Base Support (WOCV-WTCV)

Project Title: ATEC Facilities **Project Number:** ATEC **Project Category:**

End Item Supported Model: **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Facility Name: Army Test and Evaluation Command (ATEC) Facilities Facility Location: Various Facility Type (GOGO, GOCO, COCO):						
A. Construction Cost	-	-	-	-	-	Principal Milestones Month & Year Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
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	3.668	3.681	3.816	-	3.816							
Total Project Cost	3.668	3.681	3.816	-	3.816	Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

Narrative Explanation:
 FY 2024 Base procurement dollars in the amount of \$3.816 million support the Army Test and Evaluation Command priorities at the following locations:

- Aberdeen Test Center (ATC) will continue to modernize fire control instrumentation required to assess weapon system fire control performance on a wide range of test items. Aberdeen Test Center will continue replacing and upgrading weapon, sight, and target scoring high-definition video cameras, recorders, digital video processing systems, fiber optic converters, and telemetry systems. Replacement equipment is scheduled to address obsolescence issues, software compatibility gaps, and deterioration of existing hardware while ensuring test equipment maintains pace with technological advances of test items to preclude lack of test support. Aberdeen Test Center will also procure new instrumentation that will allow Electromagnetic Interference (EMI) testing of current and future military platforms, including autonomous vehicles.
- White Sands Test Center (WSTC) will continue to maintain and upgrade existing equipment and instrumentation for the developing and evolving White Sands Missile Range (WSMR) directed energy - High-Power Microwave (HPM), Electromagnetic Pulse (EMP) and lightning effects test simulators. These items include sensors, oscilloscopes, fiber optic links, vacuum systems, cryogenic superconducting magnets, waveguides, antennas, cathodes, insulators, and various cabling and subassemblies. These efforts will help White Sands Test Center meet regulatory, customer, and/or evolving mission requirements.
- Yuma Test Center (YTC) will acquire upgraded sensors, sensor positioning equipment, control hardware, signal conditioners, and other data acquisition equipment and software to modernize and improve accuracy and efficiency of ballistics data acquisition.