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**Department of Defense
Fiscal Year (FY) 2021 Budget Estimates**

February 2020



Army

*Justification Book of
Procurement of W&TCV, Army*

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Army • Budget Estimates FY 2021 • Procurement

Table of Contents

Introduction and Explanation of Contents..... ii

Comptroller Exhibit P-1..... iv

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

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

Exhibit P-1M, Procurement Programs - Modification Summary..... xxv

Exhibit P-40s..... 1

Cost Statement

The following Justification Books were prepared at a cost of \$460,860: 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 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, \$3,711,965,000 to remain available for obligation until September 30, 2023.

FY 2021 Overseas Contingency Operations funding can be separated into the following categories:

- OCO for Direct War Costs (\$15,225,000): Direct War costs are those combat or direct combat support costs that will not continue to be expended once combat operations end at major contingency locations.
- OCO for Enduring Requirements (\$000): OCO for Enduring Requirements are enduring in-theater and in-CONUS costs that will likely remain after combat operations cease, and have previously been funded in OCO.
- OCO for Base Requirements (\$000): OCO for Base Requirements is funding to pay for base budget requirements, that are financed in the OCO budget in order for the Department to comply with the Budget Control Act of 2011.”

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Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

<u>Appropriation</u>	<u>FY 2019 (Base + OCO)</u>	<u>FY 2020 Base Enacted</u>	<u>FY 2020 Emergency</u>	<u>FY 2020 OCO Enacted</u>
Procurement of W&TCV, Army	5,569,768	4,663,597		346,306
Total Department of the Army	5,569,768	4,663,597		346,306

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

<u>Appropriation</u>	<u>FY 2020 Total Enacted (Base+Emerg+ OCO)</u>	<u>FY 2021 Base</u>	<u>FY 2021 OCO for Base Requirements</u>	<u>FY 2021 OCO for Direct War and Enduring Costs</u>
Procurement of W&TCV, Army	5,009,903	3,696,740		15,225
Total Department of the Army	5,009,903	3,696,740		15,225

UNCLASSIFIED

Department of the Army
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2020

<u>Appropriation</u>	<u>FY 2021 Total OCO</u>	<u>FY 2021 Total (Base + OCO)</u>
Procurement of W&TCV, Army	15,225	3,711,965
Total Department of the Army	15,225	3,711,965

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Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

Appropriation: Procurement of W&TCV, Army

Budget Activity	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted
01. Tracked Combat Vehicles	5,184,457	4,482,607		311,836
02. Weapons and Other Combat Vehicles	385,311	180,990		34,470
Total Procurement of W&TCV, Army	5,569,768	4,663,597		346,306

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Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

Appropriation: Procurement of W&TCV, Army

Budget Activity -----	FY 2020 Total Enacted (Base+Emerg+ OCO) -----	FY 2021 Base -----	FY 2021 OCO for Base Requirements -----	FY 2021 OCO for Direct War and Enduring Costs -----
01. Tracked Combat Vehicles	4,794,443	3,536,410		
02. Weapons and Other Combat Vehicles	215,460	160,330		15,225
Total Procurement of W&TCV, Army	5,009,903	3,696,740		15,225

UNCLASSIFIED

Department of the Army
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2020

Appropriation: Procurement of W&TCV, Army

Budget Activity -----	FY 2021 Total OCO -----	FY 2021 Total (Base + OCO) -----
01. Tracked Combat Vehicles		3,536,410
02. Weapons and Other Combat Vehicles	15,225	175,555
Total Procurement of W&TCV, Army	15,225	3,711,965

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Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

Appropriation: 2033A Procurement of W&TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
<u>Budget Activity 01: Tracked Combat Vehicles</u>											
Tracked Combat Vehicles											
1	BRADLEY PROGRAM	B	70	205,000							U
2	Armored Multi Purpose Vehicle (AMPV)	A	205	672,742	59	230,307			62	214,490	U
Modification of Tracked Combat Vehicles											
3	Stryker (Mod)	A		127,289		393,587				4,100	U
4	Stryker Upgrade	A	82	265,290	143	513,858					U
5	Bradley Program (MOD)	A		514,424		415,740					U
6	M109 FOV Modifications	A		26,482		25,756					U
7	Paladin Integrated Management (PIM)	A	51	525,902	48	553,425					U
8	Improved Recovery Vehicle (M88A2 HERCULES)	A	43	172,853					16	80,146	U
9	Assault Bridge (Mod)			2,420		22,021					U
10	Assault Breacher Vehicle	A	13	62,107	6	31,697					U
11	M88 FOV MODS	A		4,517		4,500					U
12	Joint Assault Bridge	A	21	119,147	45	205,517					U
13	M1 Abrams Tank (MOD)	A		959,041		340,192				13,100	U
14	Abrams Upgrade Program	A	168	1,527,243	165	1,746,007					U
Total Tracked Combat Vehicles				5,184,457		4,482,607				311,836	

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

Appropriation: 2033A Procurement of W&TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+ OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
<u>Budget Activity 01: Tracked Combat Vehicles</u>											
Tracked Combat Vehicles											
1	BRADLEY PROGRAM	B									U
2	Armored Multi Purpose Vehicle (AMPV)	A	121	444,797	32	192,971					U
Modification of Tracked Combat Vehicles											
3	Stryker (Mod)	A		397,687							U
4	Stryker Upgrade	A	143	513,858	154	847,212					U
5	Bradley Program (MOD)	A		415,740		493,109					U
6	M109 FOV Modifications	A		25,756		26,893					U
7	Paladin Integrated Management (PIM)	A	48	553,425	30	435,825					U
8	Improved Recovery Vehicle (M88A2 HERCULES)	A	16	80,146							U
9	Assault Bridge (Mod)			22,021		5,074					U
10	Assault Breacher Vehicle	A	6	31,697	4	19,500					U
11	M88 FOV MODS	A		4,500		18,382					U
12	Joint Assault Bridge	A	45	205,517	14	72,178					U
13	M1 Abrams Tank (MOD)	A		353,292		392,013					U
14	Abrams Upgrade Program	A	165	1,746,007	89	1,033,253					U
Total Tracked Combat Vehicles				4,794,443		3,536,410					

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

Appropriation: 2033A Procurement of W&TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total OCO		FY 2021 Total (Base + OCO)		S e c
			Quantity	Cost	Quantity	Cost	
<u>Budget Activity 01: Tracked Combat Vehicles</u>							
Tracked Combat Vehicles							
1	BRADLEY PROGRAM	B					U
2	Armored Multi Purpose Vehicle (AMPV)	A			32	192,971	U
Modification of Tracked Combat Vehicles							
3	Stryker (Mod)	A					U
4	Stryker Upgrade	A			154	847,212	U
5	Bradley Program (MOD)	A				493,109	U
6	M109 FOV Modifications	A				26,893	U
7	Paladin Integrated Management (PIM)	A			30	435,825	U
8	Improved Recovery Vehicle (M88A2 HERCULES)	A					U
9	Assault Bridge (Mod)					5,074	U
10	Assault Breacher Vehicle	A			4	19,500	U
11	M88 FOV MODS	A				18,382	U
12	Joint Assault Bridge	A			14	72,178	U
13	M1 Abrams Tank (MOD)	A				392,013	U
14	Abrams Upgrade Program	A			89	1,033,253	U
Total Tracked Combat Vehicles						3,536,410	

P-121PB: FY 2021 President's Budget (Published Version), as of January 27, 2020 at 14:04:04

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Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

Appropriation: 2033A Procurement of W&TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
<u>Budget Activity 02: Weapons and Other Combat Vehicles</u>											
Weapons & Other Combat Vehicles											
15	M240 Medium Machine Gun (7.62mm)	A		14,581		11,600				900	U
16	MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON S	A		19,880		16,864				2,400	U
17	Machine Gun, Cal .50 M2 Roll	A		22,330							U
18	Mortar Systems			24,312		14,085				18,941	U
19	XM320 Grenade Launcher Module (GLM)	A		18,197		191				526	U
20	Precision Sniper Rifle	A				5,747					U
21	COMPACT SEMI-AUTOMATIC SNIPER SYSTEM	A		46,236		9,860					U
22	Carbine	A		69,606		30,331				1,183	U
23	Next Generation Squad Weapon	A									U
24	Common Remotely Operated Weapons Station			21,604		24,007				4,182	U
25	Handgun	A		48,251		6,174				248	U
Mod of Weapons and Other Combat Veh											
26	MK-19 Grenade Machine Gun MODS			1,684		3,737					U
27	M777 Mods	A		3,086		2,367					U
28	M4 Carbine Mods	A		38,075		17,595					U
29	M2 50 Cal Machine Gun MODS	B		19,098						6,090	U
30	M249 SAW Machine Gun MODS			3,139							U

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

Appropriation: 2033A Procurement of W&TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+ OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
<u>Budget Activity 02: Weapons and Other Combat Vehicles</u>											
Weapons & Other Combat Vehicles											
15	M240 Medium Machine Gun (7.62mm)	A		12,500							U
16	MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON S	A		19,264		17,864				4,765	U
17	Machine Gun, Cal .50 M2 Roll	A									U
18	Mortar Systems			33,026		10,288				10,460	U
19	XM320 Grenade Launcher Module (GLM)	A		717		5,969					U
20	Precision Sniper Rifle	A		5,747		10,137					U
21	COMPACT SEMI-AUTOMATIC SNIPER SYSTEM	A		9,860			999				U
22	Carbine	A		31,514		7,411					U
23	Next Generation Squad Weapon	A				35,822					U
24	Common Remotely Operated Weapons Station			28,189		24,534					U
25	Handgun	A		6,422		4,662					U
Mod of Weapons and Other Combat Veh											
26	MK-19 Grenade Machine Gun MODS			3,737		6,444					U
27	M777 Mods	A		2,367		10,983					U
28	M4 Carbine Mods	A		17,595		4,824					U
29	M2 50 Cal Machine Gun MODS	B		6,090							U
30	M249 SAW Machine Gun MODS										U

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

Appropriation: 2033A Procurement of W&TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total OCO		FY 2021 Total (Base + OCO)		S e c
			Quantity	Cost	Quantity	Cost	
<u>Budget Activity 02: Weapons and Other Combat Vehicles</u>							
Weapons & Other Combat Vehicles							
15	M240 Medium Machine Gun (7.62mm)	A					U
16	MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON S	A		4,765		22,629	U
17	Machine Gun, Cal .50 M2 Roll	A					U
18	Mortar Systems			10,460		20,748	U
19	XM320 Grenade Launcher Module (GLM)	A				5,969	U
20	Precision Sniper Rifle	A				10,137	U
21	COMPACT SEMI-AUTOMATIC SNIPER SYSTEM	A				999	U
22	Carbine	A				7,411	U
23	Next Generation Squad Weapon	A				35,822	U
24	Common Remotely Operated Weapons Station					24,534	U
25	Handgun	A				4,662	U
Mod of Weapons and Other Combat Veh							
26	MK-19 Grenade Machine Gun MODS					6,444	U
27	M777 Mods	A				10,983	U
28	M4 Carbine Mods	A				4,824	U
29	M2 50 Cal Machine Gun MODS	B					U
30	M249 SAW Machine Gun MODS						U

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

Appropriation: 2033A Procurement of W&TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
31	M240 Medium Machine Gun MODS	A		6,947		8,000					U
32	Sniper Rifles Modifications			2,747		2,426					U
33	M119 Modifications	A		5,704		16,269					U
34	Mortar Modification	A		3,965		1,693					U
35	Modifications Less Than \$5.0m (WOCV-WTCV)			6,362		4,327					U
Support Equipment & Facilities											
36	Items Less Than \$5.0m (WOCV-WTCV)			4,571		3,066					U
37	Production Base Support (WOCV-WTCV)			3,296		2,651					U
38	Small Arms Equipment (Soldier Enh Prog)			1,640							U
Total Weapons and Other Combat Vehicles				385,311		180,990				34,470	
Total Procurement of W&TCV, Army				5,569,768		4,663,597				346,306	

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

Appropriation: 2033A Procurement of W&TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base+Emerg+OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
31	M240 Medium Machine Gun MODS	A		8,000		6,385					U
32	Sniper Rifles Modifications			2,426		1,898					U
33	M119 Modifications	A		16,269		2,009					U
34	Mortar Modification	A		1,693		1,689					U
35	Modifications Less Than \$5.0m (WOCV-WTCV)			4,327		2,604					U
	Support Equipment & Facilities										
36	Items Less Than \$5.0m (WOCV-WTCV)			3,066		2,763					U
37	Production Base Support (WOCV-WTCV)			2,651		3,045					U
38	Small Arms Equipment (Soldier Enh Prog)										U
Total Weapons and Other Combat Vehicles				215,460		160,330				15,225	
Total Procurement of W&TCV, Army				5,009,903		3,696,740				15,225	

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

27 Jan 2020

Appropriation: 2033A Procurement of W&TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total OCO		FY 2021 Total (Base + OCO)		S e c -
			Quantity	Cost	Quantity	Cost	
31	M240 Medium Machine Gun MODS	A				6,385	U
32	Sniper Rifles Modifications					1,898	U
33	M119 Modifications	A				2,009	U
34	Mortar Modification	A				1,689	U
35	Modifications Less Than \$5.0m (WOCV-WTCV)					2,604	U
Support Equipment & Facilities							
36	Items Less Than \$5.0m (WOCV-WTCV)					2,763	U
37	Production Base Support (WOCV-WTCV)					3,045	U
38	Small Arms Equipment (Soldier Enh Prog)						U
Total Weapons and Other Combat Vehicles				15,225		175,555	
Total Procurement of W&TCV, Army				15,225		3,711,965	

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Army • Budget Estimates FY 2021 • 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	2897G80718	BRADLEY PROGRAM.....	1
2	01	10	2944G80819	Armored Multi Purpose Vehicle (AMPV).....	2
3	01	20	0230GM0100	Stryker (Mod).....	11
4	01	20	0363G85200	Stryker Upgrade.....	12
5	01	20	1678GZ2400	Bradley Program (MOD).....	30
6	01	20	2072GA0400	M109 FOV Modifications.....	49
7	01	20	2073GZ0410	Paladin Integrated Management (PIM).....	70
8	01	20	3700GA0570	Improved Recovery Vehicle (M88A2 HERCULES).....	81
9	01	20	4520GZ3250	Assault Bridge (Mod).....	82
10	01	20	4872G82925	Assault Breacher Vehicle.....	88
11	01	20	5129G80571	M88 FOV MODS.....	96
12	01	20	5225GZ3001	Joint Assault Bridge.....	102
13	01	20	6406GA0700	M1 Abrams Tank (MOD).....	112
14	01	20	6500GA0750	Abrams Upgrade Program.....	130

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Appropriation 2033A: Procurement of W&TCV, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
15	02	10	2472G13000	M240 Medium Machine Gun (7.62mm).....	139
16	02	10	3736G13101	MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM.....	140
17	02	10	5000GB2000	Machine Gun, Cal .50 M2 Roll.....	147
18	02	10	6580G02200	Mortar Systems.....	148
19	02	10	8181G01501	XM320 Grenade Launcher Module (GLM).....	158
20	02	10	8190G01506	Precision Sniper Rifle.....	163
21	02	10	8194G01507	COMPACT SEMI-AUTOMATIC SNIPER SYSTEM.....	168
22	02	10	8201G13501	Carbine.....	170
23	02	10	8205G14510	Next Generation Squad Weapon.....	175
24	02	10	8310G04700	Common Remotely Operated Weapons Station.....	184
25	02	10	8635G15325	Handgun.....	189
26	02	20	3000GB3000	MK-19 Grenade Machine Gun MODS.....	191
27	02	20	3005GZ1700	M777 Mods.....	204
28	02	20	3010GB3007	M4 Carbine Mods.....	213
29	02	20	3015GB4000	M2 50 Cal Machine Gun MODS.....	215
30	02	20	3020GZ1290	M249 SAW Machine Gun MODS.....	217

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Appropriation 2033A: Procurement of W&TCV, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
31	02	20	3030GZ1300	M240 Medium Machine Gun MODS.....	218
32	02	20	3181GZ1500	Sniper Rifles Modifications.....	223
33	02	20	3640GC0401	M119 Modifications.....	225
34	02	20	7054G02100	Mortar Modification.....	227
35	02	20	9280GC0925	Modifications Less Than \$5.0m (WOCV-WTCV).....	228
36	02	30	1862GL3200	Items Less Than \$5.0m (WOCV-WTCV).....	229
37	02	30	3270GC0050	Production Base Support (WOCV-WTCV).....	231
38	02	30	4010GC0076	Small Arms Equipment (Soldier Enh Prog).....	233

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

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

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Abrams Upgrade Program	6500GA0750	14	01	20.....	130
Armored Multi Purpose Vehicle (AMPV)	2944G80819	2	01	10.....	2
Assault Breacher Vehicle	4872G82925	10	01	20.....	88
Assault Bridge (Mod)	4520GZ3250	9	01	20.....	82
BRADLEY PROGRAM	2897G80718	1	01	10.....	1
Bradley Program (MOD)	1678GZ2400	5	01	20.....	30
COMPACT SEMI-AUTOMATIC SNIPER SYSTEM	8194G01507	21	02	10.....	168
Carbine	8201G13501	22	02	10.....	170
Common Remotely Operated Weapons Station	8310G04700	24	02	10.....	184
Handgun	8635G15325	25	02	10.....	189
Improved Recovery Vehicle (M88A2 HERCULES)	3700GA0570	8	01	20.....	81
Items Less Than \$5.0m (WOCV-WTCV)	1862GL3200	36	02	30.....	229
Joint Assault Bridge	5225GZ3001	12	01	20.....	102
M1 Abrams Tank (MOD)	6406GA0700	13	01	20.....	112
M109 FOV Modifications	2072GA0400	6	01	20.....	49
M119 Modifications	3640GC0401	33	02	20.....	225
M2 50 Cal Machine Gun MODS	3015GB4000	29	02	20.....	215

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Line Item Title	Line Item Number	Line #	BA	BSA	Page
M240 Medium Machine Gun (7.62mm)	2472G13000	15	02	10.....	139
M240 Medium Machine Gun MODS	3030GZ1300	31	02	20.....	218
M249 SAW Machine Gun MODS	3020GZ1290	30	02	20.....	217
M4 Carbine Mods	3010GB3007	28	02	20.....	213
M777 Mods	3005GZ1700	27	02	20.....	204
M88 FOV MODS	5129G80571	11	01	20.....	96
MK-19 Grenade Machine Gun MODS	3000GB3000	26	02	20.....	191
MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM	3736G13101	16	02	10.....	140
Machine Gun, Cal .50 M2 Roll	5000GB2000	17	02	10.....	147
Modifications Less Than \$5.0m (WOCV-WTCV)	9280GC0925	35	02	20.....	228
Mortar Modification	7054G02100	34	02	20.....	227
Mortar Systems	6580G02200	18	02	10.....	148
Next Generation Squad Weapon	8205G14510	23	02	10.....	175
Paladin Integrated Management (PIM)	2073GZ0410	7	01	20.....	70
Precision Sniper Rifle	8190G01506	20	02	10.....	163
Production Base Support (WOCV-WTCV)	3270GC0050	37	02	30.....	231
Small Arms Equipment (Soldier Enh Prog)	4010GC0076	38	02	30.....	233
Sniper Rifles Modifications	3181GZ1500	32	02	20.....	223
Stryker (Mod)	0230GM0100	3	01	20.....	11
Stryker Upgrade	0363G85200	4	01	20.....	12

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Line Item Title	Line Item Number	Line #	BA	BSA	Page
XM320 Grenade Launcher Module (GLM)	8181G01501	19	02	10.....	158

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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:	Armored Vehicle Launched Bridge	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
GZ3250	Assault Bridge (Mod)	Yes

Model:	Assault Breacher Vehicle	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
GZ3250	Assault Bridge (Mod)	Yes

Model:	M88	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
G80571	M88 FOV MODS	No

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Exhibit P-1M, Procurement Programs - Modification Summary
(Listing by Model)

Model:	Abrams Family of Vehicles	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
GA0700	M1 Abrams Tank (MOD)	No

Model:	MK-19 Grenade Machine Gun & M2 50 Cal Machine Gun	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
GB3000	MK-19 Grenade Machine Gun MODS	No

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

Model:	M240 Medium Machine Gun	
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
GZ1300	M240 Medium Machine Gun MODS	No

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Exhibit P-1M, Procurement Programs - Modification Summary
(Funding for Modifications)

Funding (\$ M)

P-3a Modification Title	PYS	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Exhibit P-3a										
Bradley Program (MOD)	5,954.388	514.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562
M109 FOV Modifications	2,119.814	26.482	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849
Assault Bridge (Mod)	355.160	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000
M88 FOV MODS	126.273	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-
M1 Abrams Tank (MOD)	6,960.483	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035
MK-19 Grenade Machine Gun MODS	44.754	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-
M777 Mods	147.917	3.086	2.367	10.983	-	10.983	-	-	-	-
M240 Medium Machine Gun MODS	172.192	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-
Totals (Total Obligation Authority)										
Total Obligation Authority	15,880.981	1,518.601	835.413	959.283	0.000	959.283	978.093	831.667	637.583	797.446

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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:
2897G80718 / BRADLEY 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	137	70	-	-	-	-	-	-	-	-	-	207
Gross/Weapon System Cost (<i>\$ in Millions</i>)	364.069	205.000	-	-	-	-	-	-	-	-	-	569.069
Less PY Advance Procurement (<i>\$ in Millions</i>)	22.504	-	-	-	-	-	-	-	-	-	-	22.504
Net Procurement (P-1) (<i>\$ in Millions</i>)	341.565	205.000	-	-	-	-	-	-	-	-	-	546.565
Plus CY Advance Procurement (<i>\$ in Millions</i>)	22.504	-	-	-	-	-	-	-	-	-	-	22.504
Total Obligation Authority (<i>\$ in Millions</i>)	364.069	205.000	-	-	-	-	-	-	-	-	-	569.069

(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>)	2,657.438	2,928.571	-	-	-	-	-	-	-	-	-	2,749.126

Description:

The Bradley Program upgrades the existing Bradley M2A2 ODS and M2A2 ODS - Situational Awareness (ODS-SA)/M7A3 vehicle to the Bradley M2A4/M7A4 configuration to support the COCOM requirement for unit equipment sets to deter potential adversaries and support the European Deterrence Initiative (EDI). Improvements to the Bradley M7A2 ODS-SA vehicle include increasing lethality by installing a Commander's Independent Viewer (CIV) providing a hunter-killer capability to the Bradley Gunner and Vehicle Commander, increasing survivability by incorporating improved suspension and track components, increasing mobility by integrating an upgraded engine and transmission improving vehicle acceleration, top speed, and braking capacity, and increasing vehicle electrical power generation and distribution by improving the system architecture and generation capabilities. Current projections indicate that the M2/M7A4 Bradley Fighting Vehicle will be critical for the ABCT formation until FY 2050.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	70	-	-	-	-	-	-	-	-
Total Obligation Authority	205.000	-	-	-	-	-	-	-	-
Total:									
Secondary Distribution									
Quantity	70	-	-	-	-	-	-	-	-
Total Obligation Authority	205.000	-	-	-	-	-	-	-	-

Justification:

FY 2021 Base procurement dollars in the amount of \$0.000 million.

In accordance with Section 1815 of the FY2008 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 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	148	205	121	32	-	32	168	189	195	193	1,646	2,897
Gross/Weapon System Cost (<i>\$ in Millions</i>)	557.294	672.742	444.797	192.971	-	192.971	682.064	820.354	893.595	860.343	9,439.242	14,563.402
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	557.294	672.742	444.797	192.971	-	192.971	682.064	820.354	893.595	860.343	9,439.242	14,563.402
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	557.294	672.742	444.797	192.971	-	192.971	682.064	820.354	893.595	860.343	9,439.242	14,563.402
<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>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	3,765.500	3,281.668	3,676.008	6,030.344	-	6,030.344	4,059.905	4,340.497	4,582.538	4,457.736	5,734.655	5,027.063

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). 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 FoV by transferring the current M113 Mission Equipment Packages (MEP) to a new Military Vehicle Derivative (MVD) platform. In total, the AMPV FOV will account for approximately 30% of the ABCT's tracked fleet and consists of the following five variants:

1. Mission Command (MCcmd) Vehicle: This platform enables effective mission command planning and execution for both the Tactical Operations Center (TOC) and Tactical Command Vehicle (TAC) versions of the MCcmd. It will host current Battle Command Systems, future replacements, and upgrades of hardware and software.
2. Medical Treatment (MT) Vehicle: 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) Vehicle: This platform will conduct ambulance type activities and provide casualty evacuation for up to four litter or six ambulatory patients, with a crew of three medical attendants.
4. General Purpose (GP) Vehicle: 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) Vehicle: This platform will provide immediate responsive fire support to conduct fast-paced offensive operations.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	205	121	32	-	32	168	189	195	193
	Total Obligation Authority	672.742	444.797	192.971	-	192.971	682.064	820.354	893.595	860.343
Total: Secondary Distribution	Quantity	205	121	32	-	32	168	189	195	193
	Total Obligation Authority	672.742	444.797	192.971	-	192.971	682.064	820.354	893.595	860.343

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		148 / 557.294	205 / 672.742	121 / 444.797	32 / 192.971	- / -	32 / 192.971
P-40	Total Gross/Weapon System Cost				148 / 557.294	205 / 672.742	121 / 444.797	32 / 192.971	- / -	32 / 192.971

*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 2021 Base procurement dollars in the amount of \$192.971M procures 32 Armored Multi-Purpose Vehicles (AMPVs). These assets are budgeted in the fiscal year in which the long lead items are initially procured. Accordingly, the FY 2021 cost covers all contractor efforts related to recurring production, production support, government efforts, and testing/training/fielding support. The AMPV will mitigate current and future capability gaps in force protection, mobility, reliability, and interoperability across the Spectrum of Conflict.

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

This program supports the Cross Functional Team (CFT).

P40 quantity:
 FY 2018: Actual quantity is 156
 FY 2019: Actual quantity is 198

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	148	205	121	32	-	32
Gross/Weapon System Cost (\$ in Millions)	557.294	672.742	444.797	192.971	-	192.971
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	557.294	672.742	444.797	192.971	-	192.971
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	557.294	672.742	444.797	192.971	-	192.971

(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)	3,765.500	3,281.668	3,676.008	6,030.344	-	6,030.344

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)	3,532.647	156	551.093	3,091.894	198	612.195	3,237.421	121	391.728	3,553.656	32	113.717	-	-	-	3,553.656	32	113.717
Engineering Change Orders	-	-	-	-	-	-	-	-	4.108	-	-	3.400	-	-	-	-	-	3.400
Sys Eng / Prog Mgmt (Government)	-	-	2.373	-	-	12.845	-	-	18.366	-	-	23.520	-	-	-	-	-	23.520
Sys Test & Evaluation (Government)	-	-	-	-	-	-	-	-	-	-	-	7.654	-	-	-	-	-	7.654
Training Devices	-	-	-	-	-	0.250	-	-	11.137	-	-	12.088	-	-	-	-	-	12.088
Total Package Fielding (TPF)	-	-	2.948	-	-	9.466	-	-	8.958	-	-	16.110	-	-	-	-	-	16.110
System Technical Support (STS)	-	-	-	-	-	-	-	-	10.500	-	-	16.482	-	-	-	-	-	16.482
Subtotal: Recurring Cost	-	-	556.414	-	-	634.756	-	-	444.797	-	-	192.971	-	-	-	-	-	192.971
Non Recurring Cost																		
Other	-	-	0.880	-	-	37.986	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	0.880	-	-	37.986	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	-	-	557.294	-	-	672.742	-	-	444.797	-	-	192.971	-	-	-	-	-	192.971
Gross/Weapon System Cost	3,765.500	148	557.294	3,281.668	205	672.742	3,676.008	121	444.797	6,030.344	32	192.971	-	-	-	6,030.344	32	192.971

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	205	121	32	-	32
	Total Obligation Authority	672.742	444.797	192.971	-	192.971
Total:	Quantity	205	121	32	-	32
Secondary Distribution	Total Obligation Authority	672.742	444.797	192.971	-	192.971

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

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
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 (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Vehicle Manufacturing - Contractor ^(†)		2018	BAE Land Systems / York, PA	Option / FPIF	Warren, MI	Jan 2019	Jun 2020	156	4,065.489	N		
Vehicle Manufacturing - Contractor ^(†)		2019	BAE Land Systems / York, PA	Option / FPIF	Warren, MI	Jan 2019	Jun 2021	198	3,091.894	N		
Vehicle Manufacturing - Contractor ^(†)		2020	BAE Land Systems / York, PA	Option / FPIF	Warren, MI	Jan 2020	Feb 2023	121	3,237.421	N		
Vehicle Manufacturing - Contractor ^(†)		2021	BAE Land Systems / York, PA	Option / FPIF	Warren, MI	Apr 2022	Oct 2023	32	3,553.656	N		

^(†) indicates the presence of a P-21

Remarks:

FY 2018: LRIP option 1 awarded 42 vehicles and LRIP option 2a awarded 28 vehicles in Jan 2019. LRIP option 2b awarded 86 vehicles in Feb 2019. Total vehicles purchased with FY 2018 production is 156 vehicles.

FY 2019: LRIP option 2a awarded 37 vehicles in Jan 2019. LRIP option 2b awarded 94 vehicles in Feb 2019. LRIP option 3 will award 67 vehicles in Jan 2020. Total vehicles purchased with FY 2019 production is 198 vehicles.

FY 2020: LRIP option 3 will award 93 vehicles in Jan 2020. Follow-on award of 28 vehicles. Award date April 2022. Total vehicles purchased with FY 2020 production is 121 vehicles.

FY 2021: Follow-on award of 32 vehicles. Award date April 2022.

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Exhibit P-21, Production Schedule: PB 2021 Army			Date: February 2020
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 2019													Fiscal Year 2020													B A L A N C E		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 8	BAL D U E A S O F 1 O C T	Calendar Year 2019													Calendar Year 2020													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Vehicle Manufacturing - Contractor																																	
	1	2018	ARMY	156	0	156																											
	1	2019	ARMY	198	0	198																											
	1	2020	ARMY	121	0	121																											
	1	2021	ARMY	32	0	32																											
							O C T	N O V	D E C	J A N	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 2021 Army															Date: February 2020									
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 2021													Fiscal Year 2022													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 0	BAL D U E A 	Calendar Year 2021													Calendar Year 2022													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Vehicle Manufacturing - Contractor																																	
	1	2018	ARMY	156	7	149	4	2	3	3	4	6	6	6	1	10	13	-	-	10	-	-	-	10	16	16	16	12	7	3	1		
	1	2019	ARMY	198	0	198	-	-	-	-	-	-	-	-	2	-	3	16	16	4	12	16	16	6	-	-	-	-	9	13	85		
	1	2020	ARMY	121	0	121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	121			
	1	2021	ARMY	32	0	32																								32			
							O C T	N O V	D E C	J A N	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 2021 Army															Date: February 2020														
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																																		
1		2018	ARMY	156	155	1	-	1																								0		
1		2019	ARMY	198	113	85	16	13	12	16	-	-	-	5	16	7																0		
1		2020	ARMY	121	0	121	-	-	-	-	16	16	16	11	-	5	16	13	-	-	10	16	2									0		
1		2021	ARMY	32	0	32	-	-	-	-	-	-	-	-	-	-	-	-	16	14	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 2021 Army		Date: February 2020
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 2021	1-8-5 For 2021	MAX For 2021	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	3	10	16	0	10	19	29	0	6	18	24

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

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

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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:** 0230GM0100 / Stryker (Mod)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0273735A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	840.608	127.289	397.687	-	-	-	-	-	-	-	-	1,365.584
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	840.608	127.289	397.687	-	-	-	-	-	-	-	-	1,365.584
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	840.608	127.289	397.687	-	-	-	-	-	-	-	-	1,365.584
<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>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	1,472.915	-	-	-	-	-	-	-	-	5,057.719

Description:

Modifications to the Stryker Family of Vehicles (FOV) 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 integration of Lethality Engineering Change Proposals (ECPs) (formerly ECP 2) lethality upgrades to enhance the suppressive fire and armored vehicle engagement capabilities of the Army's Stryker Brigade Combat Teams (SBCTs).

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	127.289	397.687	-	-	-	-	-	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	127.289	397.687	-	-	-	-	-	-	-

Justification:

FY 2021 Base procurement dollars in the amount of \$0.000 million.

Stryker Modification efforts and funds in Stryker (Mod), 0230GM0100, are realigned to Stryker Upgrade, 0363G85200, starting in FY 2021.

In accordance with Section 1815 of the FY2008 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 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	440	82	143	154	-	154	148	148	142	142	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,462.090	265.290	513.858	847.212	-	847.212	903.648	938.202	910.545	906.095	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,462.090	265.290	513.858	847.212	-	847.212	903.648	938.202	910.545	906.095	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,462.090	265.290	513.858	847.212	-	847.212	903.648	938.202	910.545	906.095	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>)	3,322.932	3,235.244	3,593.413	5,501.377	-	5,501.377	6,105.730	6,339.203	6,412.289	6,380.951	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 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 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 Engineer Change Proposal (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 (On the DVH A1 ECP) development was approved. The DVH A1 ECP was approved for production in Aug 2016. DVH A1 ECP vehicle changes will be incorporated into the build of DVH-equipped Stryker vehicles using the exchange process. The Stryker Brigade Combat Team (SBCT), equipped with DVH A1 ECP vehicles, can be used across the full spectrum of military operations. The SBCT deploys rapidly and conducts 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 approved the exchange of all remaining brigades from flat bottom hulls to the DVH. DVH A1 will have a new requirements contract for FY20-25. Configurations of Stryker DVH A1 ECP vehicles are:

DVH A1 ECP Infantry Carrier: The DVH A1 ECP Infantry Carrier Vehicle (ICVV) carries an infantry squad with individual equipment. The ICVV 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.

DVH A1 ECP Mortar Carrier: The DVH A1 ECP Mortar Carrier (MCVV) 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.

DVH A1 ECP Commander's Vehicle: The DVH A1 ECP Commander's Vehicle (CVV) 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 2021 Army **Date:** February 2020

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

DVH A1 ECP Fire Support Vehicle: The DVH A1 ECP Fire Support Vehicle (FSVV) 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.

DVH A1 ECP Engineer Squad Vehicle: The DVH A1 ECP Engineer Squad Vehicle (ESVV) 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.

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

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

DVH A1 ECP Fire Direction Center (FDC) Vehicle: The DVH A1 ECP Fire Direction Center (FDC) vehicle provides the brigade an on-the move capability that processes voice and digital data while maintaining contact with the indirect fire team over extended distances. Procurement begins in FY22.

DVH A1 30MM Lethality Vehicle: The Stryker 30MM Lethality Vehicle carries an infantry or cavalry squad with individual equipment. The DVH A1 30MM Lethality Vehicle provides increased lethality capable of firing a variety of munitions designed to support each organization and their dismounted elements when executing combined arms maneuver and wide area security operations. This variant includes the DVH A1 ECP platform and the integrated 30MM Mission Equipment Package (MEP).

Modifications to the Stryker Family of Vehicles (FOV) to resolve reliability, lethality, safety, operational, performance degradation, chemical detection and Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) obsolescence issues. The retrofit of Lethality Engineering Change Proposals (ECPs) lethality 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) validated 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), and Mobile Gun System Hands-On Trainers (HOTs).

Retrofit Planning and Site Management to support fleet-wide retrofits for the Stryker Family of Vehicles (FOV).

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

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	82	143	154	-	154	148	119	41	40
	Total Obligation Authority	265.290	513.858	847.212	-	847.212	903.648	754.366	262.904	205.931
ANG	Quantity	-	-	-	-	-	-	29	101	102
	Total Obligation Authority	-	-	-	-	-	-	183.836	647.641	700.164
Total: Secondary Distribution	Quantity	82	143	154	-	154	148	148	142	142
	Total Obligation Authority	265.290	513.858	847.212	-	847.212	903.648	938.202	910.545	906.095

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		440 / 1,462.090	82 / 265.290	143 / 513.858	154 / 847.212	- / -	154 / 847.212
P-40	Total Gross/Weapon System Cost				440 / 1,462.090	82 / 265.290	143 / 513.858	154 / 847.212	- / -	154 / 847.212

*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 funds in (Mod) 0230GM0100, are realigned to Stryker Upgrade, 0363G85200, starting in FY 2021.

FY 2021 Base procurement dollars in the amount of \$847.212 million supports the following:

The exchange of 154 Flat-bottom Hull vehicles to DVH A1 ECP vehicles, 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.

The 42 DVH A1 30mm Lethality Vehicles will incorporate a DVH A1 platform with the 30mm Lethality Mission Equipment Package (MEP).

Fleet Modifications: 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 System, and refresh of the Fire Support Vehicle (FSV) MEP. Modifications will be conducted by field modification teams, subject to vehicle/hardware availability.

Retrofit Planning and Site Management: Retrofit planning, 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) validated 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).

Lethality ECPs: replaces the current Remote Weapon Station to the Common Remotely Operated Weapon Station (CROWS) with under armor Javelin fire capability, improved optics and targeting systems onto the ATGM vehicle, and 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 Vehicle (FoV).

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.

System Engineering for fleet modification for the FSV Technology refresh, Vehicle Intercom, In-Vehicle Network 2 (IVN2), and integration of emerging technologies such as Integrated Visual Augmentation System (IVAS) and improved power solution efforts.

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 2021 Army		Date: February 2020
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>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: 4,152</p> <p>In FY 2021, \$1.601 million in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.</p>		

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Exhibit P-5, Cost Analysis: PB 2021 Army					Date: February 2020				
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	
Procurement Quantity (Units in Each)			440	82	143	154	-	-	154
Gross/Weapon System Cost (\$ in Millions)			1,462.090	265.290	513.858	847.212	-	-	847.212
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			1,462.090	265.290	513.858	847.212	-	-	847.212
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			1,462.090	265.290	513.858	847.212	-	-	847.212
<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)			3,322.932	3,235.244	3,593.413	5,501.377	-	-	5,501.377

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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 ^(†)	2,693.256	262	705.633	2,520.449	49	123.502	2,836.105	114	323.316	2,880.725	51	146.917	-	-	-	2,880.725	51	146.917
DVH A1 ECP Anti-Tank Guided Missile Veh ^(†)	2,849.615	13	37.045	-	-	-	-	-	-	3,078.286	7	21.548	-	-	-	3,078.286	7	21.548
DVH A1 ECP Mortar Carrier Vehicle ^(†)	2,841.362	47	133.544	2,715.375	16	43.446	3,107.636	11	34.184	3,154.700	10	31.547	-	-	-	3,154.700	10	31.547
DVH A1 ECP Fire Support Vehicle ^(†)	3,037.095	21	63.779	-	-	-	-	-	-	3,060.143	7	21.421	-	-	-	3,060.143	7	21.421
DVH A1 ECP Engineer Squad Vehicle ^(†)	2,884.250	16	46.148	-	-	-	-	-	-	3,113.800	10	31.138	-	-	-	3,113.800	10	31.138
DVH A1 ECP Commander's Vehicle ^(†)	2,732.750	40	109.310	3,040.833	12	36.490	3,017.889	18	54.322	3,194.800	5	15.974	-	-	-	3,194.800	5	15.974
DVH A1 ECP Medical Evacuation Vehicle ^(†)	2,762.366	41	113.257	2,833.600	5	14.168	-	-	-	3,057.636	22	67.268	-	-	-	3,057.636	22	67.268
DVH A1 30MM Lethality Vehicle ^(†)	-	-	-	-	-	-	-	-	-	6,497.214	42	272.883	-	-	-	6,497.214	42	272.883
Program Management Support (Govt)	-	-	62.501	-	-	18.229	-	-	35.041	-	-	36.267	-	-	-	-	-	36.267

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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:
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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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)	-	-	22.469	-	-	2.462	-	-	0.836	-	-	0.320	-	-	-	-	-	0.320
<i>Subtotal: Recurring Cost</i>	-	-	1,293.686	-	-	238.297	-	-	447.699	-	-	645.283	-	-	-	-	-	645.283
<i>Subtotal: Flyaway Cost</i>	-	-	1,293.686	-	-	238.297	-	-	447.699	-	-	645.283	-	-	-	-	-	645.283
Hardware Cost																		
Recurring Cost																		
Fleet Modifications	-	-	-	-	-	-	-	-	-	-	-	1.319	-	-	-	-	-	1.319
CROWS-J ECP	-	-	-	-	-	-	-	-	-	-	-	39.160	-	-	-	-	-	39.160
ATGM ECP	-	-	-	-	-	-	-	-	-	-	-	26.908	-	-	-	-	-	26.908
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	67.387	-	-	-	-	-	67.387
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	-	-	-	67.387	-	-	-	-	-	67.387
Package Fielding Cost																		
Recurring Cost																		
System Fielding Support - DVH A1	-	-	63.144	-	-	6.905	-	-	31.627	-	-	35.145	-	-	-	-	-	35.145
<i>Subtotal: Recurring Cost</i>	-	-	63.144	-	-	6.905	-	-	31.627	-	-	35.145	-	-	-	-	-	35.145
Non Recurring Cost																		
Authorized Stockage List - DVH A1	-	-	61.567	-	-	10.020	-	-	18.220	-	-	37.835	-	-	-	-	-	37.835
<i>Subtotal: Non Recurring Cost</i>	-	-	61.567	-	-	10.020	-	-	18.220	-	-	37.835	-	-	-	-	-	37.835
<i>Subtotal: Package Fielding Cost</i>	-	-	124.711	-	-	16.925	-	-	49.847	-	-	72.980	-	-	-	-	-	72.980
Logistics Cost																		
Recurring Cost																		
Retrofit Planning and Site Management	-	-	-	-	-	-	-	-	-	-	-	8.973	-	-	-	-	-	8.973
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	8.973	-	-	-	-	-	8.973
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	-	-	-	8.973	-	-	-	-	-	8.973
Support - Support Equipment Cost																		
Maintenance Equipment	-	-	2.137	-	-	-	-	-	0.321	-	-	1.798	-	-	-	-	-	1.798
<i>Subtotal: Support - Support Equipment Cost</i>	-	-	2.137	-	-	-	-	-	0.321	-	-	1.798	-	-	-	-	-	1.798
Support - System Engineering Cost																		
System Engineering	-	-	41.556	-	-	10.068	-	-	15.991	-	-	17.301	-	-	-	-	-	17.301
<i>Subtotal: Support - System Engineering Cost</i>	-	-	41.556	-	-	10.068	-	-	15.991	-	-	17.301	-	-	-	-	-	17.301

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Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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	-	-	-	-	-	-	-	-	-	-	-	10.638	-	-	-	-	-	10.638
Test and Evaluation Support	-	-	-	-	-	-	-	-	-	-	-	4.864	-	-	-	-	-	4.864
<i>Subtotal: Support - System Test and Evaluation Cost</i>	-	-	-	-	-	-	-	-	-	-	-	15.502	-	-	-	-	-	15.502
Support - Training Cost																		
Equipment	-	-	-	-	-	-	-	-	-	-	-	17.988	-	-	-	-	-	17.988
<i>Subtotal: Support - Training Cost</i>	-	-	-	-	-	-	-	-	-	-	-	17.988	-	-	-	-	-	17.988
Gross/Weapon System Cost	3,322.932	440	1,462.090	3,235.244	82	265.290	3,593.413	143	513.858	5,501.377	154	847.212	-	-	-	5,501.377	154	847.212

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	82	143	154	-	154
	Total Obligation Authority	265.290	513.858	847.212	-	847.212
Total: Secondary Distribution	Quantity	82	143	154	-	154
	Total Obligation Authority	265.290	513.858	847.212	-	847.212

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

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
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 ^(†)		2017	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2018	Apr 2019	30	2,894.000	Y		
DVH A1 ECP Infantry Carrier Vehicle ^(†)		2017	GM GDLS Defense Group L.L.C. / Shelby Twp	SS / FFP	TACOM	Aug 2017	Aug 2018	34	2,894.000	Y		
DVH A1 ECP Infantry Carrier Vehicle ^(†)		2018	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Jun 2018	Jul 2019	134	2,514.157	Y		
DVH A1 ECP Infantry Carrier Vehicle ^(†)		2019	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Oct 2018	Oct 2020	49	2,520.449	Y		
DVH A1 ECP Infantry Carrier Vehicle ^(†)		2020	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2020	May 2021	114	2,836.105	Y		
DVH A1 ECP Infantry Carrier Vehicle ^(†)		2021	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2021	May 2022	51	2,880.725	Y		
DVH A1 ECP Anti-Tank Guided Missile Veh ^(†)		2017	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Aug 2017	Feb 2019	5	3,162.800	Y		
DVH A1 ECP Anti-Tank Guided Missile Veh ^(†)		2018	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Jun 2018	Feb 2020	3	4,384.333	Y		
DVH A1 ECP Anti-Tank Guided Missile Veh ^(†)		2021	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2021	Jan 2023	7	3,078.286	Y		
DVH A1 ECP Mortar Carrier Vehicle ^(†)		2017	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Aug 2017	Jan 2019	6	3,245.000	Y		
DVH A1 ECP Mortar Carrier Vehicle ^(†)		2018	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Jun 2018	Dec 2019	21	2,936.524	Y		
DVH A1 ECP Mortar Carrier Vehicle ^(†)		2019	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Oct 2018	Jan 2021	16	2,715.375	Y		
DVH A1 ECP Mortar Carrier Vehicle ^(†)		2020	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2020	Nov 2021	11	3,107.636	Y		
DVH A1 ECP Mortar Carrier Vehicle ^(†)		2021	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2021	Feb 2023	10	3,154.700	Y		
DVH A1 ECP Fire Support Vehicle ^(†)		2017	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Aug 2017	Jan 2019	8	3,166.130	Y		
DVH A1 ECP Fire Support Vehicle ^(†)		2018	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Jun 2018	Jan 2020	8	3,109.250	Y		
DVH A1 ECP Fire Support Vehicle ^(†)		2021	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2021	May 2022	7	3,060.143	N		

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

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 (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
DVH A1 ECP Engineer Squad Vehicle ^(†)		2017	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Aug 2017	Nov 2018	7	3,080.860	Y		
DVH A1 ECP Engineer Squad Vehicle ^(†)		2018	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Jun 2018	Nov 2019	4	4,012.000	Y		
DVH A1 ECP Engineer Squad Vehicle ^(†)		2021	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2021	Jun 2022	10	3,113.800	N		
DVH A1 ECP Commander's Vehicle ^(†)		2017	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Aug 2017	Sep 2018	10	3,229.500	Y		
DVH A1 ECP Commander's Vehicle ^(†)		2018	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Jun 2018	Oct 2019	14	2,968.500	Y		
DVH A1 ECP Commander's Vehicle ^(†)		2019	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Oct 2018	Apr 2020	12	3,040.833	Y		
DVH A1 ECP Commander's Vehicle ^(†)		2020	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2020	May 2021	18	3,017.889	Y		
DVH A1 ECP Commander's Vehicle ^(†)		2021	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2021	Sep 2022	5	3,194.800	Y		
DVH A1 ECP Medical Evacuation Vehicle ^(†)		2018	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Jun 2018	Jun 2019	23	2,871.522	Y		
DVH A1 ECP Medical Evacuation Vehicle ^(†)		2019	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Oct 2018	Jul 2020	5	2,833.600	N		
DVH A1 ECP Medical Evacuation Vehicle ^(†)		2021	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Mar 2021	Aug 2022	22	3,057.636	Y		
DVH A1 30MM Lethality Vehicle ^(†)		2021	TBD / TBD	SS / Various	TACOM	Mar 2021	Nov 2022	42	6,497.214	Y		

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

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 (Units in Each)				Fiscal Year 2019													Fiscal Year 2020													BALANCE			
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P		
DVH A1 ECP Infantry Carrier Vehicle																																	
Prior Years Deliveries: 64																																	
	1	2017	ARMY	30	0	30	-	-	-	-	-	-	11	10	9																		0
	2	2017	ARMY	34	7	27	6	6	6	5	4																					0	
	1	2018	ARMY	134	0	134	-	-	-	-	-	-	-	-	9	9	9	6	6	8	7	8	6	10	9	10	9	10	9			9	9
	1	2019	ARMY	49	0	49	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	
	1	2020	ARMY	114	0	114																										114	
	1	2021	ARMY	51	0	51																										51	
DVH A1 ECP Anti-Tank Guided Missile Veh																																	
Prior Years Deliveries: 5																																	
	3	2017	ARMY	5	0	5	-	-	-	-	2	3																				0	
	3	2018	ARMY	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2						0	
	3	2021	ARMY	7	0	7																										7	
DVH A1 ECP Mortar Carrier Vehicle																																	
Prior Years Deliveries: 20																																	
	4	2017	ARMY	6	0	6	-	-	-	3	2	1																				0	
	4	2018	ARMY	21	0	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	4	2	-	-	-	-	-	-	-	8	
	4	2019	ARMY	16	0	16	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16		
	4	2020	ARMY	11	0	11																										11	
	4	2021	ARMY	10	0	10																										10	
DVH A1 ECP Fire Support Vehicle																																	
Prior Years Deliveries: 5																																	
	5	2017	ARMY	8	0	8	-	-	-	2	2	4																				0	
	5	2018	ARMY	8	0	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	6	
	5	2021	ARMY	7	0	7																										7	
DVH A1 ECP Engineer Squad Vehicle																																	
Prior Years Deliveries: 5																																	
	6	2017	ARMY	7	0	7	-	3	4																							0	
	6	2018	ARMY	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2								0	
	6	2021	ARMY	10	0	10																										10	
DVH A1 ECP Commander's Vehicle																																	
Prior Years Deliveries: 16																																	
	7	2017	ARMY	10	5	5	4	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 2021 Army **Date:** February 2020

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 <i>(Units in Each)</i>					Fiscal Year 2019													Fiscal Year 2020													BALANCE				
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
	7	2018	ARMY	14	0	14	-	-	-	-	-	-	-	-	-	-	-	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
	7	2019	ARMY	12	0	12	A-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
	7	2020	ARMY	18	0	18																												18	
	7	2021	ARMY	5	0	5																												5	
DVH A1 ECP Medical Evacuation Vehicle																																			
Prior Years Deliveries: 18																																			
	8	2018	ARMY	23	0	23	-	-	-	-	-	-	-	-	2	4	4	4	3	-	-	-	-	-	-	-	-	-	-	3	1	2		0	
	8	2019	ARMY	5	0	5	A-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	4
	8	2021	ARMY	22	0	22																													22
DVH A1 30MM Lethality Vehicle																																			
	9	2021	ARMY	42	0	42																													42
							O C T	N O V	D E C	J A N	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 2021 Army **Date:** February 2020

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 (Units in Each)					Fiscal Year 2021													Fiscal Year 2022												BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P	
DVH A1 ECP Infantry Carrier Vehicle																																
Prior Years Deliveries: 64																																
	1	2017	ARMY	30	30	0																							0			
	2	2017	ARMY	34	34	0																							0			
	1	2018	ARMY	134	125	9	9																						0			
	1	2019	ARMY	49	0	49	1	9	10	9	10	10																	0			
	1	2020	ARMY	114	0	114	-	-	-	-	-	-	-	9	9	9	9	9	9	10	9	10	10	10	10	11			0			
	1	2021	ARMY	51	0	51							A	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	8	8	8	11
DVH A1 ECP Anti-Tank Guided Missile Veh																																
Prior Years Deliveries: 5																																
	3	2017	ARMY	5	5	0																							0			
	3	2018	ARMY	3	3	0																							0			
	3	2021	ARMY	7	0	7							A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7		
DVH A1 ECP Mortar Carrier Vehicle																																
Prior Years Deliveries: 20																																
	4	2017	ARMY	6	6	0																							0			
	4	2018	ARMY	21	13	8	1	4	3																				0			
	4	2019	ARMY	16	0	16	-	-	-	4	3	4	5																0			
	4	2020	ARMY	11	0	11	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	1					0			
	4	2021	ARMY	10	0	10							A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10			
DVH A1 ECP Fire Support Vehicle																																
Prior Years Deliveries: 5																																
	5	2017	ARMY	8	8	0																							0			
	5	2018	ARMY	8	2	6	2	-	-	-	-	-	4																0			
	5	2021	ARMY	7	0	7							A	-	-	-	-	-	-	-	-	-	-	-	-	4	3		0			
DVH A1 ECP Engineer Squad Vehicle																																
Prior Years Deliveries: 5																																
	6	2017	ARMY	7	7	0																							0			
	6	2018	ARMY	4	4	0																							0			
	6	2021	ARMY	10	0	10							A	-	-	-	-	-	-	-	-	-	-	-	-	1	5	4	0			
DVH A1 ECP Commander's Vehicle																																
Prior Years Deliveries: 16																																
	7	2017	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 2021 Army	Date: February 2020
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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 <i>(Units in Each)</i>						Fiscal Year 2021															Fiscal Year 2022												BALANCE							
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021															Calendar Year 2022																		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P										
	7	2018	ARMY	14	14	0																																		0
	7	2019	ARMY	12	12	0																																		0
	7	2020	ARMY	18	0	18	-	-	-	-	-	-	-	3	3	3	3	3	3																				0	
	7	2021	ARMY	5	0	5								A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3		
DVH A1 ECP Medical Evacuation Vehicle																																								
Prior Years Deliveries: 18																																								
	8	2018	ARMY	23	23	0																																0		
	8	2019	ARMY	5	1	4	-	-	-	-	-	-	-	4																								0		
	8	2021	ARMY	22	0	22								A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	18		
DVH A1 30MM Lethality Vehicle																																								
	9	2021	ARMY	42	0	42								A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		42		
							O C T	N O V	D E C	J A N	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 2021 Army **Date:** February 2020

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 2023												Fiscal Year 2024												BALANCE	
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
DVH A1 ECP Infantry Carrier Vehicle																															
Prior Years Deliveries: 64																															
	1	2017	ARMY	30	30	0																							0		
	2	2017	ARMY	34	34	0																							0		
	1	2018	ARMY	134	134	0																							0		
	1	2019	ARMY	49	49	0																							0		
	1	2020	ARMY	114	114	0																							0		
	1	2021	ARMY	51	40	11			7		4																		0		
DVH A1 ECP Anti-Tank Guided Missile Veh																															
Prior Years Deliveries: 5																															
	3	2017	ARMY	5	5	0																							0		
	3	2018	ARMY	3	3	0																							0		
	3	2021	ARMY	7	0	7			-		-			-			2			2			2					1	0		
DVH A1 ECP Mortar Carrier Vehicle																															
Prior Years Deliveries: 20																															
	4	2017	ARMY	6	6	0																							0		
	4	2018	ARMY	21	21	0																							0		
	4	2019	ARMY	16	16	0																							0		
	4	2020	ARMY	11	11	0																							0		
	4	2021	ARMY	10	0	10			-		-			-			3			3			4						0		
DVH A1 ECP Fire Support Vehicle																															
Prior Years Deliveries: 5																															
	5	2017	ARMY	8	8	0																							0		
	5	2018	ARMY	8	8	0																							0		
	5	2021	ARMY	7	7	0																							0		
DVH A1 ECP Engineer Squad Vehicle																															
Prior Years Deliveries: 5																															
	6	2017	ARMY	7	7	0																							0		
	6	2018	ARMY	4	4	0																							0		
	6	2021	ARMY	10	10	0																							0		
DVH A1 ECP Commander's Vehicle																															
Prior Years Deliveries: 16																															
	7	2017	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

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Exhibit P-21, Production Schedule: PB 2021 Army	Date: February 2020
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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 <i>(Units in Each)</i>						Fiscal Year 2023												Fiscal Year 2024												BALANCE	
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
	7	2018	ARMY	14	14	0																								0	
	7	2019	ARMY	12	12	0																								0	
	7	2020	ARMY	18	18	0																								0	
	7	2021	ARMY	5	2	3	3																							0	
DVH A1 ECP Medical Evacuation Vehicle																															
Prior Years Deliveries: 18																															
	8	2018	ARMY	23	23	0																								0	
	8	2019	ARMY	5	5	0																								0	
	8	2021	ARMY	22	4	18	3	5	5	5	5																			0	
DVH A1 30MM Lethality Vehicle																															
	9	2021	ARMY	42	0	42	-	4	8	6	8	8																		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 2021 Army		Date: February 2020
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 2021	1-8-5 For 2021	MAX For 2021	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	10	40	60	12	12	11	23	6	2	11	13
2	GM GDLS Defense Group L.L.C. - Shelby Twp	10	40	60	12	12	13	25	6	2	11	13
3	GM GDLS Defense Group L.L.C. - Shelby Township	10	40	60	12	12	11	23	6	2	11	13
4	GM GDLS Defense Group L.L.C. - Shelby Township	10	40	60	12	12	11	23	6	2	11	13
5	GM GDLS Defense Group L.L.C. - Shelby Township	10	40	60	12	12	11	23	6	2	11	13
6	GM GDLS Defense Group L.L.C. - Shelby Township	10	40	60	12	12	11	23	6	2	11	13
7	GM GDLS Defense Group L.L.C. - Shelby Township	10	40	60	12	12	11	23	6	2	11	13
8	GM GDLS Defense Group L.L.C. - Shelby Township	10	40	60	12	12	11	23	6	2	11	13
9	TBD - TBD	10	40	60	12	5	20	25	6	2	15	17

Remarks:
 Lead time for Stryker DVH A1 variants is 11-13 months.
 Lead time for FY21 DVH A1 30mm Lethality is 20 months due to synchronization of the DVH A1 platform and 30mm Mission Equipment Package integration.*****

"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 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	5,954.388	514.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	5,954.388	514.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	5,954.388	514.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562	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>)	29,477.168	5,653.011	3,247.969	6,945.197	-	6,945.197	5,773.432	4,355.217	-	-	Continuing	Continuing

Description:

Bradley Program (MOD) procures upgrades to the Bradley Fighting Vehicle. There are two ECPs in this program: Track and Suspension (formerly ECP 1) and the A4 Mobility ECP (formerly ECP 2). The Track and Suspension ECP improves the vehicle fleet's suspension increasing underbelly clearance and provides extended life track. The A4 Mobility ECP addresses space, weight, and power-cooling issues with an improved powertrain and electrical system. The A4 Mobility ECP also enables the Bradley to host inbound technologies from other Army Programs of Record, such as, but not limited to the Integrated Tactical Network (ITN) and support for the Individual Visual Augmentation System (IVAS). The Bradley M2A4 and M7A4 Vehicles are the combination of the A3 or ODS-SA Base Vehicle with ECP 1 and A4 components installed and integrated. Additionally, the Bradley Program (MOD) procures underbelly armor kits, upgraded training systems, and other upgrades, including but not limited to high priority improvements, modification kits for other Army programs such as the ITN and IVAS, and obsolescence mitigation.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	495.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562
ANG	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	19.000	-	-	-	-	-	-	-	-
Total: Secondary Distribution	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	514.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		- / 5,954.388	- / 514.424	- / 415.740	- / 493.109	- / -	- / 493.109
P-40	Total Gross/Weapon System Cost				- / 5,954.388	- / 514.424	- / 415.740	- / 493.109	- / -	- / 493.109

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	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		- / 467.648	- / 261.313	- / 54.993	- / 30.562	Continuing	Continuing
P-40	Total Gross/Weapon System Cost				- / 467.648	- / 261.313	- / 54.993	- / 30.562	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 2021 Base procurement dollars in the amount of \$493.109 million supports procurement of multiple modifications to the Bradley vehicles including the following: procurement and installation of the Track and Suspension ECP, procurement and fielding of M2A4 vehicles, upgrades to the Bradley Fire Support Team vehicle, procurement of training devices, and procurement of safety upgrades. Current projections indicate the Bradley Fighting Vehicle and the Bradley Fire Support Vehicle will remain in the ABCT formation until the 2050s.

In FY 2021, \$0.801 million in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

MOD 10 (Survivability Enhancements) decrease from FY 2020 to FY 2021 is due to the elimination of production and fielding of Active Production System (APS) to 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.

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Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	5,954.388	514.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	5,954.388	514.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	5,954.388	514.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562	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)	29,477.168	5,653.011	3,247.969	6,945.197	-	6,945.197	5,773.432	4,355.217	-	-	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, improve safety, integrate new equipment, develop and integrate mod kits, and bring the vehicles into compliance with transportability and recovery requirements. Provides funding to maintain software versions and update integrated logistics products.

MOD 3 (Training Equipment Devices) - Provides funding to support procurement and fielding of BFV Training Aids, Devices, Simulators and Simulations (TADSS). Funding supports system training devices that are required to remain current with upgraded fleet configuration/capabilities.

MOD 5 (Program/Engineering Support) - Program/Engineering Support includes both government & contractor program management support to oversee program planning & procurement of 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 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 engineering support related to production. The A4 Bradley improves the powertrain and electrical system to enable the current fleet to host inbound technologies from Army Programs of Record resulting in an M2A4 / M7A4. Costs associated with kit installations are included in the funding for the prime hardware contracts.

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.

MOD 11 (Other) - Administratively captures Congressional actions.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	495.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562

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Exhibit P-3a, Individual Modification: PB 2021 Army							Date: February 2020			
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:					
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	19.000	-	-	-	-	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	514.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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 11: 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 11: 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	- / 235.640	- / 37.963	- / 43.899	- / 31.371	- / -	- / 31.371	- / 30.694	- / 33.218	- / 16.723	- / 19.395	Continuing	Continuing	
Urban Survivability Mods	5,276 / 2,098.985	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5,276 / 2,098.985	
Subtotal: Recurring	9,684 / 2,438.495	- / 37.963	- / 43.899	- / 31.371	- / -	- / 31.371	- / 30.694	- / 33.218	- / 16.723	- / 19.395	Continuing	Continuing	
Subtotal: BFVS High Priority Improvements	9,684 / 2,438.495	- / 37.963	- / 43.899	- / 31.371	- / -	- / 31.371	- / 30.694	- / 33.218	- / 16.723	- / 19.395	Continuing	Continuing	
Modification Item 3 of 11: Training Equipment Devices													
A Kits													
Recurring													
Training Equipment	- / 123.960	- / 2.660	- / 1.300	- / 12.981	- / -	- / 12.981	- / 43.597	- / 1.840	- / 1.884	- / 1.929	- / -	- / 190.151	
Subtotal: Recurring	- / 123.960	- / 2.660	- / 1.300	- / 12.981	- / -	- / 12.981	- / 43.597	- / 1.840	- / 1.884	- / 1.929	- / -	- / 190.151	
Subtotal: Training Equipment Devices	- / 123.960	- / 2.660	- / 1.300	- / 12.981	- / -	- / 12.981	- / 43.597	- / 1.840	- / 1.884	- / 1.929	- / -	- / 190.151	
Modification Item 4 of 11: ODS Situational Awareness													
A Kits													
Recurring													
ODS Situational Awareness	770 / 1,199.553	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	770 / 1,199.553	

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Exhibit P-3a, Individual Modification: PB 2021 Army											Date: February 2020		
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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)	
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 11: Program/Engineering Support													
A Kits													
Recurring													
Government PM support	- / 160.793	- / 22.303	- / 19.615	- / 20.157	- / -	- / 20.157	- / 20.594	- / 15.425	- / 11.832	- / 7.388	Continuing	Continuing	
Contractor PM Support	- / 117.389	- / 2.127	- / 15.127	- / 15.050	- / -	- / 15.050	- / 15.150	- / 3.860	- / 2.960	- / 1.850	Continuing	Continuing	
Subtotal: Recurring	- / 278.182	- / 24.430	- / 24.742	- / 25.207	- / -	- / 25.207	- / 25.744	- / 19.285	- / 14.792	- / 9.238	Continuing	Continuing	
Subtotal: Program/Engineering Support	- / 278.182	- / 24.430	- / 24.742	- / 25.207	- / -	- / 25.207	- / 25.744	- / 19.285	- / 14.792	- / 9.238	Continuing	Continuing	
Modification Item 6 of 11: BFVS Track and Suspension Upgrade													
A Kits													
Recurring													
BFVS ECP 1 Modification	1,701 / 318.941	414 / 67.993	414 / 71.838	414 / 76.475	- / -	414 / 76.475	401 / 75.258	- / -	- / -	- / -	- / -	3,344 / 610.505	
Subtotal: Recurring	1,701 / 318.941	414 / 67.993	414 / 71.838	414 / 76.475	- / -	414 / 76.475	401 / 75.258	- / -	- / -	- / -	- / -	3,344 / 610.505	
Subtotal: BFVS Track and Suspension Upgrade	1,701 / 318.941	414 / 67.993	414 / 71.838	414 / 76.475	- / -	414 / 76.475	401 / 75.258	- / -	- / -	- / -	- / -	3,344 / 610.505	
Modification Item 7 of 11: BFVS Mobility Modification													
A Kits													
Recurring													
BFVS A4 Modification	202 / 551.011	10 / 64.308	80 / 273.961	73 / 307.075	- / -	73 / 307.075	66 / 292.355	45 / 206.970	- / 21.594	- / -	- / -	476 / 1,717.274	
Subtotal: Recurring	202 / 551.011	10 / 64.308	80 / 273.961	73 / 307.075	- / -	73 / 307.075	66 / 292.355	45 / 206.970	- / 21.594	- / -	- / -	476 / 1,717.274	
Subtotal: BFVS Mobility Modification	202 / 551.011	10 / 64.308	80 / 273.961	73 / 307.075	- / -	73 / 307.075	66 / 292.355	45 / 206.970	- / 21.594	- / -	- / -	476 / 1,717.274	
Modification Item 8 of 11: Conversion to M2													
A Kits													
Recurring													
Conversion M3-M2	195 / 132.245	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 132.245	
Fielding	- / 15.942	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.942	
Subtotal: Recurring	195 / 138.187	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 138.187	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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: Conversion to M2</i>	195 / 138.187	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 138.187	
Modification Item 9 of 11: 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 11: Survivability Enhancements													
B Kits													
Recurring													
Underbelly Interium Solution (UBIS)	- / -	- / -	- / -	276 / 40.000	- / -	276 / 40.000	- / -	- / -	- / -	- / -	- / -	276 / 40.000	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	276 / 40.000	- / -	276 / 40.000	- / -	- / -	- / -	- / -	- / -	276 / 40.000	
<i>Subtotal: Survivability Enhancements</i>	- / -	- / -	- / -	276 / 40.000	- / -	276 / 40.000	- / -	- / -	- / -	- / -	- / -	276 / 40.000	
Modification Item 11 of 11: Other													
A Kits													
Non-Recurring													
Rescissions	- / 31.775	- / 317.070	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 348.845	
<i>Subtotal: Non-Recurring</i>	- / 31.775	- / 317.070	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 348.845	
<i>Subtotal: Other</i>	- / 31.775	- / 317.070	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 348.845	
<i>Subtotal: Procurement, All Modification Items</i>	15,494 / 5,954.388	424 / 514.424	494 / 415.740	763 / 493.109	- / -	763 / 493.109	467 / 467.648	45 / 261.313	- / 54.993	- / 30.562	Continuing	Continuing	
Installation													
Modification Item 6 of 11: BFVS Track and Suspension Upgrade	1,701 / -	414 / -	414 / -	414 / -	- / -	414 / -	401 / -	- / -	- / -	- / -	- / -	3,344 / -	
Modification Item 7 of 11: BFVS Mobility Modification	- / -	- / -	85 / -	127 / -	- / -	127 / -	124 / -	95 / -	45 / -	- / -	- / -	476 / -	
Modification Item 8 of 11: Conversion to M2	195 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / -	
Modification Item 10 of 11: Survivability Enhancements	- / -	- / -	- / -	- / -	- / -	- / -	276 / -	- / -	- / -	- / -	- / -	276 / -	
<i>Subtotal: Installation</i>	1,896 / -	414 / -	499 / -	541 / -	- / -	541 / -	801 / -	95 / -	45 / -	- / -	- / -	4,291 / -	
Total													

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

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:**

Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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)	5,954.388	514.424	415.740	493.109	-	493.109	467.648	261.313	54.993	30.562	Continuing	Continuing

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
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 11: Bradley Reactive Armor							
Manufacturer Information							
Manufacturer Name: GDATP				Manufacturer Location: Burlington, VT			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Contractor					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
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 2 of 11: BFVS High Priority Improvements							
Manufacturer Information							
Manufacturer Name: BAE				Manufacturer Location: YORK, PA			
Administrative Leadtime (in Months): 5				Production Leadtime (in Months): 12			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023	Mar 2024	Mar 2025
Delivery Dates	Mar 2020	Mar 2021	Mar 2022	Mar 2023	Mar 2024	Mar 2025	Mar 2026
Installation Information							
Method of Implementation (Organic): Contractor					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
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 3 of 11: Training Equipment Devices							
Manufacturer Information							
Manufacturer Name: Oasis				Manufacturer Location: AUBURN HILLS, MI			
Administrative Leadtime (<i>in Months</i>): 4				Production Leadtime (<i>in Months</i>): 12			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Feb 2019	Feb 2020	Feb 2021	Feb 2022	Feb 2023	Feb 2024	Feb 2025
Delivery Dates	Feb 2020	Feb 2021	Feb 2022	Feb 2023	Feb 2024	Feb 2025	Feb 2026
Installation Information							
Method of Implementation (Organic): Contractor					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
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 11: ODS Situational Awareness							
Manufacturer Information							
Manufacturer Name: BAE				Manufacturer Location: YORK, PA			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Contractor					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
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 11: 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 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023	Dec 2024
Delivery Dates	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024	Jan 2025
Installation Information							
Method of Implementation (Organic): x					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
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 11: 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 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Jun 2019	Dec 2019	Dec 2020	Dec 2021			
Delivery Dates	Dec 2019	Jan 2021	Jan 2022	Jan 2023			

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	1,701 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,701 / 0.000
FY 2019	- / -	414 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	414 / 0.000
FY 2020	- / -	- / -	414 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	414 / 0.000
FY 2021	- / -	- / -	- / -	414 / 0.000	- / -	414 / 0.000	- / -	- / -	- / -	- / -	- / -	414 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	401 / 0.000	- / -	- / -	- / -	- / -	401 / 0.000
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1,701 / 0.000	414 / 0.000	414 / 0.000	414 / 0.000	- / -	414 / 0.000	401 / 0.000	- / -	- / -	- / -	- / -	3,344 / 0.000

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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	1,701	-	-	396	-	432	-	-	-	414	-	-	-	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,344
Out	1,080	87	86	103	69	87	86	104	104	103	103	103	104	104	103	103	104	104	103	103	100	100	100	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,344

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Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
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 7 of 11: BFVS Mobility Modification

Manufacturer Information

Manufacturer Name: BAE	Manufacturer Location: York, PA
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 11

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Apr 2020	Apr 2020	Apr 2021	Mar 2022	Apr 2023		
Delivery Dates	Jul 2021	Dec 2021	Jun 2022	Jan 2023	Oct 2023		

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	- / -	- / -	85 / 0.000	117 / 0.000	- / -	117 / 0.000	- / -	- / -	- / -	- / -	- / -	202 / 0.000
FY 2019	- / -	- / -	- / -	10 / 0.000	- / -	10 / 0.000	- / -	- / -	- / -	- / -	- / -	10 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	80 / 0.000	- / -	- / -	- / -	- / -	80 / 0.000
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	44 / 0.000	29 / 0.000	- / -	- / -	- / -	73 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	66 / 0.000	- / -	- / -	- / -	66 / 0.000
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	45 / 0.000	- / -	- / -	45 / 0.000
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	85 / 0.000	127 / 0.000	- / -	127 / 0.000	124 / 0.000	95 / 0.000	45 / 0.000	- / -	- / -	476 / 0.000

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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	-	-	28	28	29	32	32	32	31	31	31	31	31	24	24	24	23	23	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	28	28	29	32	32	32	31	31	31	31	31	24	24	24	23	23	22	-	-	-	-	-	-	-	-	-	-

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Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

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 11: Conversion to M2

Manufacturer Information

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

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	195 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 0.000

Installation Schedule

PYS	FY 2019	FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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						
In	195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	195
Out	195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	195

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
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 11: Braking Safety/Transmission Industrial Base							
Manufacturer Information							
Manufacturer Name: L3COM				Manufacturer Location: MUSKEGON, MI			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Contractor					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
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 11: Survivability Enhancements

Manufacturer Information

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

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Aug 2020				
Delivery Dates			Feb 2022				

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	276 / 0.000	- / -	- / -	- / -	- / -	276 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	276 / 0.000	- / -	- / -	- / -	- / -	276 / 0.000

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	69	69	69	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
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 11 of 11: Other							
Manufacturer Information							
Manufacturer Name: N/A				Manufacturer Location: N/A			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Rescissions					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,119.814	26.482	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849	-	2,814.767
Less PY Advance Procurement (<i>\$ in Millions</i>)	16.321	-	-	-	-	-	-	-	-	-	-	16.321
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,103.493	26.482	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849	-	2,798.446
Plus CY Advance Procurement (<i>\$ in Millions</i>)	16.321	-	-	-	-	-	-	-	-	-	-	16.321
Total Obligation Authority (<i>\$ in Millions</i>)	2,119.814	26.482	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849	-	2,814.767

(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 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 SPH and M992A3 Carrier, Ammunition, Tracked (CAT) as well as the Extended Range Cannon Artillery (ERCA) capability for the Self Propelled family of Howitzers. The funding profile provides for the engineering design, testing, HW 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 production of ERCA (XM1299) and all aspects of program management necessary to support the field fleet of 689 SPHs and 689 FAASVs/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. ECPs will be applied as through a modification work order and procured for the M109 FOV.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	15.889	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	10.593	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	26.482	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		- / 2,119.814	- / 26.482	- / 25.756	- / 26.893	- / -	- / 26.893
P-40	Total Gross/Weapon System Cost				- / 2,119.814	- / 26.482	- / 25.756	- / 26.893	- / -	- / 26.893

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	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		- / 80.337	- / 122.886	- / 158.750	- / 253.849	- / -	- / 2,814.767
P-40	Total Gross/Weapon System Cost				- / 80.337	- / 122.886	- / 158.750	- / 253.849	- / -	- / 2,814.767

*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 2021 base procurement funding in the amount of \$26.893 million supports M109 Family of Vehicles (FOV) modifications, Program Office requirements and 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 management of the Army's M109 FOV Combat Vehicle Evaluation (CVE) program; provides quality process management of production for M109 FOV Depot Overhaul operations; 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 the 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.

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.

"In FY 2021, \$.178 million in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments."

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Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
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:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,119.814	26.482	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849	-	2,814.767
Less PY Advance Procurement (\$ in Millions)	16.321	-	-	-	-	-	-	-	-	-	-	16.321
Net Procurement (P-1) (\$ in Millions)	2,103.493	26.482	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849	-	2,798.446
Plus CY Advance Procurement (\$ in Millions)	16.321	-	-	-	-	-	-	-	-	-	-	16.321
Total Obligation Authority (\$ in Millions)	2,119.814	26.482	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849	-	2,814.767

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

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

Description:

M109 FOV Program Office [MOD 1]: Government System Engineering and Program Management support for the M109 FOV program. Provides 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 management of the Army's M109 FOV Combat Vehicle Evaluation (CVE) program; provides quality process management of production for M109 FOV Depot Overhaul operations; provides planning and execution for obsolescence of parts, sub-systems and systems; develop and coordinate shrinking supply base mitigation strategies with item managers; provides management of Software Support. Manages the Systems Technical Support (STS) contract that provides the direct support to the program and the field.

M109 FOV System Technical Support, Contract [MOD 2]: Funding supports contractor engineering efforts required to design and produce material solutions/changes to the M109 FOV fielded systems; provides the logistical support to provision, source, and supply the field with the 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 essential for mission accomplishment.

CREW II A-Kit HW and Fielding [MOD 3]: To complete CREW DUKE v2 A-Kits fielding across the remainder of the M109 Family of Vehicles (FOV) fleet. (Complete)

Breach (Phase II) HW and Fielding [MOD 5]: Paladin Breach reliability fixes, as they pertain to the impacts of Modular Artillery Charge System (MACS) propellant on the gun system, is intended to improve the reliability of the current gun systems in fielded Fires Battalions. These fixes improve breach opening and closing when firing High Zone MACS propellant charges in combat and training. (Ongoing)

Gun Mount Ballistic Shield (GMBS) Rotor Shield [MOD 6]: Funding supports survivability shortfalls in the M109 FOV gun mount area. This mod increases the armor protection of the M182 Gun Mount Recoil Mechanism as well as provide additional crew protection for small arms direct fire. (Complete)

Int. Blast Mitigation Retrofit HW/Fielding (M109A7) [MOD 7]: Procures and installs improved floor mat and ammo restraints to prevent those objects from becoming secondary projectiles in an underbody blast event. (Ongoing)

Alternative Transmission and Electrical Fan Integration [MOD 8]: Funding supports continued engineering and characterization analysis, procurement, and competition support activities required to maintain commonality with Bradley IFV. (Complete)

Chief of Section protection (Increment I) HW and Fielding [MOD 9]: 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.

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Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

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:**

ERCA INC 2 (XM1299A1) [MOD 10]: Production of ERCA INC 2, which will improve lethality through several upgrades to rate of fire, mobility, survivability and reliability.

Undersponson Retrofit [MOD 11]: Procures and installs updated Threshold 2 undersponson armor panels to replace the existing base vehicle (Threshold 1) undersponson armor panels.

Ventilation System Improvement Retrofit [MOD 12]: Procure/retrofit hardware to integrate pre-filtration design that reduces frequency of ventilation system clogging.

SPH Crew Compartment AFES Retrofit HW & Fielding [MOD 13]: Procure/retrofit hardware to expand to full crew compartment coverage from personnel heater coverage.

	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	15.889	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	10.593	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	26.482	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849

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Exhibit P-3a, Individual Modification: PB 2021 Army											Date: February 2020		
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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 FOV Program Office													
A Kits													
Recurring													
PM Support	- / 13.151	- / 3.105	- / 0.958	- / 0.978	- / -	- / 0.978	- / 0.997	- / -	- / -	- / -	- / -	- / 19.189	
<i>Subtotal: Recurring</i>	- / 13.151	- / 3.105	- / 0.958	- / 0.978	- / -	- / 0.978	- / 0.997	- / -	- / -	- / -	- / -	- / 19.189	
<i>Subtotal: M109 FOV Program Office</i>	- / 13.151	- / 3.105	- / 0.958	- / 0.978	- / -	- / 0.978	- / 0.997	- / -	- / -	- / -	- / -	- / 19.189	
Modification Item 2 of 13: M109 FOV System Technical Support - Contr													
A Kits													
Recurring													
STS	- / 92.101	- / 13.517	- / 12.702	- / 1.748	- / -	- / 1.748	- / -	- / -	- / -	- / -	- / -	- / 120.068	
<i>Subtotal: Recurring</i>	- / 92.101	- / 13.517	- / 12.702	- / 1.748	- / -	- / 1.748	- / -	- / -	- / -	- / -	- / -	- / 120.068	
<i>Subtotal: M109 FOV System Technical Support - Contr</i>	- / 92.101	- / 13.517	- / 12.702	- / 1.748	- / -	- / 1.748	- / -	- / -	- / -	- / -	- / -	- / 120.068	
Modification Item 3 of 13: CREW II A-Kit HW and Fielding (M109A6)													
A Kits													
Recurring													
Installation Kits	- / -	126 / 4.937	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	126 / 4.937	
<i>Subtotal: Recurring</i>	- / -	126 / 4.937	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	126 / 4.937	
<i>Subtotal: CREW II A-Kit HW and Fielding (M109A6)</i>	- / -	126 / 4.937	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	126 / 4.937	
Modification Item 4 of 13: Prior Years Closed Mods													
A Kits													
Recurring													
Prior Closed Mods	- / 1,995.885	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1,995.885	
<i>Subtotal: Recurring</i>	- / 1,995.885	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1,995.885	
<i>Subtotal: Prior Years Closed Mods</i>	- / 1,995.885	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1,995.885	
Modification Item 5 of 13: Breech (Phase II) HW and Fielding													
A Kits													
Recurring													

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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)	
Hardware	- / -	- / -	240 / 12.096	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	240 / 12.096	
<i>Subtotal: Recurring</i>	- / -	- / -	240 / 12.096	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	240 / 12.096	
Non-Recurring													
Hardware	- / 2.320	- / 1.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.820	
<i>Subtotal: Non-Recurring</i>	- / 2.320	- / 1.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.820	
<i>Subtotal: Breech (Phase II) HW and Fielding</i>	- / 2.320	- / 1.500	240 / 12.096	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	240 / 15.916	
Modification Item 6 of 13: Gun Mount Ballistic Shield (GMBS) and Rotor Shield													
A Kits													
Non-Recurring													
Hardware	- / 0.068	- / 0.042	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.110	
<i>Subtotal: Non-Recurring</i>	- / 0.068	- / 0.042	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.110	
<i>Subtotal: Gun Mount Ballistic Shield (GMBS) and Rotor Shield</i>	- / 0.068	- / 0.042	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.110	
Modification Item 7 of 13: Interior Blast Mitigation Retrofit HW/Fielding(M109A7)													
A Kits													
Recurring													
Hardware	- / -	- / -	- / -	180 / 7.272	- / -	180 / 7.272	108 / 4.179	- / -	- / -	- / -	- / -	288 / 11.451	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	180 / 7.272	- / -	180 / 7.272	108 / 4.179	- / -	- / -	- / -	- / -	288 / 11.451	
Non-Recurring													
Hardware	- / 5.564	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.564	
<i>Subtotal: Non-Recurring</i>	- / 5.564	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.564	
<i>Subtotal: Interior Blast Mitigation Retrofit HW/Fielding(M109A7)</i>	- / 5.564	- / -	- / -	180 / 7.272	- / -	180 / 7.272	108 / 4.179	- / -	- / -	- / -	- / -	288 / 17.015	
Modification Item 8 of 13: Alternative Trans and Electrical Fan Integration													
A Kits													
Non-Recurring													
Integration	- / 5.825	- / 3.381	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.206	
<i>Subtotal: Non-Recurring</i>	- / 5.825	- / 3.381	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.206	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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: Alternative Trans and Electrical Fan Integration</i>	- / 5.825	- / 3.381	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.206	
Modification Item 9 of 13: Chief of Section Protection (Inc. I) HW/Fielding													
A Kits													
Non-Recurring													
Hardware	- / 4.900	- / -	- / -	90 / 7.445	- / -	90 / 7.445	45 / 2.532	- / -	- / -	- / -	- / -	135 / 14.877	
<i>Subtotal: Non-Recurring</i>	- / 4.900	- / -	- / -	90 / 7.445	- / -	90 / 7.445	45 / 2.532	- / -	- / -	- / -	- / -	135 / 14.877	
<i>Subtotal: Chief of Section Protection (Inc. I) HW/Fielding</i>	- / 4.900	- / -	- / -	90 / 7.445	- / -	90 / 7.445	45 / 2.532	- / -	- / -	- / -	- / -	135 / 14.877	
Modification Item 10 of 13: ERCA INC 2 (XM1299A1)													
B Kits													
Recurring													
Hardware	- / -	- / -	- / -	- / -	- / -	- / -	8 / 72.629	12 / 122.886	18 / 158.750	30 / 253.849	- / -	68 / 608.114	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	8 / 72.629	12 / 122.886	18 / 158.750	30 / 253.849	- / -	68 / 608.114	
<i>Subtotal: ERCA INC 2 (XM1299A1)</i>	- / -	- / -	- / -	- / -	- / -	- / -	8 / 72.629	12 / 122.886	18 / 158.750	30 / 253.849	- / -	68 / 608.114	
Modification Item 11 of 13: Undersponson Retrofit													
B Kits													
Recurring													
Hardware	- / -	- / -	- / -	150 / 2.970	- / -	150 / 2.970	- / -	- / -	- / -	- / -	- / -	150 / 2.970	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	150 / 2.970	- / -	150 / 2.970	- / -	- / -	- / -	- / -	- / -	150 / 2.970	
<i>Subtotal: Undersponson Retrofit</i>	- / -	- / -	- / -	150 / 2.970	- / -	150 / 2.970	- / -	- / -	- / -	- / -	- / -	150 / 2.970	
Modification Item 12 of 13: Ventilation System Improvement Retrofit													
B Kits													
Recurring													
Hardware	- / -	- / -	- / -	74 / 3.150	- / -	74 / 3.150	- / -	- / -	- / -	- / -	- / -	74 / 3.150	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	74 / 3.150	- / -	74 / 3.150	- / -	- / -	- / -	- / -	- / -	74 / 3.150	
<i>Subtotal: Ventilation System Improvement Retrofit</i>	- / -	- / -	- / -	74 / 3.150	- / -	74 / 3.150	- / -	- / -	- / -	- / -	- / -	74 / 3.150	
Modification Item 13 of 13: SPH Crew Compartment AFES Retrofit HW and Fielding													
B Kits													

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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													
Hardware	- / -	- / -	- / -	90 / 3.330	- / -	90 / 3.330	- / -	- / -	- / -	- / -	- / -	90 / 3.330	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	90 / 3.330	- / -	90 / 3.330	- / -	- / -	- / -	- / -	- / -	90 / 3.330	
<i>Subtotal: SPH Crew Compartment AFES Retrofit HW and Fielding</i>	- / -	- / -	- / -	90 / 3.330	- / -	90 / 3.330	- / -	- / -	- / -	- / -	- / -	90 / 3.330	
<i>Subtotal: Procurement, All Modification Items</i>	- / 2,119.814	126 / 26.482	240 / 25.756	584 / 26.893	- / -	584 / 26.893	161 / 80.337	12 / 122.886	18 / 158.750	30 / 253.849	- / -	1,171 / 2,814.767	
Installation													
<i>Modification Item 5 of 13: Breech (Phase II) HW and Fielding</i>	- / -	- / -	- / -	240 / -	- / -	240 / -	- / -	- / -	- / -	- / -	- / -	240 / -	
<i>Modification Item 7 of 13: Interior Blast Mitigation Retrofit HW/Fielding(M109A7)</i>	- / -	- / -	- / -	- / -	- / -	- / -	180 / -	108 / -	- / -	- / -	- / -	288 / -	
<i>Modification Item 9 of 13: Chief of Section Protection (Inc. I) HW/Fielding</i>	- / -	- / -	- / -	- / -	- / -	- / -	90 / -	45 / -	- / -	- / -	- / -	135 / -	
<i>Modification Item 10 of 13: ERCA INC 2 (XM1299A1)</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / -	12 / -	18 / -	30 / -	68 / -	
<i>Modification Item 11 of 13: Undersponson Retrofit</i>	- / -	- / -	- / -	- / -	- / -	- / -	150 / -	- / -	- / -	- / -	- / -	150 / -	
<i>Modification Item 12 of 13: Ventilation System Improvement Retrofit</i>	- / -	- / -	- / -	- / -	- / -	- / -	74 / -	- / -	- / -	- / -	- / -	74 / -	
<i>Modification Item 13 of 13: SPH Crew Compartment AFES Retrofit HW and Fielding</i>	- / -	- / -	- / -	- / -	- / -	- / -	90 / -	- / -	- / -	- / -	- / -	90 / -	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	240 / -	- / -	240 / -	584 / -	161 / -	12 / -	18 / -	30 / -	1,045 / -	
Total													
Total Cost (Procurement + Support + Installation)	2,119.814	26.482	25.756	26.893	-	26.893	80.337	122.886	158.750	253.849	-	2,814.767	

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Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
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 FOV Program Office							
Manufacturer Information							
Manufacturer Name: x				Manufacturer Location: x			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023	Oct 2024
Delivery Dates	Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023	Oct 2024
Installation Information							
Method of Implementation (Organic): N/A					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
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: M109 FOV System Technical Support - Contr							
Manufacturer Information							
Manufacturer Name: BAE				Manufacturer Location: York, PA			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Jan 2020	Jan 2021				
Delivery Dates		Jan 2020	Jan 2021				
Installation Information							
Method of Implementation (Organic): N/A					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
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 3 of 13: CREW II A-Kit HW and Fielding (M109A6)							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Dec 2018						
Delivery Dates	Dec 2019						
Installation Information							
Method of Implementation (Organic): .					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
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 4 of 13: Prior Years Closed Mods							
Manufacturer Information							
Manufacturer Name: x				Manufacturer Location: x			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): x					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
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:
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Modification Item 5 of 13: Breech (Phase II) HW and Fielding

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Aug 2020					
Delivery Dates		Aug 2021					

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	240 / 0.000	- / -	240 / 0.000	- / -	- / -	- / -	- / -	- / -	240 / 0.000
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	240 / 0.000	- / -	240 / 0.000	- / -	- / -	- / -	- / -	- / -	240 / 0.000

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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	-	-	-	-	-	-	-	-	-	-	-	-	59	59	61	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240
Out	-	-	-	-	-	-	-	-	-	-	-	-	59	59	61	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
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 6 of 13: Gun Mount Ballistic Shield (GMBS) and Rotor Shield							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Dec 2018						
Delivery Dates	Dec 2019						
Installation Information							
Method of Implementation (Organic): .					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

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: Interior Blast Mitigation Retrofit HW/Fielding(M109A7)

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

Administrative Leadtime (in Months): 2 Production Leadtime (in Months): 12

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Dec 2020	Dec 2021			
Delivery Dates			Dec 2021	Dec 2022			

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	180 / 0.000	- / -	- / -	- / -	- / -	180 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	108 / 0.000	- / -	- / -	- / -	108 / 0.000
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	180 / 0.000	108 / 0.000	- / -	- / -	- / -	288 / 0.000

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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	-	-	-	-	-	-	-	-	-	-	-	-	-	44	44	46	46	26	26	28	28	-	-	-	-	-	-	-	-	-	288
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	44	44	46	46	26	26	28	28	-	-	-	-	-	-	-	-	-	288

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
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 8 of 13: Alternative Trans and Electrical Fan Integration							
Manufacturer Information							
Manufacturer Name: SAPA Transmission, Inc.				Manufacturer Location: Shelby Twp, MI			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Dec 2018						
Delivery Dates	Dec 2019						
Installation Information							
Method of Implementation (Organic): .					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
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:
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Modification Item 9 of 13: Chief of Section Protection (Inc. I) HW/Fielding

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Dec 2020	Dec 2021			
Delivery Dates			Dec 2021	Dec 2022			

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	90 / 0.000	- / -	- / -	- / -	- / -	90 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	45 / 0.000	- / -	- / -	- / -	45 / 0.000
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	90 / 0.000	45 / 0.000	- / -	- / -	- / -	135 / 0.000

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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	-	-	-	-	-	-	-	-	-	-	-	-	-	22	22	23	23	11	11	11	12	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	22	22	23	23	11	11	11	12	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

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 10 of 13: ERCA INC 2 (XM1299A1)

Manufacturer Information

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

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates				Dec 2021	Dec 2022	Dec 2023	Dec 2024
Delivery Dates				Dec 2022	Dec 2023	Dec 2024	Dec 2025

Installation Information

Method of Implementation: TBD

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.000	- / -	- / -	- / -	8 / 0.000
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.000	- / -	- / -	12 / 0.000
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 0.000	- / -	18 / 0.000
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30 / 0.000	30 / 0.000
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.000	12 / 0.000	18 / 0.000	30 / 0.000	68 / 0.000

Installation Schedule

PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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	2	2	2	3	3	3	3	4	4	5	5	30	68
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	3	3	3	3	4	4	5	5	30	68

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
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:
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Modification Item 11 of 13: Undersponson Retrofit

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

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

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Dec 2020				
Delivery Dates			Dec 2021				

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	150 / 0.000	- / -	- / -	- / -	- / -	150 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	150 / 0.000	- / -	- / -	- / -	- / -	150 / 0.000

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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	-	-	-	-	-	-	-	-	-	-	-	-	-	37	37	38	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	37	37	38	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

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: Ventilation System Improvement Retrofit

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

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

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Dec 2020				
Delivery Dates			Dec 2021				

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	74 / 0.000	- / -	- / -	- / -	- / -	74 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	74 / 0.000	- / -	- / -	- / -	- / -	74 / 0.000

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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	-	-	-	-	-	-	-	-	-	-	-	-	-	18	18	19	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	18	18	19	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

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 13 of 13: SPH Crew Compartment AFES Retrofit HW and Fielding

Manufacturer Information

Manufacturer Name: TBD Manufacturer Location: TBD

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

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Dec 2020				
Delivery Dates			Dec 2021				

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	90 / 0.000	- / -	- / -	- / -	- / -	90 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	90 / 0.000	- / -	- / -	- / -	- / -	90 / 0.000

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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	-	-	-	-	-	-	-	-	-	-	-	-	-	22	22	23	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	22	22	23	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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:** 0210609A

Line Item MDAP/MAIS Code: 466

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	186	51	48	30	-	30	44	43	45	45	197	689
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,223.600	525.902	553.425	435.825	-	435.825	603.605	591.237	618.363	619.311	3,061.905	9,233.173
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,223.600	525.902	553.425	435.825	-	435.825	603.605	591.237	618.363	619.311	3,061.905	9,233.173
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,223.600	525.902	553.425	435.825	-	435.825	603.605	591.237	618.363	619.311	3,061.905	9,233.173
<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>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	11,954.839	10,311.804	11,529.688	14,527.500	-	14,527.500	13,718.295	13,749.698	13,741.400	13,762.467	15,542.665	13,400.832

Description:

Paladin Integrated Management (PIM) is an ACAT 1C Acquisition Program. 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 current Bradley Fighting Vehicle suspension and drive train items, Future Combat Systems (FCS) developed Electric Gun Drive systems and current fleet (M109A6) fire control systems into a new chassis that provides better force protection, survivability and mobility over the current fleet. 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 M109 FOV will continue fielding through FY2034. The overall intent is to increase Soldier force protection, vehicle survivability, provide an appropriate amount of SWaP capacity to add future capabilities, reduce life cycle costs and extend the life of the M109 FOV through FY2050, allowing for a 26 year economic life.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	32	26	15	-	15	22	22	23	23
Total Obligation Authority	363.400	320.774	297.927	-	297.927	404.445	339.133	308.557	309.013
ANG									
Quantity	19	22	15	-	15	22	21	22	22
Total Obligation Authority	162.502	232.651	137.898	-	137.898	199.160	252.104	309.806	310.298
Total: Secondary Distribution									
Quantity	51	48	30	-	30	44	43	45	45
Total Obligation Authority	525.902	553.425	435.825	-	435.825	603.605	591.237	618.363	619.311

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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:** 0210609A

Line Item MDAP/MAIS Code: 466

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		186 / 2,223.600	51 / 525.902	48 / 553.425	30 / 435.825	- / -	30 / 435.825
P-40	Total Gross/Weapon System Cost				186 / 2,223.600	51 / 525.902	48 / 553.425	30 / 435.825	- / -	30 / 435.825

*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 2021 Base Procurement dollars in the amount of \$435.825 million supports all aspects of the PIM Full Rate Production (FRP) program. Funding also supports Government Program Management 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 engineer activities resulting from waivers/deviations/problem resolution. Funds contractor operations that sustain production operations required to acquire materials, components and end-items; the manufacturing and assembly of sub-systems; the integration, test and check-out operations that results in the production of 30 Sets. The unit cost represents cost per set (1 SPH and 1 CAT). The M109 FOV procurement continues to support the supplier/vendor industrial base with fielding in FY24.

In FY2021, \$1.155 million in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance.

The FY 2021 funding request was reduced by \$88.367 million to account for the availability of prior year execution balances.

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 2021 Army		Date: February 2020
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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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	186	51	48	30	-	30
Gross/Weapon System Cost (\$ in Millions)	2,223.600	525.902	553.425	435.825	-	435.825
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	2,223.600	525.902	553.425	435.825	-	435.825
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	2,223.600	525.902	553.425	435.825	-	435.825

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	11,954.839	10,311.804	11,529.688	14,527.500	-	14,527.500

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)	-	-	60.777	-	-	-	-	-	20.049	-	-	18.393	-	-	-	-	-	18.393
SYSTEM TECHNICAL SUPPORT	-	-	232.402	-	-	25.120	-	-	49.125	-	-	46.420	-	-	-	-	-	46.420
SYS TEST & EVALUATION (CONTRACTOR)	-	-	33.751	-	-	1.540	-	-	1.568	-	-	2.145	-	-	-	-	-	2.145
SYS ENG/ PROG MGMT (GOVERNMENT)	-	-	111.010	-	-	12.650	-	-	20.464	-	-	20.329	-	-	-	-	-	20.329
SYS TEST & EVALUATION (GOVERNMENT)	-	-	10.238	-	-	4.100	-	-	-	-	-	1.848	-	-	-	-	-	1.848
TRANSPORTATION	-	-	0.850	-	-	0.820	-	-	0.941	-	-	0.964	-	-	-	-	-	0.964
Subtotal: Recurring Cost	-	-	449.028	-	-	44.230	-	-	92.147	-	-	90.099	-	-	-	-	-	90.099
Non Recurring Cost																		
PRODUCTION FACILITIZATION	-	-	42.669	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	42.669	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	-	-	491.697	-	-	44.230	-	-	92.147	-	-	90.099	-	-	-	-	-	90.099
Hardware Cost																		

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Exhibit P-5, Cost Analysis: PB 2021 Army													Date: February 2020					
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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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 ^(†)	7,249.704	186	1,348.445	6,464.340	53	342.610	6,553.854	48	314.585	7,932.367	30	237.971	-	-	-	7,932.367	30	237.971
GOVERNMENT FURNISHED EQUIPMENT (GFE)	-	-	150.848	-	-	72.223	-	-	69.864	-	-	53.249	-	-	-	-	-	53.249
THEATRE PROVIDED EQUIPMENT	-	-	5.851	-	-	17.072	-	-	-	-	-	16.500	-	-	-	-	-	16.500
RECURRING PRODUCTION - OTHER	-	-	61.568	-	-	3.195	-	-	27.912	-	-	7.479	-	-	-	-	-	7.479
ENGINEERING CHANGE ORDERS	-	-	52.741	-	-	13.403	-	-	14.930	-	-	14.521	-	-	-	-	-	14.521
<i>Subtotal: Recurring Cost</i>	-	-	1,619.453	-	-	448.503	-	-	427.291	-	-	329.720	-	-	-	-	-	329.720
<i>Subtotal: Hardware Cost</i>	-	-	1,619.453	-	-	448.503	-	-	427.291	-	-	329.720	-	-	-	-	-	329.720
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	23.428	-	-	-	-	-	1.231	-	-	1.140	-	-	-	-	-	1.140
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	23.428	-	-	-	-	-	1.231	-	-	1.140	-	-	-	-	-	1.140
Support - Data Cost																		
Technical Publications	-	-	20.288	-	-	-	-	-	-	-	-	1.357	-	-	-	-	-	1.357
<i>Subtotal: Support - Data Cost</i>	-	-	20.288	-	-	-	-	-	-	-	-	1.357	-	-	-	-	-	1.357
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	17.056	-	-	8.076	-	-	14.278	-	-	4.591	-	-	-	-	-	4.591
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	17.056	-	-	8.076	-	-	14.278	-	-	4.591	-	-	-	-	-	4.591
Support - Initial Support Equipment (ISE) Cost																		
Support and Handling Equipment	-	-	5.375	-	-	3.801	-	-	2.702	-	-	1.920	-	-	-	-	-	1.920
<i>Subtotal: Support - Initial Support Equipment (ISE) Cost</i>	-	-	5.375	-	-	3.801	-	-	2.702	-	-	1.920	-	-	-	-	-	1.920
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	11.370	-	-	7.661	-	-	3.294	-	-	3.534	-	-	-	-	-	3.534

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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>	-	-	11.370	-	-	7.661	-	-	3.294	-	-	3.534	-	-	-	-	-	3.534
Support - Operational/Site Activation Cost																		
Contractor Technical Support	-	-	0.320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Operational/Site Activation Cost</i>	-	-	0.320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Support Equipment Cost																		
Maintenance Equipment	-	-	16.868	-	-	11.184	-	-	2.493	-	-	3.464	-	-	-	-	-	3.464
<i>Subtotal: Support - Support Equipment Cost</i>	-	-	16.868	-	-	11.184	-	-	2.493	-	-	3.464	-	-	-	-	-	3.464
Support - Training Cost																		
Equipment	-	-	17.745	-	-	2.447	-	-	9.989	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Training Cost</i>	-	-	17.745	-	-	2.447	-	-	9.989	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	11,954.839	186	2,223.600	10,311.804	51	525.902	11,529.688	48	553.425	14,527.500	30	435.825	-	-	-	14,527.500	30	435.825

Remarks:
FY 2021 unit cost = Higher unit cost due to Unit manufacturing cost not yet negotiated, estimate reflects prime contractor cost reporting showing overruns experienced to date.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	32	26	15	-	15
	Total Obligation Authority	363.400	320.774	297.927	-	297.927
ANG	Quantity	19	22	15	-	15
	Total Obligation Authority	162.502	232.651	137.898	-	137.898
Total: Secondary Distribution	Quantity	51	48	30	-	30
	Total Obligation Authority	525.902	553.425	435.825	-	435.825

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

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
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 ^(†)		2017	BAE / York	SS / FPIF	TACOM, Warren, MI	Dec 2017	Jul 2019	48	8,036.230	N		
MANUFACTURING ^(†)		2018	BAE / York	SS / FPIF	TACOM, Warren, MI	Sep 2018	Sep 2020	63	6,608.973	N		
MANUFACTURING ^(†)		2019	BAE / York	SS / FPIF	TACOM, Warren, MI	Dec 2019	Dec 2021	53	6,464.340	N		
MANUFACTURING ^(†)		2020	BAE / York	SS / FPIF	TACOM, Warren, MI	Mar 2020	Feb 2023	48	6,553.854	N		
MANUFACTURING ^(†)		2021	BAE / York	SS / FPIF	TACOM, Warren, MI	Jun 2021	Feb 2024	30	7,932.367	N		

^(†) indicates the presence of a P-21

Remarks:

FY 2018: Production Option 1 will award 63 vehicle sets. Production Option 1 awarded 48 vehicle sets in Sep 2018, an additional 12 vehicle sets in Dec 2019, and will award an additional 3 vehicle sets in March 2020.
 FY 2019: Production Option 2 will award 53 vehicle sets. Production Option 2 awarded 48 vehicle sets in Dec 2019 and will award an additional 5 vehicle sets in March 2020.
 FY 2020: Production Option 2 will award 48 vehicle sets. Production Option 2 will award 40 vehicle sets in March 2020 and an additional 8 vehicle sets in April 2021.
 FY 2021: Follow-on Award of 30 vehicle sets in June 2021.

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Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020									
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 2018												Fiscal Year 2019												B A L A N C E		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019													
							O C T	N O V	D E C	J A N	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: 75																																
	1	2017	ARMY	48	0	48			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	36
	1	2018	ARMY	63	0	63													A	-	-	-	-	-	-	-	-	-	-	-	-	63
	1	2019	ARMY	53	0	53																									53	
	1	2020	ARMY	48	0	48																									48	
	1	2021	ARMY	30	0	30																									30	

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Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
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 2020												Fiscal Year 2021												BALANCE		
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L		A U G	S E P
MANUFACTURING																															
Prior Years Deliveries: 75																															
1		2017	ARMY	48	12	36	4	4	4	4	4	4	4	4	4														0		
1		2018	ARMY	63	0	63	-	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	11		
1		2019	ARMY	53	0	53			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53			
1		2020	ARMY	48	0	48									A -	-	-	-	-	-	-	-	-	-	-	-	-	48			
1		2021	ARMY	30	0	30																					A -	-	-	30	

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Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
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 2022														Fiscal Year 2023														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022														Calendar Year 2023														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
MANUFACTURING																																			
Prior Years Deliveries: 75																																			
1	2017	ARMY		48	48	0																													0
1	2018	ARMY		63	52	11	4	4	3																										0
1	2019	ARMY		53	0	53	-	-	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	
1	2020	ARMY		48	0	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	
1	2021	ARMY		30	0	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	
							O C T	N O V	D E C	J A N	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 2021 Army															Date: February 2020														
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 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					
MANUFACTURING																																			
Prior Years Deliveries: 75																																			
1	2017	ARMY		48	48	0																													0
1	2018	ARMY		63	63	0																													0
1	2019	ARMY		53	53	0																													0
1	2020	ARMY		48	32	16	4	4	4	4																									0
1	2021	ARMY		30	0	30	-	-	-	-	3	3	3	3	3	3	3	3	3	3	3														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 2021 Army		Date: February 2020
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 2021	1-8-5 For 2021	MAX For 2021	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	2	14	16	0	8	32	40

Remarks:

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"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 2021 Army **Date:** February 2020

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 (M88A2 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: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	873	43	16	-	-	-	35	35	35	35	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,645.104	172.853	80.146	-	-	-	186.816	184.813	199.801	200.800	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,645.104	172.853	80.146	-	-	-	186.816	184.813	199.801	200.800	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,645.104	172.853	80.146	-	-	-	186.816	184.813	199.801	200.800	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>)	3,029.901	4,019.837	5,009.125	-	-	-	5,337.600	5,280.371	5,708.600	5,737.143	Continuing	Continuing

Description:

The M88A2 Heavy Equipment Recovery Combat Utility Lift and Evacuation System (HERCULES) is a 70 ton armored, full tracked, diesel powered recovery vehicle based on the M88A1 chassis. The hull is armored for protection against small arms fire, artillery fragments, and anti-personnel mines and the vehicle mounts a 50 caliber machine gun for self-protection. It is configured with three winches, an improved spade and an improved A-frame boom which enables the vehicle to have a 35 ton lift capability. The M88A2 is an improvement over the M88A1 Medium Recovery Vehicle (MRV) as it is the only vehicle with the capability of providing Single Vehicle Recovery (SVR) of the 70 ton Abrams tank. The M88A2 will continue fielding through FY 2022 with a planned ECP, designated as the M88A3, for single vehicle recovery of the 80 ton Abrams tank. Long lead production items ordered in FY 2022, with follow-on production starting in FY 2023.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	43	16	-	-	-	35	35	35	35
Total Obligation Authority	172.853	80.146	-	-	-	186.816	184.813	199.801	200.800
Total:									
Secondary Distribution									
Quantity	43	16	-	-	-	35	35	35	35
Total Obligation Authority	172.853	80.146	-	-	-	186.816	184.813	199.801	200.800

Justification:

FY 2021 Base procurement dollars in the amount of \$0.000 million.

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): 933

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	355.160	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000	-	478.043
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	355.160	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000	-	478.043
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	355.160	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000	-	478.043

(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>)	20,891.765	268.889	-	281.889	-	281.889	432.739	672.022	577.152	380.952	-	2,134.121

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	GZ3250 / Assault Bridge (Mod) (Equipment Upgrade/Technical Insertion)		A		- / 355.160	- / 2.420	- / 22.021	- / 5.074	- / -	- / 5.074
P-40	Total Gross/Weapon System Cost				- / 355.160	- / 2.420	- / 22.021	- / 5.074	- / -	- / 5.074
Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	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	GZ3250 / Assault Bridge (Mod) (Equipment Upgrade/Technical Insertion)		A		- / 19.906	- / 30.913	- / 26.549	- / 16.000	- / -	- / 478.043
P-40	Total Gross/Weapon System Cost				- / 19.906	- / 30.913	- / 26.549	- / 16.000	- / -	- / 478.043

*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 2021 Base procurement dollars in the amount of \$5.074 million supports 18 Abrams A2 Heavy Duty Suspension upgrades to the Assault Breacher Vehicle (ABV). The upgrade will replace the obsolete A1 suspension and keep the ABV's suspension common to the current Abrams configuration. The change will keep the logistics footprint minimized, provide for growth for additional future force protection initiatives and increase the suspension mean time between failures, increasing system availability.

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 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 4520GZ3250 / Assault Bridge (Mod)	Modification Number / Title: GZ3250 / Assault Bridge (Mod)

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

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	355.160	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000	-	478.043
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	355.160	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000	-	478.043
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	355.160	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000	-	478.043

(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)	20,891.765	268.889	-	281.889	-	281.889	432.739	672.022	577.152	380.952	-	2,134.121

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 correct safety deficiencies, increase mission capabilities, extend the useful life, improve supportability, upgrade existing technology, increase efficiency, address obsolescence, improve readiness 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. Installation costs are included in the cost of each hardware kit.

Modification Item #1: Armored Vehicle Launched Bridge (AVLB): This modification item is not funded in FY2021.

Modification Item #2: Assault Breacher Vehicle (ABV): FY2021 Base procurement dollars in the amount of \$5.074 million supports the Abrams A2 Heavy Duty Suspension upgrade to the Assault Breacher Vehicle (ABV). The upgrade will replace the obsolete A1 suspension and keep the ABV's suspension common to the current Abrams configuration. The upgrade will keep the logistics footprint minimized, provide for growth for additional future force protection initiatives and increase the suspension mean time between failures, increasing system availability.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20				P-1 Line Item Number / Title: 4520GZ3250 / Assault Bridge (Mod)						Modification Number / Title: GZ3250 / Assault Bridge (Mod)			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: Armored Vehicle Launched Bridge, Assault Breacher Vehicle				Modification Type: Equipment Upgrade/Technical Insertion				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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 2: Armored Vehicle Launched Bridge (AVLB) Upgrades													
A Kits													
Recurring													
AVLB Bridge Upgrade	106 / 336.994	- / -	36 / 19.200	- / -	- / -	- / -	17 / 8.602	22 / 11.355	25 / 13.162	16 / 8.592	- / -	222 / 397.905	
Subtotal: Recurring	106 / 336.994	- / -	36 / 19.200	- / -	- / -	- / -	17 / 8.602	22 / 11.355	25 / 13.162	16 / 8.592	- / -	222 / 397.905	
Subtotal: Armored Vehicle Launched Bridge (AVLB) Upgrades	106 / 336.994	- / -	36 / 19.200	- / -	- / -	- / -	17 / 8.602	22 / 11.355	25 / 13.162	16 / 8.592	- / -	222 / 397.905	
Modification Item 2 of 2: Assault Breacher Vehicle (ABV)													
A Kits													
Recurring													
ABV Abrams A2 Heavy Suspension Upgrade	- / 18.166	9 / 2.420	9 / 2.821	18 / 5.074	- / -	18 / 5.074	22 / 6.404	11 / 4.375	8 / 3.919	26 / 7.408	- / -	103 / 50.587	
Subtotal: Recurring	- / 18.166	9 / 2.420	9 / 2.821	18 / 5.074	- / -	18 / 5.074	22 / 6.404	11 / 4.375	8 / 3.919	26 / 7.408	- / -	103 / 50.587	
Non-Recurring													
ABV Remote Control System (RCS)	- / -	- / -	- / -	- / -	- / -	- / -	7 / 4.900	13 / 9.282	13 / 9.468	- / -	- / -	33 / 23.650	
ABV Software 4.0 Update	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.901	- / -	- / -	- / -	- / 15.901	
Subtotal: Non-Recurring	- / -	- / -	- / -	- / -	- / -	- / -	7 / 4.900	13 / 15.183	13 / 9.468	- / -	- / -	33 / 29.551	
Subtotal: Assault Breacher Vehicle (ABV)	- / 18.166	9 / 2.420	9 / 2.821	18 / 5.074	- / -	18 / 5.074	29 / 11.304	24 / 19.558	21 / 13.387	26 / 7.408	- / -	136 / 80.138	
Subtotal: Procurement, All Modification Items	106 / 355.160	9 / 2.420	45 / 22.021	18 / 5.074	- / -	18 / 5.074	46 / 19.906	46 / 30.913	46 / 26.549	42 / 16.000	- / -	358 / 478.043	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	355.160	2.420	22.021	5.074	-	5.074	19.906	30.913	26.549	16.000	-	478.043	

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Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 4520GZ3250 / Assault Bridge (Mod)			Modification Number / Title: GZ3250 / Assault Bridge (Mod)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 1 of 2: Armored Vehicle Launched Bridge (AVLB) Upgrades							
Manufacturer Information							
Manufacturer Name: Anniston Army Depot				Manufacturer Location: Anniston, AL			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 10			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Mar 2020		Jan 2022	Jan 2023	Jan 2024	Jan 2025
Delivery Dates		Dec 2020		Oct 2022	Oct 2023	Oct 2024	Oct 2025
Installation Information							
Method of Implementation (Organic): Anniston Army Depot					Installation Quantity: 80		

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Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 4520GZ3250 / Assault Bridge (Mod)			Modification Number / Title: GZ3250 / Assault Bridge (Mod)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 2 of 2: Assault Breacher Vehicle (ABV)							
Manufacturer Information							
Manufacturer Name: Anniston Army Depot				Manufacturer Location: Anniston, AL			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 3			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024	Jan 2025
Delivery Dates	Apr 2019	Apr 2020	Apr 2021	Apr 2022	Apr 2023	Apr 2024	Apr 2025
Installation Information							
Method of Implementation (Organic): Anniston Army Depot					Installation Quantity: 136		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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:** 4872G82925 / Assault Breacher Vehicle

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	126	13	6	4	-	4	5	5	-	-	-	159
Gross/Weapon System Cost (<i>\$ in Millions</i>)	501.481	62.107	31.697	19.500	-	19.500	26.171	26.041	1.171	-	-	668.168
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	501.481	62.107	31.697	19.500	-	19.500	26.171	26.041	1.171	-	-	668.168
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	501.481	62.107	31.697	19.500	-	19.500	26.171	26.041	1.171	-	-	668.168

(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>)	3,980.008	4,777.462	5,282.833	4,875.000	-	4,875.000	5,234.200	5,208.200	-	-	-	4,202.314

Description:

The Assault Breacher Vehicle (ABV) is a combined program with the United States Marine Corps (USMC). It is a tracked combat engineer vehicle for the Marine Air Ground Task Force and the Army Armored Brigade Combat Team (ABCT). 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 ABV provides crew protection and vehicle survivability equal to the M1A1 Abrams tank hull and has the speed and mobility to keep pace with the heavy maneuver force. The ABV is assigned to engineer companies in ABCTs. Its hull is an overhauled M1A1 Abrams tank hull with modifications for its new mission. Its mission equipment includes two Linear Demolition Charge Systems (modified Mine Clearing Line Charge (MCLC) 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 ABV, and an integrated day/night vision system. The ABV is fabricated at Anniston Army Depot (ANAD).

The ABV Army Acquisition Objective (AAO) is 141.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	6	6	4	-	4	5	5	-	-
	Total Obligation Authority	30.904	31.697	19.500	-	19.500	26.171	26.041	1.171	-
ANG	Quantity	7	-	-	-	-	-	-	-	-
	Total Obligation Authority	31.203	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	13	6	4	-	4	5	5	-	-
	Total Obligation Authority	62.107	31.697	19.500	-	19.500	26.171	26.041	1.171	-

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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:** 4872G82925 / Assault Breacher Vehicle

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	G82925 / Assault Breacher Vehicle	P-5a, P-21	A		126 / 501.481	13 / 62.107	6 / 31.697	4 / 19.500	- / -	4 / 19.500
P-40	Total Gross/Weapon System Cost				126 / 501.481	13 / 62.107	6 / 31.697	4 / 19.500	- / -	4 / 19.500

*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 2021 Base procurement dollars in the amount of \$19.500 million supports the procurement of four (4) Assault Breacher Vehicles (ABVs) that give the Army a tracked armored capability to breach minefields, reduce barrier obstacles, and mark cleared lanes for following heavy combat forces while maintaining pace with them throughout high intensity combat operations. The ABV is fabricated at Anniston Army Depot (ANAD).

 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 2021 Army											Date: February 2020						
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20						P-1 Line Item Number / Title: 4872G82925 / Assault Breacher Vehicle					Item Number / Title [DODIC]: G82925 / Assault Breacher Vehicle						
ID Code (A=Service Ready, B=Not Service Ready) : A											MDAP/MAIS Code:						
Resource Summary				Prior Years		FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total			
Procurement Quantity (Units in Each)				126		13		6		4		-		4			
Gross/Weapon System Cost (\$ in Millions)				501.481		62.107		31.697		19.500		-		19.500			
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-			
Net Procurement (P-1) (\$ in Millions)				501.481		62.107		31.697		19.500		-		19.500			
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-			
Total Obligation Authority (\$ in Millions)				501.481		62.107		31.697		19.500		-		19.500			
<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)				3,980.008		4,777.462		5,282.833		4,875.000		-		4,875.000			

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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																		
ABV Hardware ^(†)	2,371.153	118	279.796	2,598.154	13	33.776	2,846.167	6	17.077	2,679.250	4	10.717	-	-	-	2,679.250	4	10.717
1. Full Width Mine Plow	348.974	78	27.220	367.333	9	3.306	407.500	4	1.630	392.500	2	0.785	-	-	-	392.500	2	0.785
2. Combat Dozer Blade	205.487	39	8.014	211.250	4	0.845	229.000	2	0.458	192.500	2	0.385	-	-	-	192.500	2	0.385
3. High Lift Adapter	202.475	118	23.892	216.462	13	2.814	239.167	6	1.435	227.250	4	0.909	-	-	-	227.250	4	0.909
4. Lane Marking System	182.347	118	21.517	212.692	13	2.765	235.000	6	1.410	227.000	4	0.908	-	-	-	227.000	4	0.908
5. Linear Demolition Control System	189.576	118	22.370	266.385	13	3.463	294.333	6	1.766	275.250	4	1.101	-	-	-	275.250	4	1.101
6. Integrated Vision System	482.712	118	56.960	487.692	13	6.340	530.333	6	3.182	522.250	4	2.089	-	-	-	522.250	4	2.089
7. Hull Integration Kit	14.466	118	1.707	14.154	13	0.184	15.667	6	0.094	14.750	4	0.059	-	-	-	14.750	4	0.059
8. Embedded Diagnostic Kit	42.983	118	5.072	41.385	13	0.538	45.667	6	0.274	41.750	4	0.167	-	-	-	41.750	4	0.167
9. Spares	532.000	20	10.640	549.500	2	1.099	593.000	1	0.593	580.000	1	0.580	-	-	-	580.000	1	0.580
System Engineering/ Program Management	-	-	14.296	-	-	3.176	-	-	3.218	-	-	1.500	-	-	-	-	-	1.500
Fielding	-	-	15.700	-	-	0.658	-	-	0.300	-	-	0.150	-	-	-	-	-	0.150
Data	-	-	8.322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
First Destination Transportation - FDT	-	-	-	-	-	0.743	-	-	0.260	-	-	0.150	-	-	-	-	-	0.150

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 4872G82925 / Assault Breacher Vehicle	Item Number / Title [DODIC]: G82925 / Assault Breacher Vehicle
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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
Engineering Change Proposals	-	-	5.975	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	501.481	-	-	59.707	-	-	31.697	-	-	19.500	-	-	-	-	-	19.500
Non Recurring Cost																		
Facility Test Overhauls	-	-	-	-	-	2.400	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	2.400	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	501.481	-	-	62.107	-	-	31.697	-	-	19.500	-	-	-	-	-	19.500
Gross/Weapon System Cost	3,980.008	126	501.481	4,777.462	13	62.107	5,282.833	6	31.697	4,875.000	4	19.500	-	-	-	4,875.000	4	19.500

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	6	6	4	-	4
	Total Obligation Authority	30.904	31.697	19.500	-	19.500
ANG	Quantity	7	-	-	-	-
	Total Obligation Authority	31.203	-	-	-	-
Total: Secondary Distribution	Quantity	13	6	4	-	4
	Total Obligation Authority	62.107	31.697	19.500	-	19.500

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

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 4872G82925 / Assault Breacher Vehicle	Item Number / Title [DODIC]: G82925 / Assault Breacher Vehicle
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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
ABV Hardware ^(†)		2019	Anniston Army Depot (ANAD) / Anniston, AL	WR	TACOM - Warren, MI	Feb 2019	Feb 2020	13	2,598.154	Y		
ABV Hardware ^(†)		2020	Anniston Army Depot (ANAD) / Anniston, AL	WR	TACOM - Warren, MI	Feb 2020	Feb 2021	6	2,846.167	Y		
ABV Hardware ^(†)		2021	Anniston Army Depot (ANAD) / Anniston, AL	WR	TACOM - Warren, MI	Feb 2021	Feb 2022	4	2,684.250	Y		

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20 **P-1 Line Item Number / Title:** 4872G82925 / Assault Breacher Vehicle **Item Number / Title [DODIC]:** G82925 / Assault Breacher Vehicle

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2019												Fiscal Year 2020												BALANCE		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L		A U G	S E P
ABV Hardware																															
Prior Years Deliveries: 118																															
	1	2019	ARMY	13	0	13																									
	1	2020	ARMY	6	0	6																									
	1	2021	ARMY	4	0	4																									
							O C T	N O V	D E C	J A N	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 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20 **P-1 Line Item Number / Title:** 4872G82925 / Assault Breacher Vehicle **Item Number / Title [DODIC]:** G82925 / Assault Breacher Vehicle

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
ABV Hardware																															
Prior Years Deliveries: 118																															
1		2019	ARMY	13	9	4	1	1	1	1																			0		
1		2020	ARMY	6	0	6	-	-	-	-	1	1	1	1	1	1													0		
1		2021	ARMY	4	0	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 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 4872G82925 / Assault Breacher Vehicle	Item Number / Title [DODIC]: G82925 / Assault Breacher Vehicle
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	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	Anniston Army Depot (ANAD) - Anniston, AL	1	1	3	0	4	12	16	0	4	12	16

"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 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	126.273	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	126.273	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	126.273	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-	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 M88 Fleet Modification Program provides funding for the personnel, 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 M88 family of vehicles (FOV). These improvements address maintaining operational readiness rates, improving vehicle safety and operation, and integrating new equipment. Engineering Change Proposals (ECPs) will be applied through a modification work order and procured 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.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	G80571 / M88 FOV MODS (Increase Performance)		A		- / 126.273	- / 4.517	- / 4.500	- / 18.382	- / -	- / 18.382
P-40	Total Gross/Weapon System Cost				- / 126.273	- / 4.517	- / 4.500	- / 18.382	- / -	- / 18.382

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	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	G80571 / M88 FOV MODS (Increase Performance)		A		- / 16.484	- / 6.993	- / -	- / -	Continuing	Continuing
P-40	Total Gross/Weapon System Cost				- / 16.484	- / 6.993	- / -	- / -	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 2021 base procurement dollars in the amount of \$18.382 million supports enhancements in operational safety, reliability, and maintainability for the M88 family of vehicles (FOV). Modifications include engine maintainability and reliability improvements, automatic fire extinguishing system enhancements, recovery equipment enhancements, and special tools delta kits. FY 2021 funding will maintain continuity and support M88A2 reliability and safety field modifications through 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-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 5129G80571 / M88 FOV MODS	Modification Number / Title: G80571 / M88 FOV MODS

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

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	126.273	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	126.273	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	126.273	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-	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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides funding for components and labor for required safety, reliability, and other field related modifications. These modifications correct or alleviate operational deficiencies, improve reliability and maintainability, correct faulty performance or quality, reduce logistical support requirements, standardize equipment and training devices, prevent injury or damage to equipment, and meet environmental protection standards identified during testing, training exercises, or combat. Installation of hardware is either cascaded into the production line in an ECP or integrated in to base platform through attrition. This modification line funds testing, System Engineering, Program Management and Original Equipment Manufacturer (OEM) System Technical Support (STS).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20					P-1 Line Item Number / Title: 5129G80571 / M88 FOV MODS					Modification Number / Title: G80571 / M88 FOV MODS			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: M88				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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 2: Program Management													
A Kits													
Recurring													
Contractor Program Support	- / 0.352	- / -	- / -	- / 0.750	- / -	- / 0.750	- / 0.765	- / 0.390	- / -	- / -	Continuing	Continuing	
Government Program Support	- / -	- / -	- / -	- / 4.640	- / -	- / 4.640	- / 4.733	- / 2.029	- / -	- / -	Continuing	Continuing	
Subtotal: Recurring	- / 0.352	- / -	- / -	- / 5.390	- / -	- / 5.390	- / 5.498	- / 2.419	- / -	- / -	Continuing	Continuing	
Subtotal: Program Management	- / 0.352	- / -	- / -	- / 5.390	- / -	- / 5.390	- / 5.498	- / 2.419	- / -	- / -	Continuing	Continuing	
Modification Item 2 of 2: Systems Technical Support													
A Kits													
Recurring													
Systems Technical Support	- / -	- / 4.517	- / 4.500	- / 6.300	- / -	- / 6.300	- / 6.426	- / 2.445	- / -	- / -	Continuing	Continuing	
Subtotal: Recurring	- / -	- / 4.517	- / 4.500	- / 6.300	- / -	- / 6.300	- / 6.426	- / 2.445	- / -	- / -	Continuing	Continuing	
Non-Recurring													
Systems Technical Support	- / 125.921	- / -	- / -	- / 6.692	- / -	- / 6.692	- / 4.560	- / 2.129	- / -	- / -	Continuing	Continuing	
Subtotal: Non-Recurring	- / 125.921	- / -	- / -	- / 6.692	- / -	- / 6.692	- / 4.560	- / 2.129	- / -	- / -	Continuing	Continuing	
Subtotal: Systems Technical Support	- / 125.921	- / 4.517	- / 4.500	- / 12.992	- / -	- / 12.992	- / 10.986	- / 4.574	- / -	- / -	Continuing	Continuing	
Subtotal: Procurement, All Modification Items	- / 126.273	- / 4.517	- / 4.500	- / 18.382	- / -	- / 18.382	- / 16.484	- / 6.993	- / -	- / -	Continuing	Continuing	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	126.273	4.517	4.500	18.382	-	18.382	16.484	6.993	-	-	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 5129G80571 / M88 FOV MODS			Modification Number / Title: G80571 / M88 FOV MODS	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 1 of 2: Program Management							
Manufacturer Information							
Manufacturer Name: USG				Manufacturer Location: Various			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 11			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Jan 2019	Jan 2020	Jan 2021				
Delivery Dates	Dec 2019	Dec 2020	Dec 2021				
Installation Information							
Method of Implementation (Organic): Various					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 5129G80571 / M88 FOV MODS		Modification Number / Title: G80571 / M88 FOV MODS		
ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:			
Modification Item 2 of 2: Systems Technical Support							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (<i>in Months</i>):				Production Leadtime (<i>in Months</i>):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Apr 2019	Jun 2020	Dec 2020				
Delivery Dates	Apr 2019	Jun 2020	Dec 2020				
Installation Information							
Method of Implementation (Organic): Various					Installation Quantity: 0		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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): B **Program Elements for Code B Items:** 0604804A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: X33

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	51	21	45	14	-	14	30	46	50	39	-	296
Gross/Weapon System Cost (<i>\$ in Millions</i>)	286.023	119.147	205.517	72.178	-	72.178	143.054	220.376	245.365	196.252	-	1,487.912
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	286.023	119.147	205.517	72.178	-	72.178	143.054	220.376	245.365	196.252	-	1,487.912
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	286.023	119.147	205.517	72.178	-	72.178	143.054	220.376	245.365	196.252	-	1,487.912

(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>)	5,608.294	5,673.667	4,567.044	5,155.571	-	5,155.571	4,768.467	4,790.783	4,907.300	5,032.103	-	5,026.730

Description:

The Joint Assault Bridge (JAB) replaces the existing Wolverine and M48A5/M60 series chassis Armored Vehicle Launch Bridge (AVLB) to meet current maneuver force survivability, suitability and supportability requirements. The JAB is an M1A1 Abrams Chassis-based engineer vehicle with a Heavy M1A2 Abrams suspension that launches and retrieves the 18.3 meter AVLB Military Load Class (MLC) 95 Bridge. AVLB bridges will be upgraded to MLC 95 standard as part of the JAB program at Anniston Army Depot. The system will be employed with Army Armored Brigade Combat Teams (ABCTs) within the Brigade Engineer battalions (BEBs), Engineer Mobility Augmentation Companies (MACs), as well as the Marines. The JAB is currently in the Milestone C - Low Rate Initial Production (LRIP) phase. The production acquisition strategy includes a public/private partnership with Anniston Army Depot (ANAD) for the production of the Abrams chassis. Production Qualification Test (PQT) completed February 2019, and Initial Operational Test completion is planned for 3Qtr FY20 to support a Full Rate Production Decision in 2Qtr quarter FY21.

JAB Army Acquisition Objective: 305

FY19 quantities are not correct and should reflect production of 24 JABs. Program quantities, cost and production information is correctly indicated on P5 and P21.

The FY 2021 funding request was reduced by \$70.000 million to account for the availability of prior year execution balances

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	12	14	2	-	2	8	3	26	31
Total Obligation Authority	62.245	63.939	10.311	-	10.311	54.878	22.792	138.640	160.717
ANG	9	30	12	-	12	12	18	6	-
Total Obligation Authority	56.902	137.011	61.867	-	61.867	48.096	79.038	26.681	-
AR	-	1	-	-	-	10	25	18	8
Total Obligation Authority	-	4.567	-	-	-	40.080	118.546	80.044	35.535
Total:	21	45	14	-	14	30	46	50	39

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0604804A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: X33

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	119.147	205.517	72.178	-	72.178	143.054	220.376	245.365	196.252

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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): B **Program Elements for Code B Items:** 0604804A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: X33

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	B		51 / 286.023	21 / 119.147	45 / 205.517	14 / 72.178	- / -	14 / 72.178
P-40	Total Gross/Weapon System Cost				51 / 286.023	21 / 119.147	45 / 205.517	14 / 72.178	- / -	14 / 72.178

*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 2021 Base Procurement dollars in the amount of \$72.178 million supports 14 Full Rate Production (FRP) Joint Assault Bridges (JAB) for Army requirements. The JAB fills a critical shortage in recently established Brigade Engineer Battalion (BEB) formations. The JAB chassis provides a system that offers the Combatant Commander enhanced survivability, mobility, and sustainability compared to the legacy M60 Armored Vehicle Launch Bridge.

In FY 2021, \$.356 million in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

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: 305

NOTE: FY19 quantities are not correct and should reflect production of 24 JABs. Program quantities, cost and production information is correctly indicated on P5 and P21.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	51	21	45	14	-	14
Gross/Weapon System Cost (\$ in Millions)	286.023	119.147	205.517	72.178	-	72.178
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	286.023	119.147	205.517	72.178	-	72.178
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	286.023	119.147	205.517	72.178	-	72.178

(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)	5,608.294	5,673.667	4,567.044	5,155.571	-	5,155.571

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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 - LRIP ^(†)	1,447.294	51	73.812	1,338.500	24	32.124	1,338.500	14	18.739	-	-	-	-	-	-	-	-	-
Hardware - FRP ^(†)	-	-	-	-	-	-	1,365.194	31	42.321	1,365.214	14	19.113	-	-	-	1,365.214	14	19.113
GFM ANAD Rolling Chassis	2,513.529	51	128.190	2,518.417	24	60.442	2,568.267	45	115.572	2,619.643	14	36.675	-	-	-	2,619.643	14	36.675
Bridge Upgrades	456.255	51	23.269	485.208	24	11.645	494.844	45	22.268	504.714	14	7.066	-	-	-	504.714	14	7.066
Engineering Changes	-	-	18.299	-	-	0.376	-	-	-	-	-	3.000	-	-	-	-	-	3.000
System Engineering/ Program Management	-	-	25.661	-	-	4.577	-	-	4.721	-	-	4.661	-	-	-	-	-	4.661
Support Equipment/ ASIOE	-	-	7.392	-	-	0.150	-	-	0.196	-	-	0.163	-	-	-	-	-	0.163
Fielding	-	-	4.300	-	-	0.800	-	-	0.850	-	-	0.750	-	-	-	-	-	0.750
First Destination Transportation - FDT	-	-	-	-	-	1.051	-	-	0.850	-	-	0.750	-	-	-	-	-	0.750
Subtotal: Recurring Cost	-	-	280.923	-	-	111.165	-	-	205.517	-	-	72.178	-	-	-	-	-	72.178
Non Recurring Cost																		
Logistics Products	-	-	5.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Simulator - Common Driver Trainer (CDT) Update	-	-	-	-	-	7.982	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	5.100	-	-	7.982	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	-	-	286.023	-	-	119.147	-	-	205.517	-	-	72.178	-	-	-	-	-	72.178

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Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
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) : B												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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	5,608.294	51	286.023	5,673.667	21	119.147	4,567.044	45	205.517	5,155.571	14	72.178	-	-	-	5,155.571	14	72.178

Remarks:

In FY 2021, \$0.356 million in Reimbursable Manpower for JAB has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

NOTE: FY19 quantities are not correct and should reflect production of 24 JABs. Program quantities, cost and production information is correctly indicated on P5 and P21.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	12	14	2	-	2
	Total Obligation Authority	62.245	63.939	10.311	-	10.311
ANG	Quantity	9	30	12	-	12
	Total Obligation Authority	56.902	137.011	61.867	-	61.867
AR	Quantity	-	1	-	-	-
	Total Obligation Authority	-	4.567	-	-	-
Total: Secondary Distribution	Quantity	21	45	14	-	14
	Total Obligation Authority	119.147	205.517	72.178	-	72.178

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

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

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 - LRIP		2018	DRS Sustainment Systems, INC / Saint Louis, MO	C / FFP	TACOM, Warren, MI	Dec 2017	Nov 2019	27	1,300.000	Y		
Hardware - LRIP		2019	DRS Sustainment Systems, INC / Saint Louis, MO	C / FFP	TACOM, Warren, MI	Feb 2020	Apr 2021	24	1,338.500	Y		
Hardware - LRIP		2020	DRS Sustainment Systems, INC / Saint Louis, MO	C / FFP	TACOM, Warren, MI	Jul 2020	Sep 2021	14	1,338.500	Y		
Hardware - FRP ^(†)		2020	DRS Sustainment Systems, INC / Saint Louis, MO	C / FFP	TACOM, Warren, MI	Mar 2021	Jul 2022	31	1,365.194	Y		
Hardware - FRP ^(†)		2021	DRS Sustainment Systems, INC / Saint Louis, MO	C / FFP	TACOM, Warren, MI	Mar 2021	Jul 2022	14	1,365.214	Y		

(†) indicates the presence of a P-21

Remarks:

Anniston Army Depot (ANAD) provides DRS Sustainment Systems Inc. with overhauled M1A1 Abrams Chassis prepared for hydraulic launcher integration. ANAD also overhauls and modified existing Heavy Assault Scissor Bridge from Military Load Capacity (MLC) 60 to MLC 95 configuration.

FY20 funding will be awarded as a split between Low Rate Initial Production (LRIP) award of 14 systems July FY20 and post Full Rate Production (FRP) decision award of 31 systems in March FY21

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Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

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 2018												Fiscal Year 2019												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							O C T	N O V	D E C	J A N	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 - FRP																															
1		2020	ARMY	31	0	31																							31		
1		2021	ARMY	14	0	14																							14		
							O C T	N O V	D E C	J A N	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 2021 Army **Date:** February 2020

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 2020												Fiscal Year 2021												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							O C T	N O V	D E C	J A N	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 - FRP																															
1		2020	ARMY	31	0	31																							A - - - - - - -	31	
1		2021	ARMY	14	0	14																							A - - - - - - -	14	
							O C T	N O V	D E C	J A N	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 2021 Army **Date:** February 2020

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 2022													Fiscal Year 2023													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022													Calendar Year 2023													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Hardware - FRP																																	
1		2020	ARMY	31	0	31	-	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	3	3	3	2	1	1	0		
1		2021	ARMY	14	0	14	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	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 2021 Army **Date:** February 2020

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 2021	1-8-5 For 2021	MAX For 2021	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	1	2	5	0	2	16	18	0	2	16	18

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

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

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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:** 6406GA0700 / M1 Abrams Tank (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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6,960.483	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	6,960.483	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	6,960.483	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035	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 Abrams Tank Fleet Modification Program applies Materiel 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. Common Abrams modifications include Active Protection Systems (APS), gun tube durability improvements, Blue Force Tracking, Mounted Family of Computer System (MFOCs) and Power Train Improvement & Integration Optimization Program (i.e. Total Integrated Engine Revitalization (TIGER) and Transmission Modifications) which provide more reliability, durability, and a single standard for the vehicle's power train. Survivability improvements include frontal and side armor upgrades. Key safety improvements include the loaders tray modification, ammunition rack upgrades, Rear View Sensing System (RVSS), light weighting, and any other modification identified in existing requirement documents or validated by the Army.

This program also supports the Army's Abrams tank Industrial Base (IB) strategy, which focuses on mitigating impacts to the Abrams tank IB by maintaining, optimizing, and modernizing the manufacturing facilities comprising the Abrams tank IB.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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:**
 6406GA0700 / M1 Abrams Tank (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

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	GA0700 / M1 Abrams Tank (MOD) (Increase Performance)		A		- / 6,960.483	- / 959.041	- / 353.292	- / 392.013	- / -	- / 392.013
P-40	Total Gross/Weapon System Cost				- / 6,960.483	- / 959.041	- / 353.292	- / 392.013	- / -	- / 392.013

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	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	GA0700 / M1 Abrams Tank (MOD) (Increase Performance)		A		- / 374.060	- / 387.201	- / 389.299	- / 497.035	Continuing	Continuing
P-40	Total Gross/Weapon System Cost				- / 374.060	- / 387.201	- / 389.299	- / 497.035	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 2021 Base procurement dollars in the amount of \$392.013 million supports the following:

- The procurement and field application of the following efforts: procurement and field application of the Ammunition Data Link (ADL) to fire programmable ammunition, Common Remote Operated Weapon Station Low Profile (CROWS-LP), 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), and 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 maintenance, optimization, and modernization of the Abrams tank IB to support the start of production, efficient production at low volumes, and maintenance of the Abrams tank IB manufacturing and production capability.
- In FY 2021, \$.712 million in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.
- The 2021 funding request was reduced by \$10.000 million to account for the availability of prior year execution balances.

In accordance with Section 1815 of the FY2008 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 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)	Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)

ID Code (A=Service Ready, B=Not Service Ready) : A						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6,960.483	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	6,960.483	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	6,960.483	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035	Continuing	Continuing
<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:

Abrams Field Upgrades (MOD 2): Provides funding for components and labor for required safety and other field related modifications. These modifications correct or alleviate operational deficiencies, improve reliability and maintainability, correct faulty performance or quality, reduce logistical support requirements, standardize equipment and training devices, prevent injury or damage to equipment, and meet environmental protection standards identified during testing, training exercises, or combat. Field modifications include Blue Force Tracking (BFT) 2 and Mounted Family of Computer System (MFoCS), Ammunition Data Link (ADL), Common Remote Operated Weapon Station Low Profile (CROWS-LP), light-weighting, Advanced Multi-Purpose (AMP) round tank Modification Work Orders (MWO), Vehicle Health Management System and Embedded Training (VEM), Vehicle Engine Exhaust Smoke System (VEESS), or any other gap identified by the Combat or Material Developer. Installation of hardware is either cascaded into the production line in an Engineering Change Proposal (ECP) or applied on a unit-by-unit basis by several field modification teams and is determined by unit availability. Installation costs are included in the contractor costs and cannot be broken out. Contract dates will vary by individual component. Additionally, this modification line funds testing as well as System Technical Support (STS) from General Dynamics Land Systems (GDLS), General Dynamics Canada (GDC), Raytheon, and DRS Technologies. Formerly, these costs were funded in the Abrams Program support line but were moved to MOD 2 because STS and testing validation efforts are used to modify the tank in support of field upgrades and fielding.

Program/Engineering Support (MOD 5): This modification line funds government program salaries, benefits, TDY, office automation, administration, and supplies. These funds also provide for dedicated functional support from the Tank Automotive Command (TACOM), Combat Capabilities Development Command (CCDC), Anniston Army Depot (ANAD), Joint Systems Manufacturing Center (JSMC), Abrams Material Fielding Team (MFT) at Ft. Hood, Texas, and other government sites.

Power Pack Improvement & Integration Optimization (MOD 6): This modification reduces the Operating and Support (O&S) cost of the Abrams Tank power train. It equips the Abrams fleet with a more reliable, durable, and fuel-efficient power pack. It also establishes a single overhaul standard for the vehicle's power train. This modification line funds System Technical Support (STS) from Honeywell for the TIGER engine, Digital Engine Control Unit (DECU), and Allison Transmission. Contractor dates will vary by item.

Training Devices (MOD 7): Provides funding for Training Aids, Devices, Simulators and Simulations (TADSS) in support of the Abrams family of vehicles. System training devices are required to remain current with upgraded fleet configuration/capabilities. TADSS include Maintenance Trainers, Gunnery Trainer Tech Refresh, Common Drivers Trainer Upgrades, Desktop Trainer Lesson modifications, Abrams Common Software Library modifications and Through Sight Video (TSV). Contract dates will vary by item and cannot be predicted. Includes non-recurring engineering for hardware and software changes, embedded training, procurement cost of the hardware associated with modifications to existing training devices, and field installation at the unit.

Facilities Maintenance, Optimization, and Modernization (MOD 8): This funding supports the maintenance, optimization, and modernization of the facilities and equipment supporting the Abrams tank IB at Anniston Army Depot, Anniston, AL; Tobyhanna Army Depot, Tobyhanna, PA; Watervliet Arsenal, Watervliet, NY; Joint Systems Manufacturing Center, Lima, OH; Allison Transmission, Inc., Indianapolis, IN; Scranton Defense Plant, Scranton, PA; General Dynamics Land Systems (GDLS) Sterling Heights Complex, Sterling Heights, MI; GDLS Tallahassee, Tallahassee, FL; Honeywell Aerospace, Phoenix, AZ; Raytheon and Leonardo DRS facilities; and any other facility providing manufacturing, production, or support of Abrams tanks. Funding will be used to address current and deferred maintenance, internal

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Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)	Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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restructuring of manufacturing facilities and equipment, manufacturing and production line optimization, energy-savings projects aimed at energy efficiency and reduced energy costs, efforts to increase manufacturing and production efficiency at current and future forecasted rates, and modernization of end-of-service and end-of-useful life facilities and equipment. These efforts will include, but are not limited to, facilities and equipment maintenance; deferred facilities and equipment maintenance; Environmental Protection Agency and Occupational Safety and Health Administration compliance; quality of work environment projects; acquisition, repair, rehabilitation, replacement, preservation, installation, accountability, and disposition of equipment, capital investment, operational energy improvements, and the establishment of new, optimized, and modernized manufacturing and production lines and layouts.

Survivability Enhancements (MOD 9): This funding supports the procurement, field application, transportation, fielding and logistical support of Active and Passive Protection Systems, countermeasures, turret mitigation, components and labor to optimize the safety and survivability of the Abrams main battle tank. These modifications correct or alleviate operational deficiencies, improve reliability and maintainability, improve performance or quality, reduce logistic support requirements, standardize equipment and training devices, prevent injury or damage to equipment, and meet environmental protection standards identified during testing, training exercises, or in combat. Production of Active Protection Systems began in FY 2018, installation and additional procurement occurred in FY 2019 and will continue in FY 2020. Application of Active Protection systems as a field modification and on new variants on the production line will be continuous.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20					P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)					Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: Abrams Family of Vehicles				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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: FY 2019 NDAA SEC 825 MDAP Cost Overrun													
A Kits													
Non-Recurring													
FY 2019 NDAA SEC 825 MDAP Cost Overrun													
	- / -	- / 1.433	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.433	
Subtotal: Non-Recurring													
	- / -	- / 1.433	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.433	
Subtotal: FY 2019 NDAA SEC 825 MDAP Cost Overrun													
	- / -	- / 1.433	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.433	
Modification Item 2 of 10: Prior Year Closed Mods													
A Kits													
Non-Recurring													
Other													
	- / 2,842.034	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing / Continuing	
Subtotal: Non-Recurring													
	- / 2,842.034	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing / Continuing	
Subtotal: Prior Year Closed Mods													
	- / 2,842.034	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing / Continuing	
Modification Item 3 of 10: Abrams Field Upgrades													
A Kits													
Recurring													
M1A2 SEPv3 Field Modifications													
	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 20.340	- / 20.700	- / 42.300	- / -	- / 83.340	
ARAT Weldments													
	- / -	- / -	87 / 0.829	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	87 / 0.829	
CROWS-LP A and B Kits & ICDU upgrade													
	752 / 103.099	384 / 90.187	158 / 32.052	87 / 17.188	- / -	87 / 17.188	87 / 15.724	- / 0.108	- / 0.110	- / -	- / -	1,468 / 258.468	
VEM													
	105 / 10.514	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	105 / 10.514	
Ammunition Data Link (ADL) A4 Round /ITM													
	555 / 63.884	180 / 31.759	89 / 14.484	89 / 14.801	- / -	89 / 14.801	89 / 15.097	89 / 15.399	89 / 15.707	89 / 16.021	- / -	1,269 / 187.152	
Maintenance Support Device Hard Drive													
	- / 0.510	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing / Continuing	
Support Equipment and TPF													
	- / 152.004	- / 17.000	- / 25.000	- / 20.782	- / -	- / 20.782	- / 21.215	- / 21.628	- / 22.062	- / 22.503	Continuing / Continuing	Continuing / Continuing	
System Technical Support													
	- / 431.042	- / 85.367	- / 100.957	- / 92.522	- / -	- / 92.522	- / 90.497	- / 92.934	- / 92.875	- / 91.658	Continuing / Continuing	Continuing / Continuing	
Test Support													
	- / 5.942	- / 5.512	- / 8.607	- / 13.282	- / -	- / 13.282	- / 10.886	- / 11.103	- / 11.325	- / 11.552	Continuing / Continuing	Continuing / Continuing	
AMP MWO Material													
	- / -	- / -	- / -	180 / 21.676	- / -	180 / 21.676	180 / 22.110	180 / 22.552	180 / 23.003	180 / 23.463	- / -	900 / 112.804	
Vehicle Generated Smoke													
	- / -	- / -	- / -	180 / 5.996	- / -	180 / 5.996	180 / 6.116	180 / 6.239	180 / 6.363	180 / 6.491	- / -	900 / 31.205	
Manual Traverse Mechanism													
	- / -	- / -	- / -	- / 1.384	- / -	- / 1.384	- / 1.411	- / 1.440	- / 1.470	- / 1.498	- / -	- / 17.203	
Subtotal: Recurring													
	1,412 / 766.995	564 / 229.825	334 / 181.929	536 / 187.631	- / -	536 / 187.631	536 / 183.056	449 / 191.743	449 / 193.615	449 / 215.486	Continuing / Continuing	Continuing / Continuing	
Non-Recurring													

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20					P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)					Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: Abrams Family of Vehicles				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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)	
Installation Kits	- / 283.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 283.400	
CROWS-LP Engineering Support	- / 6.283	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.283	
Subtotal: Non-Recurring	- / 289.683	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 289.683	
Subtotal: Abrams Field Upgrades	1,412 / 1,056.678	564 / 229.825	334 / 181.929	536 / 187.631	- / -	536 / 187.631	536 / 183.056	449 / 191.743	449 / 193.615	449 / 215.486	Continuing	Continuing	
Modification Item 4 of 10: Engineering Change Proposal SEPv3													
A Kits													
Recurring													
M1A2 SEPv3 Modification Kits	105 / 268.115	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	
Subtotal: Recurring	105 / 268.115	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	
Subtotal: Engineering Change Proposal SEPv3	105 / 268.115	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	
Modification Item 5 of 10: Armor													
A Kits													
Recurring													
Armor Sets	114 / 160.480	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	114 / 160.480	
Next Generation Armor	105 / 141.134	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	105 / 141.134	
Subtotal: Recurring	219 / 301.614	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	219 / 301.614	
Non-Recurring													
Installation Kits	821 / 526.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	821 / 526.800	
Subtotal: Non-Recurring	821 / 526.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	821 / 526.800	
Subtotal: Armor	1,040 / 828.414	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,040 / 828.414	
Modification Item 6 of 10: Program/Engineering Support													
A Kits													
Recurring													
Government Program Support	- / 169.459	- / 13.201	- / 6.664	- / 6.797	- / -	- / 6.797	- / 6.933	- / 7.072	- / 7.213	- / 7.358	Continuing	Continuing	
Contractor Program Support	- / 16.223	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
Government Test Support	- / 126.312	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
Subtotal: Recurring	- / 211.994	- / 13.201	- / 6.664	- / 6.797	- / -	- / 6.797	- / 6.933	- / 7.072	- / 7.213	- / 7.358	Continuing	Continuing	
Subtotal: Program/Engineering Support	- / 211.994	- / 13.201	- / 6.664	- / 6.797	- / -	- / 6.797	- / 6.933	- / 7.072	- / 7.213	- / 7.358	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2021 Army											Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20				P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)							Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)		
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: Abrams Family of Vehicles				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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 7 of 10: Power Pack Improvement and Integration													
A Kits													
Recurring													
System Technical Support	- / 147.564	- / 19.889	- / 17.000	- / 16.607	- / -	- / 16.607	- / 16.804	- / 16.153	- / 12.333	- / 12.274	Continuing	Continuing	
Subtotal: Recurring	- / 147.564	- / 19.889	- / 17.000	- / 16.607	- / -	- / 16.607	- / 16.804	- / 16.153	- / 12.333	- / 12.274	Continuing	Continuing	
Non-Recurring													
Installation Kits	2,691 / 930.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
Subtotal: Non-Recurring	2,691 / 930.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
Subtotal: Power Pack Improvement and Integration	2,691 / 1,077.864	- / 19.889	- / 17.000	- / 16.607	- / -	- / 16.607	- / 16.804	- / 16.153	- / 12.333	- / 12.274	Continuing	Continuing	
Modification Item 8 of 10: Training Devices													
A Kits													
Recurring													
Training Equipment Modifications	- / 155.173	- / 20.799	- / 19.150	- / 26.100	- / -	- / 26.100	- / 23.855	- / 21.361	- / 21.338	- / 11.758	Continuing	Continuing	
Subtotal: Recurring	- / 155.173	- / 20.799	- / 19.150	- / 26.100	- / -	- / 26.100	- / 23.855	- / 21.361	- / 21.338	- / 11.758	Continuing	Continuing	
Subtotal: Training Devices	- / 155.173	- / 20.799	- / 19.150	- / 26.100	- / -	- / 26.100	- / 23.855	- / 21.361	- / 21.338	- / 11.758	Continuing	Continuing	
Modification Item 9 of 10: Facilities Optimization and Maintenance													
A Kits													
Recurring													
Production Line Optimization	- / 169.981	- / 181.679	- / 75.449	- / 57.462	- / -	- / 57.462	- / 43.421	- / 50.750	- / 54.800	- / 97.439	Continuing	Continuing	
Subtotal: Recurring	- / 169.981	- / 181.679	- / 75.449	- / 57.462	- / -	- / 57.462	- / 43.421	- / 50.750	- / 54.800	- / 97.439	Continuing	Continuing	
Subtotal: Facilities Optimization and Maintenance	- / 169.981	- / 181.679	- / 75.449	- / 57.462	- / -	- / 57.462	- / 43.421	- / 50.750	- / 54.800	- / 97.439	Continuing	Continuing	
Modification Item 10 of 10: Survivability Enhancements													
A Kits													
Recurring													
A-Kit Logistics Support	- / -	- / 2.500	- / 8.753	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.253	
Turret Mitigation	- / -	- / -	- / -	188 / 52.734	- / -	188 / 52.734	188 / 53.788	188 / 54.864	188 / 55.962	188 / 107.801	- / -	940 / 325.149	
Active Protection System (APS)	- / 52.000	- / 56.664	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 108.664	
APS Logistics Support	- / -	- / -	- / -	- / 44.682	- / -	- / 44.682	- / 46.203	- / 45.258	- / 44.038	- / 44.919	- / -	- / 225.100	

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20				P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)						Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: Abrams Family of Vehicles				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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: Recurring</i>	- / 52.000	- / 59.164	- / 8.753	188 / 97.416	- / -	188 / 97.416	188 / 99.991	188 / 100.122	188 / 100.000	188 / 152.720	- / -	940 / 670.166	
Non-Recurring													
Turret Mitigation	- / -	- / 126.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 126.500	
<i>Subtotal: Non-Recurring</i>	- / -	- / 126.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 126.500	
B Kits													
Recurring													
B-Kit Logistics Support	- / -	- / -	- / 40.087	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 40.087	
APS	94 / 158.921	282 / 240.519	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	376 / 399.440	
<i>Subtotal: Recurring</i>	94 / 158.921	282 / 240.519	- / 40.087	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	376 / 439.527	
Non-Recurring													
Countermeasures - APS	- / 19.900	- / 66.032	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 85.932	
<i>Subtotal: Non-Recurring</i>	- / 19.900	- / 66.032	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 85.932	
<i>Subtotal: Survivability Enhancements</i>	94 / 230.821	282 / 492.215	- / 48.840	188 / 97.416	- / -	188 / 97.416	188 / 99.991	188 / 100.122	188 / 100.000	188 / 152.720	- / -	1,316 / 1,322.125	
<i>Subtotal: Procurement, All Modification Items</i>	5,342 / 6,841.074	846 / 959.041	334 / 349.032	724 / 392.013	- / -	724 / 392.013	724 / 374.060	637 / 387.201	637 / 389.299	637 / 497.035	Continuing	Continuing	
Installation													
<i>Modification Item 4 of 10:</i> Engineering Change Proposal SEpv3	105 / 119.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
<i>Modification Item 10 of 10:</i> Survivability Enhancements	- / -	- / -	376 / 4.260	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
<i>Subtotal: Installation</i>	105 / 119.409	- / -	376 / 4.260	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total													
Total Cost (Procurement + Support + Installation)	6,960.483	959.041	353.292	392.013	-	392.013	374.060	387.201	389.299	497.035	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)			Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 1 of 10: FY 2019 NDAA SEC 825 MDAP Cost Overrun							
Manufacturer Information							
Manufacturer Name: various				Manufacturer Location: various			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): various					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)			Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 2 of 10: Prior Year Closed Mods							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Various					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)			Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 3 of 10: Abrams Field Upgrades							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Contractor Teams (Contract dates will vary by item and cannot be predicted)					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)	Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)
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ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Modification Item 4 of 10: Engineering Change Proposal SEpv3

Manufacturer Information

Manufacturer Name: General Dynamics and Anniston Army Depot	Manufacturer Location: ANAD Alabama and JSMC Lima Ohio
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Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 24
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Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Various

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	105 / 119.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	105 / 119.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing

Installation Schedule

PYS	FY 2019	FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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						
In	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105
Out	31	20	19	21	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)			Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:			
Modification Item 5 of 10: Armor							
Manufacturer Information							
Manufacturer Name: Department of Energy				Manufacturer Location: Various			
Administrative Leadtime (in Months): 7				Production Leadtime (in Months): 12			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Armor package will be applied during ECP SEP v3 vehicle recapitalization					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)			Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 6 of 10: Program/Engineering Support							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months):				Production Leadtime (in Months): 1			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023	Oct 2024
Delivery Dates	Nov 2018	Nov 2019	Nov 2020	Nov 2021	Nov 2022	Nov 2023	Nov 2024
Installation Information							
Method of Implementation (Organic): Various					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)			Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 7 of 10: Power Pack Improvement and Integration							
Manufacturer Information							
Manufacturer Name: Honeywell and Allison Transmission				Manufacturer Location: Phoenix Arizona and Indianapolis Indiana			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Contractor Support (Contract dates will vary by item and cannot be predicted)					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)			Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 8 of 10: Training Devices							
Manufacturer Information							
Manufacturer Name: PEO Simulation Training and Instrumentation					Manufacturer Location: Orlando Florida		
Administrative Leadtime (in Months):					Production Leadtime (in Months):		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Various (Contract dates will vary by item and cannot be predicted)					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)			Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 9 of 10: Facilities Optimization and Maintenance							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Various (Contract dates will vary by item and cannot be predicted)					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: 6406GA0700 / M1 Abrams Tank (MOD)	Modification Number / Title: GA0700 / M1 Abrams Tank (MOD)
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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: General Dynamics Land Systems	Manufacturer Location: Sterling Heights, MI
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Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 10
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Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023	Dec 2024
Delivery Dates	Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023	Oct 2024	Oct 2025

Installation Information

Method of Implementation: Contract FFP

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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	- / -	- / -	94 / 1.161	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2019	- / -	- / -	282 / 3.099	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	376 / 4.260	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				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	-	-	-	-	-	94	130	152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	94	94	94	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1,412	168	165	89	-	89	97	102	101	113	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	10,413.360	1,527.243	1,746.007	1,033.253	-	1,033.253	1,117.837	1,432.396	1,410.176	1,577.193	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	2,064.494	-	-	-	-	-	-	-	-	-	-	2,064.494
Net Procurement (P-1) (<i>\$ in Millions</i>)	8,348.866	1,527.243	1,746.007	1,033.253	-	1,033.253	1,117.837	1,432.396	1,410.176	1,577.193	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	2,064.494	-	-	-	-	-	-	-	-	-	-	2,064.494
Total Obligation Authority (<i>\$ in Millions</i>)	10,413.360	1,527.243	1,746.007	1,033.253	-	1,033.253	1,117.837	1,432.396	1,410.176	1,577.193	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>)	7,374.901	9,090.732	10,581.861	11,609.584	-	11,609.584	11,524.093	14,043.098	13,962.139	13,957.460	Continuing	Continuing

Description:

The purpose of this program is to upgrade existing Abrams tank variants to the M1A2 SEPv3 tank configuration in order to enhance tank survivability, the automotive power pack, computer systems, night vision capabilities, and provide total package fielding and new equipment training. The M1A2 SEPv3 incorporates turret and hull armor upgrades, including reactive armor tiles and countermines, for enhanced crew survivability; Total Integrated Engine Revitalization (TIGER) engine and upgraded transmission for improved power pack reliability and durability; improved computer systems to include microprocessors, color flat panel displays, memory capacity, Soldier-Machine Interface (SMI), a new operating system designed to run the Common Operating Environment (COE) software; and Block 1 Second Generation Forward Looking Infra-Red (FLIR) technology in the Gunner's Primary Sight (GPS) and the Commander's Independent Thermal Viewer (CITV) Sight Assembly for improved thermal ranging night vision capabilities. The Abrams Upgrade Program will modify and upgrade the Abrams tank while improving and maintaining production processes that involve or support the Abrams Industrial Base requirements for the current and future Abrams tank.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	168	165	89	-	89	97	102	101	113
	Total Obligation Authority	1,527.243	1,746.007	1,033.253	-	1,033.253	1,117.837	1,432.396	1,410.176	1,577.193
Total: Secondary Distribution	Quantity	168	165	89	-	89	97	102	101	113
	Total Obligation Authority	1,527.243	1,746.007	1,033.253	-	1,033.253	1,117.837	1,432.396	1,410.176	1,577.193

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		1,412 / 10,413.360	168 / 1,527.243	165 / 1,746.007	89 / 1,033.253	- / -	89 / 1,033.253
P-40	Total Gross/Weapon System Cost				1,412 / 10,413.360	168 / 1,527.243	165 / 1,746.007	89 / 1,033.253	- / -	89 / 1,033.253

*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 2021 Base Procurement dollars in the amount of \$1,033.253 million supports the upgrade and assembly of 89 Abrams tank variants to the M1A2 SEPv3 tank variant. Upgrade enhances tank survivability, the automotive power pack, computer systems and night vision capabilities. The M1A2 SEPv3 incorporates turret and hull armor upgrades for enhanced crew survivability. This upgrade is part of the Engineering Change Proposal that addresses capability gaps on the tank fleet. The program upgrades will begin at Anniston Army Depot (ANAD) and finish at General Dynamics Land Systems (GDLS) in Lima, OH.

In accordance with Section 1815 of the FY2008 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.

In FY 2021, \$.979 million in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

Army Acquisition Objective: 2,101

P40 quantity:
 FY 2019: Actual Quantity is 176.
 FY 2020: Actual Quantity is 171

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	1,412	168	165	89	-	89
Gross/Weapon System Cost (\$ in Millions)	10,413.360	1,527.243	1,746.007	1,033.253	-	1,033.253
Less PY Advance Procurement (\$ in Millions)	2,064.494	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	8,348.866	1,527.243	1,746.007	1,033.253	-	1,033.253
Plus CY Advance Procurement (\$ in Millions)	2,064.494	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	10,413.360	1,527.243	1,746.007	1,033.253	-	1,033.253

(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)	7,374.901	9,090.732	10,581.861	11,609.584	-	11,609.584

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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 ⁽¹⁾	3,943.089	1,755	6,920.121	4,379.807	176	770.846	4,464.778	171	763.477	5,027.854	89	447.479	-	-	-	5,027.854	89	447.479
Government Furnished Equipment (GFE)	-	-	1,557.950	-	-	345.083	-	-	456.646	-	-	281.874	-	-	-	-	-	281.874
Pre-Modification Vehicle Teardown/ Refurb	-	-	114.667	-	-	184.721	-	-	250.234	-	-	137.078	-	-	-	-	-	137.078
TPF/New Equipment Training	-	-	219.531	-	-	24.732	-	-	36.196	-	-	19.404	-	-	-	-	-	19.404
Government Support	-	-	1,143.734	-	-	25.893	-	-	25.961	-	-	26.480	-	-	-	-	-	26.480
Transmissions	-	-	166.470	-	-	50.081	-	-	65.812	-	-	34.870	-	-	-	-	-	34.870
Forward Looking Infrared (FLIR)	-	-	196.168	-	-	113.775	-	-	134.234	-	-	71.202	-	-	-	-	-	71.202
Industrial Base Mitigation Support/ Facilities Optimization and Maintenance	-	-	94.719	-	-	10.319	-	-	13.446	-	-	14.866	-	-	-	-	-	14.866
Subtotal: Recurring Cost	-	-	10,413.360	-	-	1,525.450	-	-	1,746.006	-	-	1,033.253	-	-	-	-	-	1,033.253
Non Recurring Cost																		
FY 2019 NDAA SEC 825 MDAP Cost Overrun	-	-	-	-	-	1.793	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	1.793	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20		P-1 Line Item Number / Title: 6500GA0750 / 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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Subtotal: Flyaway Cost	-	-	10,413.360	-	-	1,527.243	-	-	1,746.006	-	-	1,033.253	-	-	-	-	-	1,033.253
Gross/Weapon System Cost	7,374.901	1,412	10,413.360	9,090.732	168	1,527.243	10,581.861	165	1,746.007	11,609.584	89	1,033.253	-	-	-	11,609.584	89	1,033.253

Remarks:

FY19 unit cost = Two different variants (M1A1 SA and M1A1) were inducted. M1A1 tanks have increased costs, over M1A1 SA tanks, due to the need for new FLIR Components, new armor, and TIGER engines. Mixed variants allowed for higher M1A1 costs to be offset by lower M1A1 SA costs.

FY20 unit cost = High quantity of tanks awarded allowed for lower unit cost on GDLS production contract and FLIR components. Ongoing FMS production allows for reduced armor cost due to manufacturing efficiency. TIGER engines require major rework due to age of M1A1 tanks being inducted. Increased quantity of new gun tubes purchased due to higher washout from older M1A1 tanks being inducted.

FY21 unit cost = Higher unit cost due to lower quantity of tanks be awarded, then in previous years, for GDLS production contract and FLIR components. Loss of armor manufacturing efficiency due to no FMS armor production programs. TIGER engines require major rework due to age of M1A1 tanks being inducted.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	168	165	89	-	89
	Total Obligation Authority	1,527.243	1,746.007	1,033.253	-	1,033.253
Total:	Quantity	168	165	89	-	89
Secondary Distribution	Total Obligation Authority	1,527.243	1,746.007	1,033.253	-	1,033.253

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

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

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 ^(†)		2017	GDLS / Sterling Heights, MI	SS / FPIF	TACOM-Warren	Dec 2017	Jun 2019	28	5,939.750	N		
Basic Vehicle ^(†)		2018	GDLS / Sterling Heights, MI	SS / FPIF	TACOM-Warren	Dec 2017	Sep 2019	120	4,656.042	N		
Basic Vehicle ^(†)		2019	GDLS / Sterling Heights, MI	SS / FPIF	TACOM- Warren	Dec 2018	Sep 2020	176	4,379.807	N		
Basic Vehicle ^(†)		2020	GDLS / Sterling Heights, MI	SS / FPIF	TACOM-Warren	Mar 2020	Sep 2021	171	4,464.778	N		
Basic Vehicle ^(†)		2021	GDLS / Sterling Heights, MI	SS / FPIF	TACOM-Warren	Mar 2021	Sep 2022	89	5,027.854	N		

^(†) indicates the presence of a P-21

Remarks:
GDLS-Prime Contractor, Sterling Heights, MI
Manufactured at JSMC, Lima, OH

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Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

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 2018													Fiscal Year 2019													BALANCE			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018													Calendar Year 2019														
							O C T	N O V	D E C	J A N	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: 1607																																		
1		2017	ARMY	28	0	28				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	5	11	9	
1		2018	ARMY	120	0	120				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	119	
1		2018	FMS (†)	351	0	351				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	9	333	
1		2018	Total	471	0	471				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	10	452		
1		2019	ARMY	176	0	176																											176	
1		2020	ARMY	171	0	171																												171
1		2021	ARMY	89	0	89																												89
										O C T	N O V	D E C	J A N	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 2021 Army **Date:** February 2020

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 2020													Fiscal Year 2021													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 1 9	BAL DUE A S O F 1 O C T	Calendar Year 2020													Calendar Year 2021													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Basic Vehicle																																	
Prior Years Deliveries: 1607																																	
1	2017	ARMY	28	19	9	5	-	-	1	1	1	1																					0
1	2018	ARMY	120	1	119	6	11	11	11	11	11	11	11	12	12	12	-	-	-	-	-	-											0
1	2018	FMS (†)	351	18	333	9	19	21	23	23	23	23	23	23	23	23	23	21	14	14	14	14										0	
1	2018	Total	471	19	452	15	30	32	34	34	34	34	34	35	35	35	23	21	14	14	14	14	-	-	-	-	-	-	-	-	0		
1	2019	ARMY	176	0	176	-	-	-	-	-	-	-	-	-	-	-	12	14	15	15	15	15	15	15	15	15	15	15	15	15	15	0	
1	2020	ARMY	171	0	171																										15	156	
1	2021	ARMY	89	0	89																											89	

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Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

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 2022													Fiscal Year 2023													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022													Calendar Year 2023													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Basic Vehicle																																	
Prior Years Deliveries: 1607																																	
1		2017	ARMY	28	28	0																							0				
1		2018	ARMY	120	120	0																							0				
1		2018	FMS (†)	351	351	0																							0				
1		2018	Total	471	471	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
1		2019	ARMY	176	176	0																							0				
1		2020	ARMY	171	15	156	15	15	15	15	15	15	14	13	13	13	13												0				
1		2021	ARMY	89	0	89	-	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	7	7	7	7	7	7	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 2021 Army		Date: February 2020
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

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	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

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

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

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

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	991	1,535	1,068	-	-	-	-	-	-	-	-	3,594
Gross/Weapon System Cost (<i>\$ in Millions</i>)	791.362	14.581	12.500	-	-	-	-	-	-	-	-	818.443
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	791.362	14.581	12.500	-	-	-	-	-	-	-	-	818.443
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	791.362	14.581	12.500	-	-	-	-	-	-	-	-	818.443

(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>)	798.549	9.499	11.704	-	-	-	-	-	-	-	-	227.725

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 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	1,535	1,068	-	-	-	-	-	-	-
Total Obligation Authority	14.581	12.500	-	-	-	-	-	-	-
Total:	1,535	1,068	-	-	-	-	-	-	-
Secondary Distribution	14.581	12.500	-	-	-	-	-	-	-

Justification:

FY 2021 Base procurement dollars in the amount of \$0.000 million.

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 2021 Army **Date:** February 2020

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: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	359	300	227	214	60	274	315	308	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	26.447	19.880	19.264	17.864	4.765	22.629	26.690	26.009	-	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	26.447	19.880	19.264	17.864	4.765	22.629	26.690	26.009	-	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	26.447	19.880	19.264	17.864	4.765	22.629	26.690	26.009	-	-	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>)	73.669	66.267	84.863	83.477	79.417	82.588	84.730	84.445	-	-	Continuing	Continuing

Description:

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	244	189	176	60	236	277	270	-
	Total Obligation Authority	16.461	18.868	14.878	4.765	19.643	23.704	23.254	-
ANG	Quantity	46	38	38	-	38	38	38	-
	Total Obligation Authority	2.707	0.396	2.986	-	2.986	2.986	2.755	-
AR	Quantity	10	-	-	-	-	-	-	-
	Total Obligation Authority	0.712	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	300	227	214	60	274	315	308	-
	Total Obligation Authority	19.880	19.264	17.864	4.765	22.629	26.690	26.009	-

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		359 / 26.447	300 / 19.880	227 / 19.264	214 / 17.864	60 / 4.765	274 / 22.629
P-40	Total Gross/Weapon System Cost				359 / 26.447	300 / 19.880	227 / 19.264	214 / 17.864	60 / 4.765	274 / 22.629

*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 2021 Base procurement dollars in the amount of \$17.864 million supports the Active Army and National Guard through the procurement of 214 M3E1 Lightweight recoilless rifle/launcher weapon systems, fire control, sub caliber adapters, and initial spares. Funds will also provide for all program support, transport and fielding of the weapon system. 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.

FY 2021 OCO procurement dollars in the amount of \$4.765 million supports the procurement and transport of 60 current M3's and associated items of equipment for the US Army and coalition forces assisting Operation Inherent Resolve's (OIR) mission of supporting Iraqi Security Force operations against the Islamic State of Iraq and the Levant (ISIL).

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.

AAO: 2,460

P40 quantity:
 FY 2020: Actual quantity is 227.

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)		359	300	227	214	60	274
Gross/Weapon System Cost (\$ in Millions)		26.447	19.880	19.264	17.864	4.765	22.629
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)		26.447	19.880	19.264	17.864	4.765	22.629
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)		26.447	19.880	19.264	17.864	4.765	22.629

(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)		73.669	66.267	84.863	83.477	79.417	82.588

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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 ^(†)	35.000	349	12.215	27.460	300	8.238	30.537	226	6.901	32.304	214	6.913	-	-	-	32.304	214	6.913
Fire Control ^(†)	29.000	349	10.121	28.477	300	8.543	31.923	226	7.215	34.000	214	7.276	-	-	-	34.000	214	7.276
Sub Caliber Adapter ^(†)	6.500	70	0.455	4.300	300	1.290	4.282	226	0.968	6.598	214	1.412	-	-	-	6.598	214	1.412
<i>Subtotal: Recurring Cost</i>	-	-	22.791	-	-	18.071	-	-	15.084	-	-	15.601	-	-	-	-	-	15.601
Non Recurring Cost																		
M3 OCO ^(†)	-	-	-	-	-	-	36.000	28	1.008	-	-	-	36.000	60	2.160	36.000	60	2.160
M3 OCO Fire Control ^(†)	-	-	-	-	-	-	34.000	28	0.952	-	-	-	34.000	60	2.040	34.000	60	2.040
M3 OCO Sub Caliber Adapter ^(†)	-	-	-	-	-	-	6.500	28	0.182	-	-	-	6.500	60	0.390	6.500	60	0.390
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	2.142	-	-	-	-	-	4.590	-	-	4.590
<i>Subtotal: Hardware Cost</i>	-	-	22.791	-	-	18.071	-	-	17.226	-	-	15.601	-	-	4.590	-	-	20.191
Logistics Cost																		
Recurring Cost																		
M3A1 Transport	-	-	-	-	-	-	-	-	0.035	-	-	0.285	-	-	-	-	-	0.285
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	0.035	-	-	0.285	-	-	-	-	-	0.285
Non Recurring Cost																		
M3 OCO Transport	-	-	-	-	-	-	-	-	0.024	-	-	-	-	-	0.065	-	-	0.065

LI 3736G13101 - MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL
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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	0.024	-	-	-	-	-	0.065	-	-	0.065
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	0.059	-	-	0.285	-	-	0.065	-	-	0.350
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	-	-	-	0.188	-	-	0.241	-	-	0.240	-	-	0.055	-	-	0.295
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	-	-	-	0.188	-	-	0.241	-	-	0.240	-	-	0.055	-	-	0.295
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	1.479	-	-	0.381	-	-	0.475	-	-	0.475	-	-	0.055	-	-	0.530
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	1.479	-	-	0.381	-	-	0.475	-	-	0.475	-	-	0.055	-	-	0.530
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	0.390	-	-	0.518	-	-	0.518	-	-	-	-	-	0.518
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	-	-	-	0.390	-	-	0.518	-	-	0.518	-	-	-	-	-	0.518
Support - Program Management Cost																		
Government Management	-	-	2.177	-	-	0.850	-	-	0.745	-	-	0.745	-	-	-	-	-	0.745
<i>Subtotal: Support - Program Management Cost</i>	-	-	2.177	-	-	0.850	-	-	0.745	-	-	0.745	-	-	-	-	-	0.745
Gross/Weapon System Cost	73.669	359	26.447	66.267	300	19.880	84.863	227	19.264	83.477	214	17.864	79.417	60	4.765	82.588	274	22.629

Remarks:
None

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	244	189	176	60	236
	Total Obligation Authority	16.461	18.868	14.878	4.765	19.643
ANG	Quantity	46	38	38	-	38
	Total Obligation Authority	2.707	0.396	2.986	-	2.986
AR	Quantity	10	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
	Total Obligation Authority	0.712	-	-	-	-
Total:	Quantity	300	227	214	60	274
Secondary Distribution	Total Obligation Authority	19.880	19.264	17.864	4.765	22.629

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

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
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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
M3A1		2018	Saab Dynamics AB / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Aug 2018	Dec 2018	349	35.000	Y		
M3A1		2019	Saab Dynamics AB / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Dec 2018	Feb 2019	300	27.460	Y		
M3A1		2020	Saab Dynamics AB / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Dec 2019	Apr 2020	226	30.537	Y		
M3A1		2021	Saab Dynamics AB / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Nov 2020	May 2021	214	32.304	Y		
Fire Control		2018	Aimpoint / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Aug 2018	Dec 2018	349	29.000	Y		
Fire Control		2019	Aimpoint / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Dec 2018	Feb 2019	300	28.477	Y		
Fire Control		2020	Aimpoint / Sweden	SS / IDDQ	ACC-NJ, Picatinny Arsenal, NJ	Dec 2019	Apr 2020	226	31.923	Y		
Fire Control		2021	Aimpoint / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Dec 2020	Apr 2021	214	34.000	Y		
Sub Caliber Adapter		2018	Saab Dynamics AB / Sweden	SS / IDDQ	Naval Surface Warfare Center, Crane, IN	Aug 2018	Dec 2018	70	6.500	Y		
Sub Caliber Adapter		2019	Saab Dynamics AB / Sweden	SS / IDIQ	Naval Surface Warfare Center, Crane, IN	Dec 2018	Feb 2019	300	4.300	Y		
Sub Caliber Adapter		2020	Saab Dynamics AB / Sweden	SS / IDIQ	Naval Surface Warfare Center, Crane, IN	Dec 2019	Apr 2020	226	4.282	Y		
Sub Caliber Adapter		2021	Saab Dynamics AB / Sweden	SS / IDIQ	Naval Surface Warfare Center, Crane, IN	Dec 2020	Apr 2021	214	6.598	Y		
M3 OCO		2020	Saab Dynamics AB / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Nov 2019	Mar 2020	28	36.000	Y		
M3 OCO	✓	2021	Saab Dynamics AB / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Nov 2020	May 2021	60	36.000	Y		
M3 OCO Fire Control		2020	Aimpoint / Sweden	SS / IDDQ	ACC-NJ, Picatinny Arsenal, NJ	Dec 2019	Apr 2020	28	34.000	Y		
M3 OCO Fire Control	✓	2021	Aimpoint / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Dec 2020	Apr 2021	60	34.000	Y		
M3 OCO Sub Caliber Adapter		2020	Saab Dynamics AB / Sweden	SS / IDIQ	Naval Surface Warfare Center, Crane, IN	Dec 2019	Apr 2020	28	6.500	Y		
M3 OCO Sub Caliber Adapter	✓	2021	Saab Dynamics AB / Sweden	SS / IDIQ	Naval Surface Warfare Center, Crane, IN	Dec 2020	Apr 2021	60	6.500	Y		

Remarks:
P-21 is not required, as all hardware items procured are COTS or COTS/NDI.

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army		Date: February 2020
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

LI 3736G13101 - MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL
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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	1,686	-	-	-	-	-	-	-	-	-	1,686
Gross/Weapon System Cost (<i>\$ in Millions</i>)	395.544	22.330	-	-	-	-	-	-	-	-	-	417.874
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	395.544	22.330	-	-	-	-	-	-	-	-	-	417.874
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	395.544	22.330	-	-	-	-	-	-	-	-	-	417.874

(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>)	-	13.244	-	-	-	-	-	-	-	-	-	247.849

Description:

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	1,686	-	-	-	-	-	-	-	-
Total Obligation Authority	22.330	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	1,686	-	-	-	-	-	-	-
	Total Obligation Authority	22.330	-	-	-	-	-	-	-

Justification:

FY 2021 Base procurement dollars in the amount of \$0.000 million.

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 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	482	209	218	54	80	134	36	46	36	54	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	410.636	24.312	33.026	10.288	10.460	20.748	11.678	11.558	10.018	16.791	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	410.636	24.312	33.026	10.288	10.460	20.748	11.678	11.558	10.018	16.791	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	410.636	24.312	33.026	10.288	10.460	20.748	11.678	11.558	10.018	16.791	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>)	851.942	116.325	151.495	190.519	130.750	154.836	324.389	251.261	278.278	310.944	Continuing	Continuing

Description:

Mortar Systems includes the production of 60mm Light Weight M224A1, 81mm Light Weight M252A1, 120mm M120A1/M121 Mortar Weapon Systems to include Armored Multi-Purpose Vehicle (AMPV), purchasing additional dismounted mortar systems for future manned and or unmanned vehicle platforms in the Infantry Brigade Combat Teams (IBCTs), and associated equipment to include procurement of the M326 Mortar Stowage Kit and M1101 trailer that are used with the M120A1 120mm towed mortar system. The Mortar Stowage Kit system enables rapid emplacement and displacement of the M120A1 from the M1101 Trailer.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	209	218	54	80	134	36	46	36	54
	Total Obligation Authority	24.312	33.026	10.288	10.460	20.748	11.678	11.558	10.018	16.791
Total: Secondary Distribution	Quantity	209	218	54	80	134	36	46	36	54
	Total Obligation Authority	24.312	33.026	10.288	10.460	20.748	11.678	11.558	10.018	16.791

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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, P-21	A		482 / 410.636	209 / 24.312	218 / 33.026	54 / 10.288	80 / 10.460	134 / 20.748
P-40	Total Gross/Weapon System Cost				482 / 410.636	209 / 24.312	218 / 33.026	54 / 10.288	80 / 10.460	134 / 20.748

*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 2021 Base procurement dollars in the amount of \$10.288 million supports the procurement of 18 each M121 120mm mortar systems for the Armored Multipurpose Vehicle (AMPV) Mortar Carrier Initial Operational Test and Evaluation (IOTE) and Low Rate Initial Production (LRIP) efforts, and additional dismounted mortar systems for future manned and or unmanned vehicle platforms in the Infantry Brigade Combat Teams (IBCT). In addition, funding is essential to fill shortages of 120mm mortar systems resulting from Army Reorganization of IBCTs from two Battalions per Brigade to three Battalions per Brigade. The funding will include production support costs for the acquisition, engineering, warehousing/storage/staging, logistics, transportation, fielding and new equipment training of the mortar weapon systems.

FY 2021 Overseas Contingency Operations (OCO) procurement dollars in the amount of \$10.460 million supports the procurement of 2 each M121 120mm mortar systems for the Armored Multipurpose Vehicle (AMPV), 20 each M120 (120mm) mortar systems, 20 each M326 Mortar Stowage Kits, and 38 each Light Tactical Trailers which are critical Army items consumed in support of deployed units' ongoing military operations including testing, fielding, staging, and transportation. Supports Operation Inherent Resolve (OIR).

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): 4,665

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Exhibit P-5, Cost Analysis: PB 2021 Army					Date: February 2020			
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:			
Resource Summary			Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)			482	209	218	54	80	134
Gross/Weapon System Cost (\$ in Millions)			410.636	24.312	33.026	10.288	10.460	20.748
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			410.636	24.312	33.026	10.288	10.460	20.748
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			410.636	24.312	33.026	10.288	10.460	20.748
<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)			851.942	116.325	151.495	190.519	130.750	154.836

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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																		
60mm Cannon Tubes ^(†)	31.432	175	5.501	30.261	22	0.666	-	-	-	-	-	-	-	-	-	-	-	-
60mm Mortar Component	31.614	175	5.532	58.431	22	1.285	-	-	-	-	-	-	-	-	-	-	-	-
60mm Mortar System ^(†)	21.611	175	3.782	21.611	22	0.475	-	-	-	-	-	-	-	-	-	-	-	-
81mm Cannon Tubes ^(†)	27.067	141	3.816	26.547	101	2.681	35.000	84	2.940	-	-	-	-	-	-	-	-	-
81mm Mortar Component	40.167	141	5.664	42.302	101	4.273	66.169	84	5.558	-	-	-	-	-	-	-	-	-
81mm Mortar System ^(†)	15.409	141	2.173	16.791	101	1.696	17.480	84	1.468	-	-	-	-	-	-	-	-	-
120mm Cannon Tubes ^(†)	30.065	158	4.750	34.193	63	2.154	40.000	85	3.400	-	-	-	-	-	-	-	-	-
120mm Mortar Component	16.795	158	2.654	15.270	63	0.962	23.598	85	2.006	-	-	-	-	-	-	-	-	-
120mm Mortar System ^(†)	48.999	158	7.742	49.156	63	3.097	53.744	85	4.568	135.077	18	2.431	135.077	20	2.702	135.077	38	5.133
M326 Mortar Stowage Kit ^(†)	98.664	4	0.395	98.664	23	2.269	103.169	49	5.055	105.000	18	1.890	105.000	20	2.100	105.000	38	3.990
Light Tactical Trailer ^(†)	-	-	-	-	-	-	-	-	-	-	-	-	10.000	38	0.380	10.000	38	0.380

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Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
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:							
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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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
120mm (M121) Mortar System ^(†)	-	-	-	-	-	-	-	-	-	124.730	18	2.245	124.730	2	0.249	124.730	20	2.495
<i>Subtotal: Recurring Cost</i>	-	-	42.008	-	-	19.558	-	-	24.996	-	-	6.567	-	-	5.431	-	-	11.998
<i>Subtotal: Hardware Cost</i>	-	-	42.008	-	-	19.558	-	-	24.996	-	-	6.567	-	-	5.431	-	-	11.998
Logistics Cost																		
Recurring Cost																		
Government ILS	-	-	0.904	-	-	0.425	-	-	0.545	-	-	0.550	-	-	-	-	-	0.550
<i>Subtotal: Recurring Cost</i>	-	-	0.904	-	-	0.425	-	-	0.545	-	-	0.550	-	-	-	-	-	0.550
<i>Subtotal: Logistics Cost</i>	-	-	0.904	-	-	0.425	-	-	0.545	-	-	0.550	-	-	-	-	-	0.550
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	1.185	-	-	0.540	-	-	0.750	-	-	0.300	-	-	0.250	-	-	0.550
First Article Test	-	-	1.145	-	-	0.450	-	-	0.701	-	-	0.296	-	-	0.750	-	-	1.046
<i>Subtotal: Support - Acceptance Testing Cost</i>	-	-	2.330	-	-	0.990	-	-	1.451	-	-	0.596	-	-	1.000	-	-	1.596
Support - Fielding Cost																		
Fielding	-	-	1.123	-	-	0.500	-	-	1.000	-	-	0.500	-	-	0.600	-	-	1.100
<i>Subtotal: Support - Fielding Cost</i>	-	-	1.123	-	-	0.500	-	-	1.000	-	-	0.500	-	-	0.600	-	-	1.100
Support - Production Engineering Cost																		
Production Engineering	-	-	362.005	-	-	1.579	-	-	3.180	-	-	1.350	-	-	2.329	-	-	3.679
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	362.005	-	-	1.579	-	-	3.180	-	-	1.350	-	-	2.329	-	-	3.679
Support - Staging and Transportation Cost																		
Staging and Transportation	-	-	1.391	-	-	0.810	-	-	1.354	-	-	0.425	-	-	0.700	-	-	1.125
<i>Subtotal: Support - Staging and Transportation Cost</i>	-	-	1.391	-	-	0.810	-	-	1.354	-	-	0.425	-	-	0.700	-	-	1.125
Support - Training Cost																		
Services	-	-	0.875	-	-	0.450	-	-	0.500	-	-	0.300	-	-	0.400	-	-	0.700
<i>Subtotal: Support - Training Cost</i>	-	-	0.875	-	-	0.450	-	-	0.500	-	-	0.300	-	-	0.400	-	-	0.700
Gross/Weapon System Cost	851.942	482	410.636	116.325	209	24.312	151.495	218	33.026	190.519	54	10.288	130.750	80	10.460	154.836	134	20.748

Remarks:

Note Unit Costs appear to be increased in FY21 due to reflecting procurement items at a system level.
 Note 120mm (M121) Mortar System reflects AMPV (mounted) & 120mm (M120A1) Mortar System (dismounted)

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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:

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	209	218	54	80	134
	Total Obligation Authority	24.312	33.026	10.288	10.460	20.748
Total:	Quantity	209	218	54	80	134
Secondary Distribution	Total Obligation Authority	24.312	33.026	10.288	10.460	20.748

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

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

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
60mm Cannon Tubes		2019	Watervliet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2019	Oct 2019	22	30.261	Y		
60mm Cannon Tubes		2020	Watervliet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2020	Oct 2020	0	0.000	Y		
60mm Mortar System		2019	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2019	Jul 2021	22	21.611	Y		
60mm Mortar System		2020	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2020	Jul 2022	0	0.000	Y		
81mm Cannon Tubes		2019	Watervliet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2019	Oct 2019	101	26.547	Y		
81mm Cannon Tubes		2020	Watervliet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2020	Oct 2020	84	35.000	Y		
81mm Mortar System		2019	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2019	Jul 2021	101	16.791	Y		
81mm Mortar System		2020	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2020	Jul 2022	84	17.480	Y		
120mm Cannon Tubes		2019	Watervliet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2019	Oct 2019	63	34.193	Y		
120mm Cannon Tubes		2020	Watervliet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2020	Oct 2020	85	40.000	Y		
120mm Mortar System ^(†)		2019	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2019	Jul 2021	63	49.156	Y		
120mm Mortar System ^(†)		2020	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2020	Jul 2022	85	53.744	Y		
120mm Mortar System ^(†)		2021	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2021	Jul 2023	18	135.077	Y		
120mm Mortar System	✓	2021	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2021	Jul 2023	20	135.077	Y		
M326 Mortar Stowage Kit		2019	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Feb 2019	Mar 2020	23	98.664	Y		
M326 Mortar Stowage Kit		2020	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Feb 2020	Mar 2021	49	103.169	Y		
M326 Mortar Stowage Kit		2021	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2021	Jul 2023	18	105.000	Y		
M326 Mortar Stowage Kit	✓	2021	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2021	Jul 2023	20	105.000	Y		
Light Tactical Trailer	✓	2021	Sierra Army Depot / Sierra, NV	MIPR	Picatinny Arsenal, NJ	Mar 2021	Mar 2022	38	10.000	Y		
120mm (M121) Mortar System	✓	2021	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2021	Jul 2023	2	124.730	Y		
120mm (M121) Mortar System		2021	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2021	Jul 2023	18	124.730	Y		

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

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 <i>(Units in Each)</i>						Fiscal Year 2019												Fiscal Year 2020												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
120mm Mortar System																															
Prior Years Deliveries: 158																															
	1	2019	ARMY	63	0	63																								63	
	1	2020	ARMY	85	0	85																								85	
	1	2021	ARMY	18	0	18																								18	
							O C T	N O V	D E C	J A N	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 2021 Army **Date:** February 2020

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

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2021													Fiscal Year 2022													BALANCE			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				
120mm Mortar System																																		
Prior Years Deliveries: 158																																		
1	2019	ARMY		63	0	63	-	-	-	-	-	-	-	-	-	-	12	12	12	14	13													0
1	2020	ARMY		85	0	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	26	9
1	2021	ARMY		18	0	18																											18	
							O C T	N O V	D E C	J A N	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 2021 Army **Date:** February 2020

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

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
120mm Mortar System																															
Prior Years Deliveries: 158																															
1		2019	ARMY	63	63	0																							0		
1		2020	ARMY	85	76	9																							9		
1		2021	ARMY	18	0	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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 2021 Army								Date: February 2020				
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				
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	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	EFW Inc - Fort Worth, TX	60	100	165	15	5	28	33	3	5	28	33

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

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

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	246.489	18.197	0.717	5.969	-	5.969	9.907	11.872	14.441	17.982	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	246.489	18.197	0.717	5.969	-	5.969	9.907	11.872	14.441	17.982	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	246.489	18.197	0.717	5.969	-	5.969	9.907	11.872	14.441	17.982	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>)	-	-	4.780	6.337	-	6.337	5.173	5.708	4.530	5.574	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 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 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 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 GLMs will also be fitted with an additional system components, such as a 40mm fuze programmer, to support the air burst capability to be delivered by the new 40mm Family of Ammunition (FOA).

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	18.197	0.717	5.969	-	5.969	9.907	11.872	14.441	17.982
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	18.197	0.717	5.969	-	5.969	9.907	11.872	14.441	17.982

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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)

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		- / 246.489	- / 18.197	- / 0.717	- / 5.969	- / -	- / 5.969
P-40	Total Gross/Weapon System Cost				- / 246.489	- / 18.197	- / 0.717	- / 5.969	- / -	- / 5.969

*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 2021 Base procurement dollars in the amount of \$5.969 million supports M320 GLM system fielding efforts, procurement of Grenadier Sighting Systems (GSS) and required engineering studies to address the need for a new leaf sight and improved butt stock. The GSS provides the ability to engage targets during day or night and is capable of multiple ballistic solutions which can be differentiated by the user.

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.

M320's Grenade Launcher Army Acquisition Objective (AAO) of 73,024 was met in FY2016 (WTCV 2016 funds with D.O. 0005 for 4,164 M320A1s (Grow the Army))

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	246.489	18.197	0.717	5.969	-	5.969
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	246.489	18.197	0.717	5.969	-	5.969
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	246.489	18.197	0.717	5.969	-	5.969

(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)	-	-	4.780	6.337	-	6.337

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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) ^(†)	4.873	35,925	175.067	1.700	9,422	16.017	-	-	-	-	-	-	-	-	-	-	-	-
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 & Leafsight	-	-	-	-	-	-	-	-	-	0.531	2,150	1.141	-	-	-	0.531	2,150	1.141
Grenadier Sighting System (GSS) ^(†)	-	-	-	-	-	-	-	-	-	1.900	2,150	4.085	-	-	-	1.900	2,150	4.085
<i>Subtotal: Recurring Cost</i>	-	-	203.796	-	-	16.017	-	-	-	-	-	5.226	-	-	-	-	-	5.226
<i>Subtotal: Flyaway Cost</i>	-	-	203.796	-	-	16.017	-	-	-	-	-	5.226	-	-	-	-	-	5.226
Package Fielding Cost																		
Recurring Cost																		
Total Package Fielding (TPF)	-	-	4.570	-	-	0.070	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	4.570	-	-	0.070	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Package Fielding Cost</i>	-	-	4.570	-	-	0.070	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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:
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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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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																		
Recurring Cost																		
Integrated Logistics Support (ILS)	-	-	2.251	-	-	0.020	-	-	-	-	-	-	-	-	-	-	-	-
New Equipment Training (NET)	-	-	0.356	-	-	0.010	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>2.607</i>	-	-	<i>0.030</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Logistics Cost</i>	-	-	<i>2.607</i>	-	-	<i>0.030</i>	-	-	-	-	-	-	-	-	-	-	-	-
Support - Acceptance Testing Cost																		
First Article Test	-	-	5.921	-	-	1.482	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Acceptance Testing Cost</i>	-	-	<i>5.921</i>	-	-	<i>1.482</i>	-	-	-	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Government Management	-	-	6.341	-	-	0.575	-	-	0.717	-	-	0.742	-	-	-	-	-	0.742
<i>Subtotal: Support - Program Management Cost</i>	-	-	<i>6.341</i>	-	-	<i>0.575</i>	-	-	<i>0.717</i>	-	-	<i>0.742</i>	-	-	-	-	-	<i>0.742</i>
Support - System Engineering Cost																		
System Engineering	-	-	17.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - System Engineering Cost</i>	-	-	<i>17.700</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Training Cost																		
Equipment	-	-	5.580	-	-	0.023	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Training Cost</i>	-	-	<i>5.580</i>	-	-	<i>0.023</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	246.489	-	-	18.197	4.780	-	0.717	6.337	-	5.969	-	-	-	6.337	-	5.969

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	18.197	0.717	5.969	-	5.969
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	18.197	0.717	5.969	-	5.969

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

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
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
M320A1 Grenade Launcher (GL)		2019	Wilcox / Portsmouth, NH	C / FFP	ACC-Picatinny, Picatinny, NJ	Jun 2019	Dec 2019	9,422	1.700	Y		
Grenadier Sighting System (GSS)		2021	Wilcox / Portsmouth, NH	C / FFP	ACC-Picatinny, Picatinny, NJ	Dec 2020	Mar 2021	2,150	1.900	Y		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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): 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	493	536	-	536	650	331	269	266	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	5.747	10.137	-	10.137	12.100	6.285	5.213	5.994	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	5.747	10.137	-	10.137	12.100	6.285	5.213	5.994	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	5.747	10.137	-	10.137	12.100	6.285	5.213	5.994	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>)	-	-	11.657	18.912	-	18.912	18.615	18.988	19.379	22.534	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). 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 material targets at extreme ranges. The PSR provides increased probability of hit over the current M2010 configuration at distances beyond twelve-hundred (1200) meters, which enhances the sniper role in supporting combat operations and improves sniper survivability. The PSR provides extended effective range by three-hundred (300) meters over M2010 out to fifteen-hundred (1500) meters, which increases stand-off distances ensuring overmatch against enemy counter sniper engagements and increases sniper capability. The PSR also replaces the anti-material M107 sniper rifle, offering improved accuracy in a lighter weight package. The PSR includes a sound suppressor and direct view optics (with fire control capabilities), which 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	446	536	-	536	650	331	269	266
Total Obligation Authority	-	5.123	10.137	-	10.137	12.100	6.285	5.213	5.994
ANG									
Quantity	-	47	-	-	-	-	-	-	-
Total Obligation Authority	-	0.624	-	-	-	-	-	-	-
Total: Secondary Distribution									
Quantity	-	493	536	-	536	650	331	269	266
Total Obligation Authority	-	5.747	10.137	-	10.137	12.100	6.285	5.213	5.994

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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): 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

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	B		- / -	- / -	493 / 5.747	536 / 10.137	- / -	536 / 10.137
P-40	Total Gross/Weapon System Cost				- / -	- / -	493 / 5.747	536 / 10.137	- / -	536 / 10.137

*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 2021 Base procurement dollars in the amount of \$10.137 million supports the Active Army through procurement of 536 Precision Sniper Rifle (PSR) Systems. 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 material targets at extreme ranges. The PSR provides increased probability of hit over the current M2010 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.

AAO: 3,131

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.

P40 quantity:
 FY 2020: Actual Quantity is 357

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	493	536	-	536
Gross/Weapon System Cost (\$ in Millions)	-	-	5.747	10.137	-	10.137
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	5.747	10.137	-	10.137
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	5.747	10.137	-	10.137

(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)	-	-	11.657	18.912	-	18.912

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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 ^(†)	-	-	-	-	-	-	12.493	357	4.460	15.869	536	8.506	-	-	-	15.869	536	8.506
Engineering Support	-	-	-	-	-	-	-	-	0.309	-	-	0.385	-	-	-	-	-	0.385
Integrated Logistics Support (ILS)	-	-	-	-	-	-	-	-	0.179	-	-	0.229	-	-	-	-	-	0.229
Total Package Fielding (TPF)	-	-	-	-	-	-	-	-	0.140	-	-	0.178	-	-	-	-	-	0.178
New Equipment Training (NET)	-	-	-	-	-	-	-	-	0.659	-	-	0.839	-	-	-	-	-	0.839
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	5.747	-	-	10.137	-	-	-	-	-	10.137
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	5.747	-	-	10.137	-	-	-	-	-	10.137
Gross/Weapon System Cost	-	-	-	-	-	-	11.657	493	5.747	18.912	536	10.137	-	-	-	18.912	536	10.137

Remarks:

The PSR will be a Non-Developmental Item (NDI)/Commercial Off-The-Shelf (COTS). Program is in Source Selection fourth quarter FY2018 through second quarter FY2019 and the unit cost will be determined upon award. Anticipating NDI/ COTS solution; therefore, no P21 Form is needed at this time.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	446	536	-	536
	Total Obligation Authority	-	5.123	10.137	-	10.137

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Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020

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

		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution						
ANG	Quantity	-	47	-	-	-
	Total Obligation Authority	-	0.624	-	-	-
Total:	Quantity	-	493	536	-	536
Secondary Distribution	Total Obligation Authority	-	5.747	10.137	-	10.137

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

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

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		2020	Barrett Firearms / Murfreesboro TN	C / FFP	USSCCOM/SOF AT\$ - KR/ MacDill AFB, FL	Jul 2020	Oct 2020	357	12.493	Y		
Precision Sniper Rifle		2021	Barrett Firearms / Murfreesboro TN	C / FFP	USSCCOM/SOF AT\$ - KR/ MacDill AFB, FL	Jul 2021	Oct 2021	536	15.869	Y		

Remarks:
 The PSR is a Non-Developmental Item (NDI)/Commercial Off-The-Shelf (COTS). A multi-year IDIQ Contract (H92403-19-D-0002) with production options was awarded on 11-March-2019 to Barrett Firearms Manufacturing Inc. for the base weapon. Base contract award is for thirty (30) RDT&E weapons required for qualification activities.
 A separate TBD contract for the rifle scope will be pursued in FY20 and issued/fielded with the weapon.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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: 8194G01507 / COMPACT SEMI-AUTOMATIC SNIPER SYSTEM
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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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	5,365	671	-	-	-	-	-	-	-	-	6,036
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	46.236	9.860	0.999	-	0.999	-	-	-	-	-	57.095
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	46.236	9.860	0.999	-	0.999	-	-	-	-	-	57.095
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	46.236	9.860	0.999	-	0.999	-	-	-	-	-	57.095

(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>)	-	8.618	14.694	-	-	-	-	-	-	-	-	9.459

Description:

This program supports the Army Modernization priority (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). Brigade Combat Teams (BCT) require the capability to engage threat personnel with lethal and accurate fires at ranges exceeding the squad rifleman capability provided today. The Army is addressing this capability gap through the procurement of the Squad Designated Marksman Rifle (SDMR). The Squad Designated Marksman Rifle consists of a 7.62x51mm semi-automatic rifle with suppressor, optic, and additional authorized equipment. Additionally, the SDMR fulfills the procurement authority outlined in the National Defense Authorization Act for Fiscal Year 18, Pub. L. 115-91, Section 111.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	3,381	322	-	-	-	-	-	-
	Total Obligation Authority	32.348	7.417	0.999	-	0.999	-	-	-
ANG	Quantity	1,957	339	-	-	-	-	-	-
	Total Obligation Authority	13.699	2.373	-	-	-	-	-	-
AR	Quantity	27	10	-	-	-	-	-	-
	Total Obligation Authority	0.189	0.070	-	-	-	-	-	-
Total:	Quantity	5,365	671	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	46.236	9.860	0.999	-	0.999	-	-	-

Justification:

FY 2021 Base procurement dollars in the amount of \$.999 million supports the fielding of Squad Designated Marksman Rifle (SDMR) quantities purchased out of FY 2020 funding, scheduled to be fielded in FY2022 and FY2023. Funding also supports Integrated Logistics, Program Management and System Engineering. The SDMR provides Infantry, Scout and Engineer squads the capability to engage enemy personnel with accurate rifle fire. SDMR is a Commercial-Off-The-Shelf (COTS) weapon.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
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: 8194G01507 / COMPACT SEMI-AUTOMATIC SNIPER SYSTEM
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		

In accordance with Section 1815 of the FY2008 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.

AAO: 6,291

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	110,046	96,986	23,033	-	-	-	-	-	-	-	-	230,065
Gross/Weapon System Cost (<i>\$ in Millions</i>)	176.065	69.606	31.514	7.411	-	7.411	4.341	-	-	-	-	288.937
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	176.065	69.606	31.514	7.411	-	7.411	4.341	-	-	-	-	288.937
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	176.065	69.606	31.514	7.411	-	7.411	4.341	-	-	-	-	288.937

(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>)	1.600	0.718	1.368	-	-	-	-	-	-	-	-	1.256

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). This funding 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	54,061	1,846	-	-	-	-	-	-
	Total Obligation Authority	38.675	1.183	7.411	-	7.411	4.341	-	-
ANG	Quantity	15,067	9,572	-	-	-	-	-	-
	Total Obligation Authority	10.847	14.255	-	-	-	-	-	-
AR	Quantity	27,858	11,615	-	-	-	-	-	-
	Total Obligation Authority	20.084	16.076	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	96,986	23,033	-	-	-	-	-	-
	Total Obligation Authority	69.606	31.514	7.411	-	7.411	4.341	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	G13503 / M4A1 CARBINE	P-5a	A		110,046 / 176.065	96,986 / 69.606	23,033 / 31.514	- / 7.411	- / -	- / 7.411
P-40	Total Gross/Weapon System Cost				110,046 / 176.065	96,986 / 69.606	23,033 / 31.514	- / 7.411	- / -	- / 7.411

*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 2021 Base procurement dollars in the amount of \$7.411 million supports the fielding of M4A1 carbines. Funding also procures the 5.56mm Enhanced Performance Magazine (EPM), a component to support fielding the M4A1 with full complement of magazines. The M4A1 Carbine is produced with a heavier barrel to accommodate and sustain a higher rate of fire using the full automatic mode of fire and an ambidextrous selector. The fielding of the carbines is critical to meet the Army modernization priorities goals providing capability that allows the Soldier to engage targets in full automatic mode of fire at a higher sustained rate of fire as compared to the M4 Carbine. The 5.56 Enhanced Performance Magazine (EPM) decreases weapon wear, significantly increases reliability and durability and maintains terminal performance of the M4 and M16 family of weapons.

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.

M4A1's Army Acquisition Objective (AAO) of 845,563 will be met in FY 2020.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8201G13501 / Carbine	Item Number / Title [DODIC]: G13503 / M4A1 CARBINE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	110,046	96,986	23,033	-	-	-
Gross/Weapon System Cost (\$ in Millions)	176.065	69.606	31.514	7.411	-	7.411
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	176.065	69.606	31.514	7.411	-	7.411
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	176.065	69.606	31.514	7.411	-	7.411

(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)	1.600	0.718	1.368	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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																		
1. M4A1 Carbine ^(†)	0.726	211,492	153.574	0.622	96,986	60.343	0.641	38,683	24.779	-	-	-	-	-	-	-	-	-
2. Colt's Royalty payment	-	-	1.719	-	-	0.880	-	-	0.265	-	-	-	-	-	-	-	-	-
6. M4A1 Technical Manuals	-	-	0.238	-	-	0.147	-	-	0.150	-	-	0.200	-	-	-	-	-	0.200
Transportation Cost	-	-	0.287	-	-	0.170	-	-	0.300	-	-	0.500	-	-	-	-	-	0.500
<i>Subtotal: Recurring Cost</i>	-	-	<i>155.818</i>	-	-	<i>61.540</i>	-	-	<i>25.494</i>	-	-	<i>0.700</i>	-	-	-	-	-	<i>0.700</i>
<i>Subtotal: Flyaway Cost</i>	-	-	155.818	-	-	61.540	-	-	25.494	-	-	0.700	-	-	-	-	-	0.700
Package Fielding Cost																		
Recurring Cost																		
7. Total Package Fielding (TPF)	-	-	2.566	-	-	1.178	-	-	0.463	-	-	2.000	-	-	-	-	-	2.000
<i>Subtotal: Recurring Cost</i>	-	-	<i>2.566</i>	-	-	<i>1.178</i>	-	-	<i>0.463</i>	-	-	<i>2.000</i>	-	-	-	-	-	<i>2.000</i>
Non Recurring Cost																		
8. Integrated Logistics Support (ILS)	-	-	0.938	-	-	0.282	-	-	0.152	-	-	0.300	-	-	-	-	-	0.300
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.938</i>	-	-	<i>0.282</i>	-	-	<i>0.152</i>	-	-	<i>0.300</i>	-	-	-	-	-	<i>0.300</i>
<i>Subtotal: Package Fielding Cost</i>	-	-	3.504	-	-	1.460	-	-	0.615	-	-	2.300	-	-	-	-	-	2.300
Support - Program Management Cost																		

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Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10						P-1 Line Item Number / Title: 8201G13501 / Carbine						Item Number / Title [DODIC]: G13503 / M4A1 CARBINE					
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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Government Management	-	-	10.785	-	-	5.220	-	-	4.210	-	-	2.911	-	-	-	-	-	2.911
<i>Subtotal: Support - Program Management Cost</i>	-	-	10.785	-	-	5.220	-	-	4.210	-	-	2.911	-	-	-	-	-	2.911
Support - System Engineering Cost																		
System Engineering	-	-	5.915	-	-	1.404	-	-	1.195	-	-	1.500	-	-	-	-	-	1.500
<i>Subtotal: Support - System Engineering Cost</i>	-	-	5.915	-	-	1.404	-	-	1.195	-	-	1.500	-	-	-	-	-	1.500
Gross/Weapon System Cost	1.600	110,046	176.065	0.718	96,986	69.606	1.368	23,033	31.514	-	-	7.411	-	-	-	-	-	7.411

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	54,061	1,846	-	-	-
	Total Obligation Authority	38.675	1.183	7.411	-	7.411
ANG	Quantity	15,067	9,572	-	-	-
	Total Obligation Authority	10.847	14.255	-	-	-
AR	Quantity	27,858	11,615	-	-	-
	Total Obligation Authority	20.084	16.076	-	-	-
Total: Secondary Distribution	Quantity	96,986	23,033	-	-	-
	Total Obligation Authority	69.606	31.514	7.411	-	7.411

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

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8201G13501 / Carbine	Item Number / Title [DODIC]: G13503 / M4A1 CARBINE
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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
1. M4A1 Carbine		2019	FN Manufacturing / Columbia	C / FFP	ACC Picatinny, Picatinny, NJ	Feb 2019	May 2019	48,493	0.640	Y		
1. M4A1 Carbine		2019	Colt / West Hartford	C / FFP	ACC Picatinny, Picatinny, NJ	Feb 2019	Apr 2019	48,493	0.640	Y		
1. M4A1 Carbine		2020	FN Manufacturing / Columbia	C / FFP	ACC Picatinny, Picatinny, NJ	Dec 2019	May 2020	19,342	0.640	Y		
1. M4A1 Carbine		2020	Colt / West Hartford	C / FFP	ACC Picatinny, Picatinny, NJ	Dec 2019	Apr 2020	19,341	0.640	Y		

Remarks:
The FY2019 and 2020 projected quantities are being competed between vendors (FN & Colt) for each delivery order.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	3,983	-	3,983	11,370	29,888	46,129	54,056	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	35.822	-	35.822	98.620	216.372	336.047	383.868	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	-	35.822	-	35.822	98.620	216.372	336.047	383.868	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	35.822	-	35.822	98.620	216.372	336.047	383.868	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	-	8.994	8.674	7.239	7.285	7.101	Continuing	Continuing

Description:

This program is one of the top six 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). This program supports the Soldier Lethality Cross Functional Team (CFT).

Next Generation Squad Weapons (NGSW) is a family of products that includes a Rifle (NGSW-R) and an Automatic Rifle (NGSW-AR) that integrate an advanced fire control (NGSW-FC) and common 6.8mm ammunition. The NGSW-R and NGSW-AR are the planned replacements for select weapons system for individual soldiers, squads, and/or platoons, capable of defeating protected and unprotected threats. The NGSW-R and the NGSW-AR 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; improved controllability and mobility.

The Next Generation Squad Weapons - Fire Control (NGSW-FC) is an advanced individual fire control device that supports the NGSW-R, NGSW-AR, and other individual and squad weapon systems. The NGSW-FC 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 NGSW-FC 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	
Army	Quantity	-	-	3,983	-	3,983	11,370	25,628	33,322	44,895
	Total Obligation Authority	-	-	35.822	-	35.822	98.620	180.245	251.705	340.531
ANG	Quantity	-	-	-	-	-	-	3,978	12,402	9,161
	Total Obligation Authority	-	-	-	-	-	-	33.787	82.837	43.337
AR	Quantity	-	-	-	-	-	-	282	405	-
	Total Obligation Authority	-	-	-	-	-	-	2.340	1.505	-
Total:	Quantity	-	-	3,983	-	3,983	11,370	29,888	46,129	54,056

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	-	-	35.822	-	35.822	98.620	216.372	336.047	383.868

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	G14513 / Next Generation Squad Weapon - Fire Control	P-5a, P-21	B		- / -	- / -	- / -	3,983 / 35.822	- / -	3,983 / 35.822
P-40	Total Gross/Weapon System Cost				- / -	- / -	- / -	3,983 / 35.822	- / -	3,983 / 35.822

*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:
 FY2021 Base procurement dollars in the amount of \$35.822 million supports the procurement and fielding of 3,983 Next Generation Fire Control units. The Next Generation Fire Control (NGSW-FC) will have both close quarter and extended range capabilities and is intended for use with both the Next Generation Squad Weapon-Rifle (NGSW-R) and the Next Generation Squad Weapon-Automatic Rifle (NGSW-AR). The NGSW-FC 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.

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 Procurement Objective (APO):
 Next Generation Squad Weapons - Fire Control (NGSW-FC): 121,773
 Next Generation Squad Weapons - Rifle (NGSW-R): 108,568
 Next Generation Squad Weapons - Automatic Rifle (NGSW-AR): 13,205

Next Generation Squad Weapon is a new start in FY2021.

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Exhibit P-5, Cost Analysis: PB 2021 Army													Date: February 2020					
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) : B									MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total				
Procurement Quantity (<i>Units in Each</i>)				-		-		-		3,983		-		3,983				
Gross/Weapon System Cost (<i>\$ in Millions</i>)				-		-		-		35.822		-		35.822				
Less PY Advance Procurement (<i>\$ in Millions</i>)				-		-		-		-		-		-				
Net Procurement (P-1) (<i>\$ in Millions</i>)				-		-		-		35.822		-		35.822				
Plus CY Advance Procurement (<i>\$ in Millions</i>)				-		-		-		-		-		-				
Total Obligation Authority (<i>\$ in Millions</i>)				-		-		-		35.822		-		35.822				
<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>)				-		-		-		8.994		-		8.994				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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																		
Next Generation Squad Weapons Fire Control ^(f)	-	-	-	-	-	-	-	-	-	7.750	3,983	30.868	-	-	-	7.750	3,983	30.868
Engineering Data	-	-	-	-	-	-	-	-	-	-	-	0.453	-	-	-	-	-	0.453
Technical Publications	-	-	-	-	-	-	-	-	-	-	-	0.935	-	-	-	-	-	0.935
Engineering Change Proposals	-	-	-	-	-	-	-	-	-	-	-	0.125	-	-	-	-	-	0.125
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	32.381	-	-	-	-	-	32.381
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	-	-	-	32.381	-	-	-	-	-	32.381
Package Fielding Cost																		
Recurring Cost																		
Total Package Fielding	-	-	-	-	-	-	-	-	-	-	-	0.717	-	-	-	-	-	0.717
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.717	-	-	-	-	-	0.717
<i>Subtotal: Package Fielding Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.717	-	-	-	-	-	0.717
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	-	-	-	-	-	-	0.582	-	-	-	-	-	0.582
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.582	-	-	-	-	-	0.582
Support - System Engineering Cost																		

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
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) : B		MDAP/MAIS Code:

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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 Engineering	-	-	-	-	-	-	-	-	-	-	-	1.773	-	-	-	-	-	1.773
<i>Subtotal: Support - System Engineering Cost</i>	-	-	-	-	-	-	-	-	-	-	-	1.773	-	-	-	-	-	1.773
Support - System Test and Evaluation Cost																		
Test and Evaluation Support	-	-	-	-	-	-	-	-	-	-	-	0.369	-	-	-	-	-	0.369
<i>Subtotal: Support - System Test and Evaluation Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.369	-	-	-	-	-	0.369
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	8.994	3,983	35.822	-	-	-	8.994	3,983	35.822

Remarks:
N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	3,983	-	3,983
	Total Obligation Authority	-	-	35.822	-	35.822
Total: Secondary Distribution	Quantity	-	-	3,983	-	3,983
	Total Obligation Authority	-	-	35.822	-	35.822

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

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
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 (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Next Generation Squad Weapons Fire Control ^(†)		2021	TBD Contractor / TBD	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Jul 2021	Apr 2022	3,983	7.750	N		Mar 2021

^(†) indicates the presence of a P-21

Remarks:
N/A

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Exhibit P-21, Production Schedule: PB 2021 Army												Date: February 2020											
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 Each)</i>						Fiscal Year 2021												Fiscal Year 2022												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P

Next Generation Squad Weapons Fire Control																													
1	2021	ARMY		3,983	0	3,983																							

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Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
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 Each)</i>						Fiscal Year 2023											Fiscal Year 2024											BALANCE		
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
Next Generation Squad Weapons Fire Control																												0		
	1	2021	ARMY	3,983	1,875	2,108	400	400	400	400	400	108																		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 2021 Army		Date: February 2020
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 2021	1-8-5 For 2021	MAX For 2021	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	TBD Contractor - TBD	100	400	1,600	6	9	9	18	1	3	7	10

Remarks:
N/A

"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 2021 Army **Date:** February 2020

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: 8310G04700 / Common Remotely Operated Weapons Station
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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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,276.979	21.604	28.189	24.534	-	24.534	-	-	-	-	-	2,351.306
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,276.979	21.604	28.189	24.534	-	24.534	-	-	-	-	-	2,351.306
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,276.979	21.604	28.189	24.534	-	24.534	-	-	-	-	-	2,351.306

(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). The M153 Common Remotely Operated Weapon Station (CROWS) is an integrated system that provides the capability to remotely operate all standard U.S. Army machine guns (i.e., M2 Heavy Barrel Machine Guns, MK-19 Grenade Machine Guns, M240B/L Medium Machine Guns and M249 Squad Automatic Weapons) and increase lethality solutions (to include Javelin) on a variety of vehicles from an Up-Armored High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) to a M1A2 Main Battle Tank. The CROWS system includes a three axis stabilized mount, a sensor suite with fire control software, and a vehicle integration kit. CROWS permits the gunner to manipulate the sight and weapon from under armor using a hand controller and a flat panel display. Missions can be carried out under conditions of varying visibility via the day camera or thermal camera. The laser range finder and three-axis stabilization allows for accurate fire on the move.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	21.604	28.189	24.534	-	24.534	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	21.604	28.189	24.534	-	24.534	-	-	-

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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:** 8310G04700 / Common Remotely Operated Weapons Station

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	G04700 / Common Remotely Operated Weapons Station	P-5a	A		- / 2,276.979	- / 21.604	- / 28.189	- / 24.534	- / -	- / 24.534
P-40	Total Gross/Weapon System Cost				- / 2,276.979	- / 21.604	- / 28.189	- / 24.534	- / -	- / 24.534

*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 2021 Base procurement dollars in the amount of \$24.534 million supports the Active Army by converting CROWS systems to the current configuration for fielding, Javelin capability, and increased lethality. Funds also procure platform integration kits, appended trainers, diagnostic kits, and other ancillary equipment to support ongoing fielding to Active Army units.

CROWS permits the gunner to manipulate the sight and weapon from under armor using a hand controller and a flat panel display. Missions can be carried out under conditions of varying visibility via the day camera or thermal camera. The laser range finder and three-axis stabilization allows for accurate fire on the move.

The legacy Common Remotely Operated Weapon Station (CROWS) used a single-step acquisition approach in its strategy. The CROWS achieved Type Classification Standard in 3QFY2011, Full Materiel Release in 3QFY2012 and Full Rate Production in 4QFY2012, in accordance with the Capability Production Document (CPD) Increment I, as clarified in June 2009. Capability Development Document Increment II was approved in October 2015 addressing requirements for the next generation of CROWS.

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 2021 Army						Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10			P-1 Line Item Number / Title: 8310G04700 / Common Remotely Operated Weapons Station			Item Number / Title [DODIC]: G04700 / Common Remotely Operated Weapons Station		
ID Code (A=Service Ready, B=Not Service Ready) : A						MDAP/MAIS Code:		
Resource Summary			Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)			-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)			2,276.979	21.604	28.189	24.534	-	24.534
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			2,276.979	21.604	28.189	24.534	-	24.534
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			2,276.979	21.604	28.189	24.534	-	24.534
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)			-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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																		
CROWS system	-	-	1,731.151	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CROWS Post-Production conversion ^(†)	33.349	545	18.175	17.837	43	0.767	-	-	-	27.000	12	0.324	-	-	-	27.000	12	0.324
Platform Integration Kits ^(†)	54.926	1,030	56.574	3.566	205	0.731	16.338	225	3.676	-	-	-	-	-	-	-	-	-
Appended Trainers	15.726	940	14.782	12.766	47	0.600	11.660	97	1.131	12.750	20	0.255	-	-	-	12.750	20	0.255
Diagnostic Kits	74.344	160	11.895	48.260	123	5.936	50.671	73	3.699	42.400	10	0.424	-	-	-	42.400	10	0.424
Engineering Support	-	-	114.449	-	-	2.300	-	-	1.916	-	-	1.274	-	-	-	-	-	1.274
Program Management Support	-	-	28.524	-	-	1.599	-	-	0.075	-	-	1.954	-	-	-	-	-	1.954
Integrated Logistics Support	-	-	48.401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Package Fielding	-	-	77.840	-	-	3.469	-	-	6.400	-	-	6.017	-	-	-	-	-	6.017
Contractor Field Service Representatives	-	-	24.896	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
First Destination Transportation	-	-	4.079	-	-	0.620	-	-	0.150	-	-	0.226	-	-	-	-	-	0.226
Spares/Repair Parts	-	-	103.717	-	-	3.262	-	-	5.462	-	-	0.300	-	-	-	-	-	0.300

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10	P-1 Line Item Number / Title: 8310G04700 / Common Remotely Operated Weapons Station	Item Number / Title [DODIC]: G04700 / Common Remotely Operated Weapons Station
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 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 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)
New Equipment Training	-	-	42.496	-	-	0.040	-	-	2.280	-	-	0.010	-	-	-	-	-	0.010
CROWS Technology Refresh	-	-	-	-	-	1.830	-	-	3.400	-	-	2.000	-	-	-	-	-	2.000
ATC Sodtware Test	-	-	-	-	-	0.450	-	-	-	-	-	0.350	-	-	-	-	-	0.350
<i>Subtotal: Recurring Cost</i>	-	-	<i>2,276.979</i>	-	-	<i>21.604</i>	-	-	<i>28.189</i>	-	-	<i>13.134</i>	-	-	-	-	-	<i>13.134</i>
Non Recurring Cost																		
First Article Test (FAT)	-	-	-	-	-	-	-	-	-	-	-	11.400	-	-	-	-	-	11.400
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<i>11.400</i>	-	-	-	-	-	<i>11.400</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>2,276.979</i>	-	-	<i>21.604</i>	-	-	<i>28.189</i>	-	-	<i>24.534</i>	-	-	-	-	-	<i>24.534</i>
Gross/Weapon System Cost	-	-	2,276.979	-	-	21.604	-	-	28.189	-	-	24.534	-	-	-	-	-	24.534

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	21.604	28.189	24.534	-	24.534
Total:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	21.604	28.189	24.534	-	24.534

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10			P-1 Line Item Number / Title: 8310G04700 / Common Remotely Operated Weapons Station					Item Number / Title [DODIC]: G04700 / Common Remotely Operated Weapons Station				
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
CROWS Post-Production conversion		2021	TBD / TBD	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Mar 2021	Mar 2022	12	27.000	N		
Platform Integration Kits		2019	IBES TEK / Butler, PA	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Sep 2019	Mar 2020	205	3.566	Y		
Platform Integration Kits		2020	TBD / TBD	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Dec 2019	Jun 2020	225	16.338	Y		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	39,449	193,980	-	-	-	-	-	-	-	-	-	233,429
Gross/Weapon System Cost (<i>\$ in Millions</i>)	10.565	48.251	6.422	4.662	-	4.662	5.126	-	-	-	-	75.026
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	10.565	48.251	6.422	4.662	-	4.662	5.126	-	-	-	-	75.026
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	10.565	48.251	6.422	4.662	-	4.662	5.126	-	-	-	-	75.026

(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>)	0.268	0.249	-	-	-	-	-	-	-	-	-	0.321

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). Currently, the M9 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 MHS 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 MHS addresses M9 and M11 shortcomings with improved lethality, target acquisition, ergonomics, reliability, durability, and maintainability. The MHS is ambidextrous capable and accommodates 5th-95th percentile users via modular grips and access to all controls with one hand.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	128,261	-	-	-	-	-	-	-
	Total Obligation Authority	30.873	6.422	4.662	-	4.662	5.126	-	-
ANG	Quantity	46,663	-	-	-	-	-	-	-
	Total Obligation Authority	12.296	-	-	-	-	-	-	-
AR	Quantity	19,056	-	-	-	-	-	-	-
	Total Obligation Authority	5.082	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	193,980	-	-	-	-	-	-	-
	Total Obligation Authority	48.251	6.422	4.662	-	4.662	5.126	-	-

Justification:

FY 2021 Base procurement dollars in the amount of \$4.662 million provides for support and the fielding of the Modular Handgun Weapon Systems (MHS) consisting of the Full, Compact and GO variants, MHS stock to be used for replacement of coded out weapons rather than refurbishment/overhaul, magazines, pouches, blank and marking round conversion kits, suppressor kits and other accessories to include, but

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
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
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>not limited to white lights and aiming lasers. The MHS addresses M9 shortcomings with improved lethality, target acquisition, ergonomics, reliability, durability, and maintainability. The MHS is ambidextrous capable and accommodates 5th-95th percentile users via modular grips and access to all controls with one hand. The MHS is a Commercial Off the Shelf/Non-Developmental Item (COTS/NDI).</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>Handgun's Army Acquisition Objective (AAO) of 233,429 was met in FY2019.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	44.754	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-	-	82.654
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	44.754	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-	-	82.654
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	44.754	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-	-	82.654

(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>)	141.180	14.903	-	5.989	-	5.989	6.510	7.092	-	-	-	15.525

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 MK-19 Mod 3 is a self-powered, air-cooled, 40mm automatic grenade machine gun capable of 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. Since the initial fielding of the MK-19, various system enhancements have been identified to further improve the system by increasing operational capabilities and improving reliability, readiness, maintainability, and safety. The MK-19 is fielded with the MK93 mount for vehicle utilization and the M3 or 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 (MOD#4). The improved sight decreases the MK19 logistic burden by reducing the number of parts as well as increasing Soldier lethality thru updated ballistic solutions. The Mounted Machine Gun Optic (MMO) (MOD#5) will provide increased accuracy by equipping the MK19 with a combined reflex and magnified optic to mounted CS/CSS troops, who currently have no optic. The MMO will significantly improve target identification, target acquisition and effective engagement time at extended ranges while retaining the capability of short range, transition fire. MK93 Improvement Kits (MOD #6) will enhance hit performance and improve Soldier interface with optical sighting systems during on the move engagement by dampening mount movement. The Programmer Unit (PU) (MOD#7) provides the means for fuze setting for the 40mm High Velocity Air Burst (HE-AB) capability for the MK19 currently under development.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	GB3000 / MK-19 Grenade Machine Gun MODS (Increase Performance)		B		- / 44.754	- / 1.684	- / 3.737	- / 6.444	- / -	- / 6.444
P-40	Total Gross/Weapon System Cost				- / 44.754	- / 1.684	- / 3.737	- / 6.444	- / -	- / 6.444

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	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	GB3000 / MK-19 Grenade Machine Gun MODS (Increase Performance)		B		- / 11.666	- / 14.369	- / -	- / -	- / -	- / 82.654
P-40	Total Gross/Weapon System Cost				- / 11.666	- / 14.369	- / -	- / -	- / -	- / 82.654

*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 2021 Base procurement dollars in the amount of \$6.444 million supports the Active Army by procuring 995 MK-19 Improved Sights and 1,076 Mounted Machine Gun Optics (MMO). The MK-19 Improved Sights provides the Soldier with increased capability thru updated ballistic solutions and reduces the Total Cost of Ownership by reducing the number of components included in the sight. The Mounted Machine Gun Optic (MMO) will provide Soldiers increased accuracy by equipping the MK19 with a combined reflex and magnified optic. The MMO will significantly improve target identification, target acquisition and effective engagement time at extended ranges while retaining the capability of short range, transition fire.

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 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20	P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS	Modification Number / Title: GB3000 / MK-19 Grenade Machine Gun MODS

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	44.754	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-	-	82.654
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	44.754	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-	-	82.654
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	44.754	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-	-	82.654

(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>)	141.180	14.903	-	5.989	-	5.989	6.510	7.092	-	-	-	15.525

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 MK-19 Mod 3 is a self-powered, air-cooled, 40mm automatic grenade machine gun capable of 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. Since the initial fielding of the MK-19, various system enhancements have been identified to further improve the system by increasing operational capabilities and improving reliability, readiness, maintainability, and safety. The MK-19 is fielded with the MK93 mount for vehicle utilization and the M3 or 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 (MOD#4). The improved sight decreases the MK19 logistic burden by reducing the number of parts as well as increasing Soldier lethality thru updated ballistic solutions. The Mounted Machine Gun Optic (MMO) (MOD#5) will provide increased accuracy by equipping the MK19 with a combined reflex and magnified optic to mounted CS/CSS troops, who currently have no optic. The MMO will significantly improve target identification, target acquisition and effective engagement time at extended ranges while retaining the capability of short range, transition fire. MK93 Improvement Kits (MOD #6) will enhance hit performance and improve Soldier interface with optical sighting systems during on the move engagement by dampening mount movement. The Programmer Unit (PU) (MOD#7) provides the means for fuze setting for the 40mm High Velocity Air Burst (HE-AB) capability for the MK19 currently under development

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20					P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS					Modification Number / Title: GB3000 / MK-19 Grenade Machine Gun MODS				
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:							
Models of Systems Affected: MK-19 Grenade Machine Gun & M2 50 Cal Machine Gun				Modification Type: Increase Performance				Related RDT&E PEs:						
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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 7: Tactical Engagement Simulator (TES)														
B Kits														
Recurring														
TES Kits	1,568 / 29.086	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,568 / 29.086		
Engineering Support	- / 1.925	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.925		
Integrated Logistical Support	- / 0.850	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.850		
Fielding	- / 0.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.750		
Subtotal: Recurring	1,568 / 32.611	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,568 / 32.611		
Subtotal: Tactical Engagement Simulator (TES)	1,568 / 32.611	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,568 / 32.611		
Modification Item 2 of 7: Tripods														
B Kits														
Recurring														
M3/M205 Tripod	666 / 2.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	666 / 2.000		
Engineering Support	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500		
Integrated Logistical Support	- / 0.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.400		
Fielding	- / 0.113	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.113		
Subtotal: Recurring	666 / 3.013	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	666 / 3.013		
Subtotal: Tripods	666 / 3.013	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	666 / 3.013		
Modification Item 3 of 7: Mounts														
B Kits														
Recurring														
MK93 Mount	160 / 0.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	160 / 0.400		
Engineering, ILS, TPF Support	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.200		
Subtotal: Recurring	160 / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	160 / 0.600		
Subtotal: Mounts	160 / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	160 / 0.600		
Modification Item 4 of 7: MK19 GMG MOD 5 Kits - Improved Rear Sights														
B Kits														

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20					P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS					Modification Number / Title: GB3000 / MK-19 Grenade Machine Gun MODS			
ID Code (A=Service Ready, B=Not Service Ready) : B							MDAP/MAIS Code:						
Models of Systems Affected: MK-19 Grenade Machine Gun & M2 50 Cal Machine Gun				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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													
MK19 GMG MOD 5 Kits -Improved Rear Sight	3,904 / 3.383	880 / 0.401	500 / 0.200	995 / 0.396	- / -	995 / 0.396	930 / 0.375	1,090 / 0.500	- / -	- / -	- / -	8,299 / 5.255	
Engineering Support	- / 2.866	- / 0.150	- / 0.200	- / 0.180	- / -	- / 0.180	- / 0.139	- / 0.225	- / -	- / -	- / -	- / 3.760	
Integrated Logistical Support	- / 0.150	- / 0.075	- / 0.100	- / 0.075	- / -	- / 0.075	- / 0.075	- / 0.100	- / -	- / -	- / -	- / 0.575	
First Destination Transportation	- / 0.020	- / 0.010	- / 0.020	- / 0.020	- / -	- / 0.020	- / 0.020	- / 0.020	- / -	- / -	- / -	- / 0.110	
Testing	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.200	
Testing (First Article)	- / 0.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.800	
Engineering Study	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500	
Fielding	- / 0.050	- / 0.150	- / -	- / 0.235	- / -	- / 0.235	- / 0.225	- / 0.300	- / -	- / -	- / -	- / 0.960	
Program Management Support	- / 0.561	- / 0.053	- / -	- / 0.100	- / -	- / 0.100	- / 0.095	- / 0.119	- / -	- / -	- / -	- / 0.928	
Subtotal: Recurring	3,904 / 8.530	880 / 0.839	500 / 0.520	995 / 1.006	- / -	995 / 1.006	930 / 0.929	1,090 / 1.264	- / -	- / -	- / -	8,299 / 13.088	
Subtotal: MK19 GMG MOD 5 Kits -Improved Rear Sights	3,904 / 8.530	880 / 0.839	500 / 0.520	995 / 1.006	- / -	995 / 1.006	930 / 0.929	1,090 / 1.264	- / -	- / -	- / -	8,299 / 13.088	
Modification Item 5 of 7: Mounted Machine Gun Optic (MMO)													
B Kits													
Recurring													
Mounted Machine Gun Optic (MMO)	- / -	60 / 0.175	1,020 / 2.232	1,076 / 2.537	- / -	1,076 / 2.537	1,792 / 5.530	2,026 / 9.023	- / -	- / -	- / -	5,974 / 19.497	
Engineering Support	- / -	- / 0.105	- / 0.140	- / 0.493	- / -	- / 0.493	- / 0.788	- / 0.251	- / -	- / -	- / -	- / 1.777	
Integrated Logistical Support	- / -	- / 0.075	- / 0.125	- / 0.175	- / -	- / 0.175	- / 0.200	- / 0.125	- / -	- / -	- / -	- / 0.700	
First Destination Transportation	- / -	- / 0.020	- / 0.020	- / 0.020	- / -	- / 0.020	- / 0.020	- / 0.020	- / -	- / -	- / -	- / 0.100	
Testing (First Article)	- / -	- / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.100	
Engineering Study	- / -	- / 0.070	- / -	- / 0.707	- / -	- / 0.707	- / 0.800	- / -	- / -	- / -	- / -	- / 1.577	
Fielding	- / -	- / 0.150	- / -	- / 0.400	- / -	- / 0.400	- / 0.400	- / 0.400	- / -	- / -	- / -	- / 1.350	
Program Support	- / -	- / 0.150	- / 0.050	- / 0.656	- / -	- / 0.656	- / 1.500	- / 1.000	- / -	- / -	- / -	- / 3.356	
New Equipment Training	- / -	- / -	- / -	- / 0.450	- / -	- / 0.450	- / 0.450	- / 0.350	- / -	- / -	- / -	- / 1.250	
Subtotal: Recurring	- / -	60 / 0.845	1,020 / 2.567	1,076 / 5.438	- / -	1,076 / 5.438	1,792 / 9.688	2,026 / 11.169	- / -	- / -	- / -	5,974 / 29.707	
Subtotal: Mounted Machine Gun Optic (MMO)	- / -	60 / 0.845	1,020 / 2.567	1,076 / 5.438	- / -	1,076 / 5.438	1,792 / 9.688	2,026 / 11.169	- / -	- / -	- / -	5,974 / 29.707	
Modification Item 6 of 7: MK93 Improvement Kits													
B Kits													
Recurring													

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Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20	P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS	Modification Number / Title: GB3000 / MK-19 Grenade Machine Gun MODS

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
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Models of Systems Affected: MK-19 Grenade Machine Gun & M2 50 Cal Machine Gun	Modification Type: Increase Performance	Related RDT&E PEs:
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Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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)
MK93 Improvement Kits	- / -	- / -	75 / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	75 / 0.300
Engineering Support	- / -	- / -	- / 0.350	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.350
<i>Subtotal: Recurring</i>	- / -	- / -	75 / 0.650	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	75 / 0.650
<i>Subtotal: MK93 Improvement Kits</i>	- / -	- / -	75 / 0.650	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	75 / 0.650
Modification Item 7 of 7: HE-AB Programmer Unit												
B Kits												
Recurring												
HARDWARE	- / -	- / -	- / -	- / -	- / -	- / -	530 / 1.049	1,000 / 1.936	- / -	- / -	- / -	1,530 / 2.985
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	530 / 1.049	1,000 / 1.936	- / -	- / -	- / -	1,530 / 2.985
<i>Subtotal: HE-AB Programmer Unit</i>	- / -	- / -	- / -	- / -	- / -	- / -	530 / 1.049	1,000 / 1.936	- / -	- / -	- / -	1,530 / 2.985
<i>Subtotal: Procurement, All Modification Items</i>	6,298 / 44.754	940 / 1.684	1,595 / 3.737	2,071 / 6.444	- / -	2,071 / 6.444	3,252 / 11.666	4,116 / 14.369	- / -	- / -	- / -	18,272 / 82.654
Installation												
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	44.754	1.684	3.737	6.444	-	6.444	11.666	14.369	-	-	-	82.654

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Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS			Modification Number / Title: GB3000 / MK-19 Grenade Machine Gun MODS	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 1 of 7: Tactical Engagement Simulator (TES)							
Manufacturer Information							
Manufacturer Name: NA				Manufacturer Location: NA			
Administrative Leadtime (in Months): 5				Production Leadtime (in Months): 8			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Installed by Troops					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS			Modification Number / Title: GB3000 / MK-19 Grenade Machine Gun MODS	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 2 of 7: Tripods							
Manufacturer Information							
Manufacturer Name: NA				Manufacturer Location: NA			
Administrative Leadtime (<i>in Months</i>): 22				Production Leadtime (<i>in Months</i>): 6			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Installed by Troops					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS			Modification Number / Title: GB3000 / MK-19 Grenade Machine Gun MODS	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 3 of 7: Mounts							
Manufacturer Information							
Manufacturer Name: NA				Manufacturer Location: NA			
Administrative Leadtime (in Months): 5				Production Leadtime (in Months): 9			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Installed by Troops					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS			Modification Number / Title: GB3000 / MK-19 Grenade Machine Gun MODS	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 4 of 7: MK19 GMG MOD 5 Kits -Improved Rear Sights							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (<i>in Months</i>): 9				Production Leadtime (<i>in Months</i>): 10			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023		
Delivery Dates	Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024		
Installation Information							
Method of Implementation (Organic): Installed by Troops					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS			Modification Number / Title: GB3000 / MK-19 Grenade Machine Gun MODS	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 5 of 7: Mounted Machine Gun Optic (MMO)							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (<i>in Months</i>): 1				Production Leadtime (<i>in Months</i>): 4			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023		
Delivery Dates	Sep 2019	Sep 2020	Sep 2021	Sep 2022	Sep 2023		
Installation Information							
Method of Implementation (Organic): Installed by Troops					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS			Modification Number / Title: GB3000 / MK-19 Grenade Machine Gun MODS	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 6 of 7: MK93 Improvement Kits							
Manufacturer Information							
Manufacturer Name: U.S Army ARDEC				Manufacturer Location: Picatinny, NJ			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 10			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Mar 2020					
Delivery Dates		Jan 2021					
Installation Information							
Method of Implementation (Organic): Installed by Troops					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3000GB3000 / MK-19 Grenade Machine Gun MODS			Modification Number / Title: GB3000 / MK-19 Grenade Machine Gun MODS	
ID Code (A=Service Ready, B=Not Service Ready) : B					MDAP/MAIS Code:		
Modification Item 7 of 7: HE-AB Programmer Unit							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 5				Production Leadtime (in Months): 6			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates				Mar 2022	Mar 2023		
Delivery Dates				Sep 2022	Sep 2023		
Installation Information							
Method of Implementation (Organic): TBD					Installation Quantity: 0		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	147.917	3.086	2.367	10.983	-	10.983	-	-	-	-	-	164.353
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	147.917	3.086	2.367	10.983	-	10.983	-	-	-	-	-	164.353
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	147.917	3.086	2.367	10.983	-	10.983	-	-	-	-	-	164.353

(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 Lightweight 155mm Howitzer (LW155), also known as the M777A2, is a Joint Service program between the US Marine Corps (USMC) and US Army which provides direct, reinforcing, general support fires to maneuver forces and direct support artillery. The LW155 was first introduced into the USMC in April 2005 and the Marines have fielded the howitzer to all active units. The Army fielded the howitzer to its Stryker Brigade Combat teams (SBCT), Fires Brigades and National Guard. Fielding of the Infantry Brigade Combat Teams (IBCT) was completed in FY2018. The LW155 saw extensive action in Afghanistan, receiving high marks for its performance. It replaces all howitzers in all USMC missions and replaces the M198 howitzer as the general support artillery for light forces in the Army. The LW155 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 7000 pounds over the M198 system. Compared to the M198, the LW155 emplaces 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 US Army working together to develop, produce, field, and sustain the howitzer. The howitzer will be going through obsolescent replacement of electronic components in its digital fire control system, since it has been in the field for more than ten years.

This budget line item provides funding for various hardware and software modification and sustainment efforts such as Digital Fire Control System (DFCS) component refresh, integration of upgraded components, and interoperability upgrades including M-Code satellite signal in support of the M777A2 program.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	3.086	2.367	10.983	-	10.983	-	-	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	3.086	2.367	10.983	-	10.983	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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		- / 147.917	- / 3.086	- / 2.367	- / 10.983	- / -	- / 10.983
P-40	Total Gross/Weapon System Cost				- / 147.917	- / 3.086	- / 2.367	- / 10.983	- / -	- / 10.983

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	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		- / -	- / -	- / -	- / -	- / -	- / 164.353
P-40	Total Gross/Weapon System Cost				- / -	- / -	- / -	- / -	- / -	- / 164.353

*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 2021 Base procurement dollars in the amount of \$10.983 million provides for the Modifications of M777A2 Towed Howitzer and Digital Fire Control System to address obsolescence and interoperability challenges as well as installation of modification kits. Modifications include procurement of new mission computers and software operating system updates to ensure continued system supportability. Funding also provides for continuing retrofit of previously procured hardware items such as, Improved Power Conditioning Control Module (I-PCCM), Hydraulic Power Assist Kit (HyPAK), Mission Computer (MSC-R), and Chief of Section Display (CSD-R).

 Net funding increase of \$8.616 million from FY 2020 to FY2021 reflects the continued modernization efforts to keep the M777A2 supportable and secure and acceleration of retrofit activities.

 "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 2021 Army		Date: February 2020
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:**

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	147.917	3.086	2.367	10.983	-	10.983	-	-	-	-	-	164.353
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	147.917	3.086	2.367	10.983	-	10.983	-	-	-	-	-	164.353
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	147.917	3.086	2.367	10.983	-	10.983	-	-	-	-	-	164.353

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Mod 1- (Retrofit and Composite Fielding Activities) Funding will support field retrofits of previously contracted Engineering Change Proposals for the Improved Power Conditioning Control Module (I-PCCM), Hydraulic Power Assist Kit (HyPAK), Muzzle Velocity Sensor System (MVSS), Mission Computer (MSC-R), and Chief of Section Display (CSD-R)

Mod 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. These components are required to support security and obsolescence issues.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.086	2.367	10.983	-	10.983	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.086	2.367	10.983	-	10.983	-	-	-	-

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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 4: Retrofit and Composite Fielding Activities													
A Kits													
Recurring													
Retrofit and Composite Fielding Activiti	- / 123.441	- / 11.822	- / 10.881	- / 12.300	- / -	- / 12.300	- / -	- / -	- / -	- / -	- / -	- / 28.444	
Subtotal: Recurring	- / 23.441	- / 11.822	- / 10.881	- / 12.300	- / -	- / 12.300	- / -	- / -	- / -	- / -	- / -	- / 28.444	
Subtotal: Retrofit and Composite Fielding Activities	- / 23.441	- / 11.822	- / 10.881	- / 12.300	- / -	- / 12.300	- / -	- / -	- / -	- / -	- / -	- / 28.444	
Modification Item 2 of 4: Digital Fire Control System Modifications													
A Kits													
Non-Recurring													
Software Integration	- / 2.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.700	
Engineering Change Proposal	- / 3.582	- / -	- / 10.630	- / 8.683	- / -	- / 8.683	- / -	- / -	- / -	- / -	- / -	- / 12.895	
Electronic Communication Components	490 / 9.287	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	490 / 9.287	
Subtotal: Non-Recurring	490 / 15.569	- / -	- / 10.630	- / 8.683	- / -	- / 8.683	- / -	- / -	- / -	- / -	- / -	490 / 24.882	
Subtotal: Digital Fire Control System Modifications	490 / 15.569	- / -	- / 10.630	- / 8.683	- / -	- / 8.683	- / -	- / -	- / -	- / -	- / -	490 / 24.882	
Modification Item 3 of 4: Program Management													
A Kits													
Recurring													
Program Management	- / 1.798	- / 1.264	- / 0.856	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.918	
Subtotal: Recurring	- / 1.798	- / 1.264	- / 0.856	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.918	
Subtotal: Program Management	- / 1.798	- / 1.264	- / 0.856	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.918	
Modification Item 4 of 4: Previous Modifications													
A Kits													
Non-Recurring													
Previous Modifications	- / 107.109	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 107.109	
Subtotal: Non-Recurring	- / 107.109	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 107.109	
Subtotal: Previous Modifications	- / 107.109	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 107.109	
Subtotal: Procurement, All Modification Items	490 / 147.917	- / 3.086	- / 2.367	- / 10.983	- / -	- / 10.983	- / -	- / -	- / -	- / -	- / -	490 / 164.353	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020		
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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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												
Total Cost (Procurement + Support + Installation)	147.917	3.086	2.367	10.983	-	10.983	-	-	-	-	-	164.353

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Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
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 4: 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 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Jan 2019	Jan 2020	Jan 2021				
Delivery Dates	Mar 2019	Mar 2020	Mar 2021				
Installation Information							
Method of Implementation (Organic): Contract Options					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
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 4: Digital Fire Control System Modifications							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 2			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Jan 2020	Jan 2021				
Delivery Dates		Mar 2020	Mar 2021				
Installation Information							
Method of Implementation (Organic): Contracts					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
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 4: Program Management							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 1				Production Leadtime (in Months): 1			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Oct 2018	Oct 2019					
Delivery Dates	Nov 2018	Nov 2019					
Installation Information							
Method of Implementation (Organic): MIPR to PM TAS and Contract Options						Installation Quantity: 0	

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Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
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 4 of 4: Previous Modifications							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
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 2021 Army **Date:** February 2020

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: 3010GB3007 / M4 Carbine 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	913.674	38.075	17.595	4.824	-	4.824	4.899	4.404	4.405	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	913.674	38.075	17.595	4.824	-	4.824	4.899	4.404	4.405	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	913.674	38.075	17.595	4.824	-	4.824	4.899	4.404	4.405	-	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>)	4.816	0.397	-	-	-	-	-	-	-	-	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 M4 Carbine Modification Program provides combat optics, a Close Quarters Battle Kit (CQBK), an Enhanced Performance Magazine (EPM), 5.56mm suppressor, color modifications, and M4 to M4A1 carbine upgrade kits. The Improved Weapons Cleaning Kit (IWCK) contains necessary items to conduct a thorough and efficient cleaning of both weapon and optic, and has been reconfigured into: Individual Kit and Team Kit. The 5.56 Enhanced Performance Magazine (EPM) decreases weapon wear, significantly increases reliability, durability, readiness and maintains terminal performance of the M4 and M16 family of weapons. The 5.56mm suppressor and color modifications reduce the sound and visual signatures of the M4/M4A1 carbine as well as increase the difficulty of enemy forces to easily distinguish the Close Combat Force (CFT) and other units. The M4 Product Improvement Program converts all fielded M4 Carbines to M4A1 Carbine configuration to include the M4A1 heavy barrel assembly and full auto trigger mechanism and adding new ambidextrous fire control selector assembly.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	22.147	6.015	4.824	-	4.824	4.899	4.404	4.405
ANG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	14.336	10.689	-	-	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.592	0.891	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	38.075	17.595	4.824	-	4.824	4.899	4.404	4.405

Justification:

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
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: 3010GB3007 / M4 Carbine Mods
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 2021 Base procurement dollars in the amount of \$4.824 million supports the purchases of the enhanced performance magazine, the 5.56mm suppressor, components with color modifications, and the conversion of M4 to M4A1 Carbine. The M4 Carbine upgrade converts the M4 to the M4A1 configuration to include the M4A1 heavy barrel assembly and full auto trigger mechanism and adding new ambidextrous fire control selector assembly. FY 2021 funding covers labor for the M4 PIP system support modification work order team (MWO) to include the M4 PIP Staging Facility located in Anniston, Alabama, the M4 PIP Installation teams, and Tank Automotive Command (TACOM) MWO Support Team. The 5.56mm suppressor and color modifications reduce the sound and visual signatures of the M4/M4A1 carbine as well as increase the difficulty of enemy forces to easily distinguish the Close Combat Force (CFT) and other units.</p> <p>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.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	385.177	19.098	6.090	-	-	-	-	-	-	-	-	410.365
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	385.177	19.098	6.090	-	-	-	-	-	-	-	-	410.365
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	385.177	19.098	6.090	-	-	-	-	-	-	-	-	410.365

(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>)	19.762	7.379	-	-	-	-	-	-	-	-	-	18.586

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 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 the barrel without the need to reset the headspace and timing and 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 CS/CSS troops, who currently have no optic. The 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 and MK19 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	16.480	6.090	-	-	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.618	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	19.098	6.090	-	-	-	-	-	-

Justification:

FY 2021 base procurement dollars in the amount of \$0.00 million.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
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		
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 2021 Army **Date:** February 2020

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: 3020GZ1290 / M249 SAW Machine Gun 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	219.276	3.139	-	-	-	-	-	-	-	-	-	222.415
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	219.276	3.139	-	-	-	-	-	-	-	-	-	222.415
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	219.276	3.139	-	-	-	-	-	-	-	-	-	222.415

(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). The M249 Squad Automatic Weapon (SAW) is a 5.56mm, lightweight machine gun that can be utilized in either the automatic rifle or light machine gun role. Various system enhancements have been identified that improve the use of this weapon system. Improved components include a collapsible buttstock, bipod, drop-in mount cradle and 200-round ammunition pack. Other items being procured to enhance Soldier performance include design modifications to the lightweight ground mount and standard/short barrels. The M197 Vehicle Mount is the current interface used to mount the M249 SAW and M240B Medium Machine Gun to most vehicle platforms. A system improvement (drop in mount cradle) adds a link/spent case deflector and ammo handling system to provide capability upgrades addressing issues that Soldiers have been identified as shortcomings of the current system. The M192 is the primary ground mount for the M240B/L and M249 machine guns. Based on recent combat experience, improvements are required to address identified shortcomings in the design and to enhance operational performance.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.139	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.139	-	-	-	-	-	-	-

Justification:

FY 2021 Base procurement dollars in the amount of \$0.000 million.

In accordance with Section 1815 of the FY2008 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 2021 Army **Date:** February 2020

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: 3030GZ1300 / M240 Medium Machine Gun 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	172.192	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	172.192	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	172.192	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-	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). The M240B/L Medium Machine Gun is an infantry version of the M240 Armored Machine Gun used to replace the M60 Series Machine Gun in Light Infantry, Mechanized Infantry, Armor, Rangers, Special Forces, and select Combat Engineer units. Since the initial fielding of the M240B, various system enhancements have been identified that further improve the use of this weapon system by increasing functionality and performance capabilities, while improving training capability. These include adopting a forward rail system to mount ancillary sighting/night vision equipment, an accessory ammunition pouch, a spare barrel bag to transport and store overheated barrels, and an improved Lightweight Ground Mount. Additional enhancements include improved bipod, sling, short barrel, improved barrel, combat ammo pack, improved hydraulic buffer, drop-in mount cradle, design modifications to the Lightweight Ground Mount, collapsible buttstock and Mounted Machine Gun Optic. These enhancements are applicable to both the M240B and M240L. M240L reduces the weight of the existing M240B by approximately 6 pounds.

The M197 Vehicle Mount is the current standard used to mount the M249 Squad Automatic Weapon and M240B to most vehicle platforms. A system improvement (drop in mount cradle) adds a link/spent case deflector and ammo handling system to provide capability upgrades addressing issues that Soldiers have identified as shortcomings of the current system. The M192 is the primary ground mount for the M240B/L and M249 machineguns. Based on recent combat experience, improvements are required to address identified shortcomings in the design and to enhance operational performance.

Fielding of the M240H Machine Gun requires replacement/upgrade of the helicopter mounts/cradles to accommodate the replacement M240H. This upgrade enhances the performance of the armament subsystems the M240H is assigned to thereby increasing the overall survivability of the aircraft platform. Improved mounts are required to be fielded to both the UH-60 and CH-47 platforms.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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: 3030GZ1300 / M240 Medium Machine Gun 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 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	GZ1300 / M240 Medium Machine Gun MODS (Increase Performance)		A		- / 172.192	- / 6.947	- / 8.000	- / 6.385	- / -	- / 6.385
P-40	Total Gross/Weapon System Cost				- / 172.192	- / 6.947	- / 8.000	- / 6.385	- / -	- / 6.385

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	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	GZ1300 / M240 Medium Machine Gun MODS (Increase Performance)		A		- / 7.992	- / 7.992	- / 7.992	- / -	Continuing	Continuing
P-40	Total Gross/Weapon System Cost				- / 7.992	- / 7.992	- / 7.992	- / -	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 2021 Base procurement dollars in the amount of \$6.385 million supports the Active Army by purchasing system enhancements for the M240B/L Medium Machine Gun Weapon System. Systems enhancements have been identified by fielded units to further improve the reliability and functionality of this weapon system. These include improved barrels and Mounted Machinegun Optics. Production of the items allow for fielding to approximately 16 Infantry Brigade Combat Teams (IBCT). M240L reduces the Soldier's combat load while allowing easier handling and movement of the weapon.

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 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20	P-1 Line Item Number / Title: 3030GZ1300 / M240 Medium Machine Gun MODS	Modification Number / Title: GZ1300 / M240 Medium Machine Gun MODS

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	172.192	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	172.192	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	172.192	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-	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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The M240B/L Medium Machine Gun is an infantry version of the M240 Armored Machine Gun used to replace the M60 Series Machine Gun in Light Infantry, Mechanized Infantry, Armor, Rangers, Special Forces, and select Combat Engineer units. Since the initial fielding of the M240B, various system enhancements have been identified that further improve the use of this weapon system by increasing functionality and performance capabilities, while improving training capability. These include adopting a forward rail system to mount ancillary sighting/night vision equipment, an accessory ammunition pouch, a spare barrel bag to transport and store overheated barrels, and improvements for the Lightweight Ground Mount. Additional enhancements include improved bipod, sling, short barrel, improved barrel, combat ammo pack, improved hydraulic buffer, drop-in mount cradle, collapsible buttstock, and Mounted Machine Gun Optic. These enhancements are applicable to both the M240B and M240L. M240L reduces the weight of the existing M240B by approximately 6 pounds.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-

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Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20					P-1 Line Item Number / Title: 3030GZ1300 / M240 Medium Machine Gun MODS					Modification Number / Title: GZ1300 / M240 Medium Machine Gun MODS			
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:						
Models of Systems Affected: M240 Medium Machine Gun				Modification Type: Increase Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	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													
<i>Modification Item 1 of 1:</i> M240 Series System Improvements													
B Kits													
Recurring													
Bipods	5,556 / 16.979	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5,556 / 16.979	
Collapsible Buttstock	6,890 / 14.724	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6,890 / 14.724	
Ti Adjustable Bipods	2,077 / 0.960	2,200 / 1.429	3,200 / 2.130	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7,477 / 4.519	
Improved Buffer	34,196 / 19.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34,196 / 19.200	
Improved Barrel	6,400 / 15.396	2,600 / 2.488	4,000 / 3.904	6,051 / 4.533	- / -	6,051 / 4.533	6,431 / 7.038	6,431 / 7.175	6,431 / 7.350	- / -	Continuing	Continuing	
M197 MWO Kit Drop-in Mount Cradle	1,109 / 10.759	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,109 / 10.759	
M192 Modification Work Order Kit	- / -	384 / 0.581	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	384 / 0.581	
Engineering Support	- / 127.856	- / 0.809	- / 0.903	- / 0.647	- / -	- / 0.647	- / 0.408	- / 0.367	- / 0.442	- / -	- / -	- / 31.432	
Program Management Support	- / 36.976	- / 0.876	- / 0.506	- / 0.633	- / -	- / 0.633	- / 0.206	- / 0.050	- / 0.050	- / -	- / -	- / 39.297	
Integrated Logistical Support	- / 16.263	- / 0.314	- / 0.222	- / 0.175	- / -	- / 0.175	- / 0.100	- / 0.050	- / -	- / -	- / -	- / 17.124	
Fielding	- / 13.079	- / 0.450	- / 0.335	- / 0.372	- / -	- / 0.372	- / 0.240	- / 0.350	- / 0.150	- / -	- / -	- / 14.976	
Mounted MG Optic (MMO)	- / -	- / -	- / -	10 / 0.025	- / -	10 / 0.025	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	56,228 / 172.192	5,184 / 6.947	7,200 / 8.000	6,061 / 6.385	- / -	6,061 / 6.385	6,431 / 7.992	6,431 / 7.992	6,431 / 7.992	- / -	Continuing	Continuing	
<i>Subtotal: M240 Series System Improvements</i>	56,228 / 172.192	5,184 / 6.947	7,200 / 8.000	6,061 / 6.385	- / -	6,061 / 6.385	6,431 / 7.992	6,431 / 7.992	6,431 / 7.992	- / -	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	56,228 / 172.192	5,184 / 6.947	7,200 / 8.000	6,061 / 6.385	- / -	6,061 / 6.385	6,431 / 7.992	6,431 / 7.992	6,431 / 7.992	- / -	Continuing	Continuing	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	172.192	6.947	8.000	6.385	-	6.385	7.992	7.992	7.992	-	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 20			P-1 Line Item Number / Title: 3030GZ1300 / M240 Medium Machine Gun MODS			Modification Number / Title: GZ1300 / M240 Medium Machine Gun MODS	
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:		
Modification Item 1 of 1: M240 Series System Improvements							
Manufacturer Information							
Manufacturer Name: N/A				Manufacturer Location: N/A			
Administrative Leadtime (in Months): 5				Production Leadtime (in Months): 7			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023	Mar 2024	Mar 2025
Delivery Dates	Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023	Oct 2024	Oct 2025
Installation Information							
Method of Implementation (Organic): Installed by Troops					Installation Quantity: 0		

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	43.166	2.747	2.426	1.898	-	1.898	1.855	1.890	1.792	2.111	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	43.166	2.747	2.426	1.898	-	1.898	1.855	1.890	1.792	2.111	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	43.166	2.747	2.426	1.898	-	1.898	1.855	1.890	1.792	2.111	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 to conduct 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), and improved capabilities including an enhanced Army common mil-radian reticle pattern to recognize and engage targets at longer ranges and lower light levels increasing hit probability. 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.747	2.426	1.898	-	1.898	1.855	1.890	1.792
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.747	2.426	1.898	-	1.898	1.855	1.890	1.792

Justification:

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
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		
<p>FY 2021 Base procurement dollars in the amount of \$1.898 million supports the Active Army through engineering studies and procurement of weapon conversions using engineering change proposals (ECP's). It also supports procurement of modifications or upgrades and additional components to be included in Advanced Sniper Accessory Kits (ASAK) and M151 Spotting Scope System, such as the Ballistic Weather Meter (BWM), Sniper Scope Covert Cap, Weapon Tripod Cradle, Sniper Data Board, and the Accessory Interface Mounting (AIM) kit, respectively. Continued support for modifications of the M110 SASS, M2010 ESR, and M107 LRSR Modifications. These studies, modifications, and upgrades provide a more full-spectrum and versatile suite of sniper rifles that improves ergonomics, survivability, capability, and portability without sacrificing performance, accuracy and reliability. Efforts also include evaluation and/or validation of any proposed ECP's regarding sniper optics and any ancillary equipment enhancements that can include performing engineering studies to investigate the proposed enhancements and also to procure samples for evaluation.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is 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 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	382.787	5.704	16.269	2.009	-	2.009	-	-	-	-	-	406.769
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	382.787	5.704	16.269	2.009	-	2.009	-	-	-	-	-	406.769
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	382.787	5.704	16.269	2.009	-	2.009	-	-	-	-	-	406.769

(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 M119A3 Towed Howitzer provides direct fire support for the Infantry Brigade Combat Teams (IBCT). Funding in the M119A3 modifications budget supports the application of modernization system enhancements and includes the integration of digital fire control components previously type classified on other weapons. Other modifications to the howitzer include items such as: Recoil System Capability Package, to enhance survivability and durability by replacing the Buffer and Recuperator and modifying the suspension; Titanium firing platforms for enhanced durability; Fire Control Computer (FCC) covers to protect the FCC from damage; FCC thumb stick/mouse to allow FCC to remain mission capable with damaged touch screen; Resiliency and Software Assurance Modification to ensure robust Global Positioning System (GPS) capability; Software upgrade to accurately account for the effects of Blast Over Pressure; and radio modification which provides for the integration of a new Army software defined radio into the digital fire control system of the M119A3 howitzer. Funding in this program also supports the installation and retrofit of modification kits, training devices products and program management and technical support to the M119A3 Howitzer.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.912	16.269	2.009	-	2.009	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.792	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.704	16.269	2.009	-	2.009	-	-	-

Justification:

FY 2021 Base procurement dollars in the amount of \$2.009 million supports:

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
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		
<p>Retrofit and installation of previously purchased hardware and software modifications. Retrofit teams will update the hardware on the firing platform to the new configurations which enhances the durability of the howitzer and addresses deficiencies in the legacy systems. Retrofit teams will also update the Digital Fire Control System (DFCS) software to the latest version which allows for more accurate and timely on-platform diagnostics. The new hardware and software will lead to higher levels of readiness.</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 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	130.837	3.965	1.693	1.689	-	1.689	1.689	1.690	1.690	-	-	143.253
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	130.837	3.965	1.693	1.689	-	1.689	1.689	1.690	1.690	-	-	143.253
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	130.837	3.965	1.693	1.689	-	1.689	1.689	1.690	1.690	-	-	143.253

(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>)	137.290	15.672	-	-	-	-	-	-	-	-	-	118.784

Description:

Mortar System Modifications provides system improvements to support modernized mortar weapon systems and enables the replacement of aging/obsolete major system components. Improvements include updates to M326 Mortar Stowage Kit (MSK) system to increase producibility, and enable integration with future/unmanned platforms (for example: Joint Light Tactical Vehicle, Polaris, M1279 Utility Vehicle), and future weapon system components. 60mm, 81mm, and 120mm mortar weapon system updates include light weight components, Technical Data Package (TDP) changes to increase producibility within the United States industrial base, support higher firing pressures, integration of new components to improve system accuracy, and enable better tracking of remaining cannon service life; for example, direct lay pointing devices and round counters.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	3.965	1.693	1.689	-	1.689	1.689	1.690	1.690	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	3.965	1.693	1.689	-	1.689	1.689	1.690	1.690	-

Justification:

FY 2021 Base procurement dollars in the amount of \$1.689 million supports the modification and integration of M326 Mortar Stowage Kit (MSK) systems on future/unmanned platforms. The Mortar Modification support funds are essential to meet US Army requirements to modernize 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 Regiment.

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 2021 Army **Date:** February 2020

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: 9280GC0925 / Modifications 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	209.679	6.362	4.327	2.604	-	2.604	2.360	2.336	2.713	3.608	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	209.679	6.362	4.327	2.604	-	2.604	2.360	2.336	2.713	3.608	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	209.679	6.362	4.327	2.604	-	2.604	2.360	2.336	2.713	3.608	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). This program procures modification of small arms through the procurement of accessory components, kits, or maintenance work orders (MWO) for weapons ranging up to 40mm caliber. This includes but is not limited to mounting systems, tripods, bipods, rails, barrels, stocks, optics, coatings and lubrications. In addition, engineering studies will investigate modification and production issues of all small arms weapons.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	6.362	4.327	2.604	-	2.604	2.360	2.336	2.713	3.608
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	6.362	4.327	2.604	-	2.604	2.360	2.336	2.713	3.608

Justification:

FY 2021 Base procurement dollars in the amount of \$2.604 million supports the Active Army by procuring 1,250 M192 MWO Kits to modify fielded systems. The M192 MWO Kit delivers a system improvement to this lightweight tripod. Fielded in 2005, the M192 is no longer compatible with the various body armor designs fielded in recent years. The M192 MWO Kit addresses identified shortcomings in the design and provides increased height of the pintle as well as improved performance of the traversing and elevation mechanism. Funding also supports the continued fielding of the M197 MWO Kit which upgrades the existing M197 Vehicle Mounts to add a link/spent case deflector and ammo handling system. These upgrades provide capability improvements addressing issues that Soldiers have identified as shortcomings of the current system. During the year of execution additional unplanned work efforts may be required to support small arms modifications as listed in the description.

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 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	138.389	4.571	3.066	2.763	-	2.763	2.866	2.974	3.171	3.196	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	138.389	4.571	3.066	2.763	-	2.763	2.866	2.974	3.171	3.196	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	138.389	4.571	3.066	2.763	-	2.763	2.866	2.974	3.171	3.196	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 of standard and non-standard small arms to include auxiliary components such as 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, M9 Pistols 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. Funding will also purchase Non-Standard weapons to support the Regionally Aligned Forces (RAF) as well as limited distribution weapons/accessories such as world class Olympic Grade marksmanship weapons and accessories to support the Army Marksmanship Unit (AMU) 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 Fort Carson Police/Provost Marshal Division to assist with varmint control, standard and non-standard caliber Pistols and Rifles, Shooting glasses and scopes, Free Pistols, Shot Guns and bolt action rifles.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.571	3.066	2.763	-	2.763	2.866	2.974	3.171	3.196
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.571	3.066	2.763	-	2.763	2.866	2.974	3.171	3.196

Justification:

FY 2021 Base procurement dollars in the amount of \$2.763 million supports the Active Army by providing funding for the Army Marksmanship Unit (AMU) and National Guard Biathlon Teams. The AMU competes worldwide on a regular basis. Between competitions the AMU fires constantly to hone their skills and maintain their competitive edge resulting in high annual round counts. Despite the high level of maintenance provided, these weapons exceed their stated effective life projections much faster than typical fielded weapons. Requiring the weapons to be coded out and replaced regularly.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
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>Base funding will also provide for the procurement and training of various Non-Standard Weapons to support the regionally engaged Active Army. These weapons are required to facilitate training of US Army units on host nation weapon systems prior to deployment in support of Regionally Aligned Force (RAF) missions. In addition, the base funding will procure APC9K adapters to allow other ARMY 9mm magazines to be utilized.</p> <p>The Army will procure Biathlon Rifles for the Army National Guard Biathlon Teams. Funding supports senior commanders and key personnel as High Risk Personnel (HRP). HRPs are authorized a Personal Security Detail (PSD), which are assigned to guard against outlined threats. To address this operational need, PSD military personnel require weapons with greater lethality than pistols that are more concealable than rifles. The ultimate objective of this program is to acquire a highly concealable Sub Compact Weapon (SCW) system capable of engaging threat personnel with a high volume of lethal force while accurately firing at close range with minimal collateral damage. Future Army SCW requirements are being evaluated by MCoE for FORSCOM units. Also procures small caliber rifles for the law enforcement program to control wildlife on Army Posts. The Army will also procure ceremonial pistols for the 11th Armored Cavalry Regiment (ACR) at the National Training Center, Ft. Irwin, California.</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 2021 Army **Date:** February 2020

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	327.976	3.296	2.651	3.045	-	3.045	3.531	3.596	3.697	3.698	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	327.976	3.296	2.651	3.045	-	3.045	3.531	3.596	3.697	3.698	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	327.976	3.296	2.651	3.045	-	3.045	3.531	3.596	3.697	3.698	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 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.

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 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. Provisioning of Industrial Facilities (PIF) occurs at Rock Island Arsenal, IL; Watervliet Arsenal, NY; and General Dynamics-Armaments and Technical Products, Saco, ME. The Layaway of Industrial Facilities (LIF) and Maintenance of Laid-away Industrial Facilities (MLIF) funding supports unique and necessary equipment at Watervliet Arsenal, NY. This program also provides funding for the Arsenal Support Program Initiative.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.296	2.651	3.045	-	3.045	3.531	3.596	3.697
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.296	2.651	3.045	-	3.045	3.531	3.596	3.697

Justification:

FY 2021 Base procurement dollars in the amount of \$3.045 million support the following:

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
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>At ATC, will continue to modernize fire control instrumentation required to assess weapon system fire control performance on a wide range of test items. ATC will continue replacing and upgrading weapon, sight, and target scoring HD 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.</p> <p>At ATC, will also continue modernizing the obsolete geodetic equipment which will allow ATC to obtain full Global Positioning System (GPS) functionality for all test missions. Purchases will include: GPS Rover, GPS Base, Front-end Processor, Data Collectors and Electronic Total Station. This effort will greatly improve ATC's ability to support all test events that require GPS surveying in real time.</p> <p>At YTC, will continue procuring vibration facility support equipment and instrumentation as part of the dynamic test support equipment replacement/upgrade. Will also procure fixtures and adapters for vehicle mounted ammo storage racks and containers. This effort will help YTC maintain vibration and shock testing capabilities for automotive and indirect fire systems in desert environments, such as M-109 Paladin, M-1 Abrams and 155mm Howitzers.</p> <p>At YTC, will continue upgrading analytical laboratory analyzers, laboratory equipment, computing equipment and software so the Material Analysis Laboratory will retain the capabilities required to support testing of advanced tactical vehicles and weapon systems.</p> <p>At 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 effort will help WSTC meet regulatory, customer, and/or evolving mission requirements.</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>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

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: 4010GC0076 / Small Arms Equipment (Soldier Enh Prog)
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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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	114.846	1.640	-	-	-	-	-	-	-	-	-	116.486
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	114.846	1.640	-	-	-	-	-	-	-	-	-	116.486
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	114.846	1.640	-	-	-	-	-	-	-	-	-	116.486

(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 Soldier Enhancement Program (SEP) was established by the Fiscal Year 1990 National Defense Authorization Act. The purpose of the SEP is to provide an impetus for increasing the combat effectiveness of our Army Infantryman/Soldiers through the procurement of Commercial Off the Shelf (COTS), Government Off the Shelf (GOTS) or Non-Developmental Item (NDI) of lighter, more lethal weapons and improved equipment, including lighter, more comfortable loadbearing equipment, field gear, survivability items, communications equipment, navigational aids and training capabilities for Soldier evaluation. SEP WTCV funding provides the mean of procuring lighter, more lethal infantry weapons and various types of equipment designed to increase Soldier's survivability and lethality.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.640	-	-	-	-	-	-	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.640	-	-	-	-	-	-	-	-

Justification:

FY 2021 Base procurement dollars in the amount of \$0.000 million.

"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."