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**Department of Defense  
Fiscal Year (FY) 2020 Budget Estimates**

March 2019



**Army**

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

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Army • Budget Estimates FY 2020 • Procurement

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## Cost Statement

The following Justification Books were prepared at a cost of \$366,803.08: 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, and Budget Activity 7.

# 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, \$5,069,020,000 to remain available for obligation until September 30, 2022.

FY 2020 Overseas Contingency Operations funding can be separated into the following categories:

- OCO for Direct War Costs (\$22,074,000): 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 (\$331,380,000): 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  
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 Total Obligational Authority  
 (Dollars in Thousands)

04 Mar 2019

<u>Appropriation</u>	<u>FY 2018 (Base + OCO)</u>	<u>FY 2019 Base Enacted</u>	<u>FY 2019 OCO Enacted</u>	<u>FY 2019 Total Enacted</u>
Procurement of W&TCV, Army	5,776,480	4,486,402	1,102,108	5,588,510
Total Department of the Army	5,776,480	4,486,402	1,102,108	5,588,510

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<u>Appropriation</u>	<u>FY 2020 Base</u>	<u>FY 2020 OCO for Base Requirements</u>	<u>FY 2020 OCO for Direct War and Enduring Costs</u>	<u>FY 2020 Total OCO</u>
Procurement of W&TCV, Army	4,715,566		353,454	353,454
Total Department of the Army	4,715,566		353,454	353,454



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04 Mar 2019

<u>Appropriation</u>	<u>FY 2020 Total (Base + OCO)</u>
Procurement of W&TCV, Army	5,069,020
Total Department of the Army	5,069,020

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04 Mar 2019

Appropriation: Procurement of W&TCV, Army

<u>Budget Activity</u>	<u>FY 2018 (Base + OCO)</u>	<u>FY 2019 Base Enacted</u>	<u>FY 2019 OCO Enacted</u>	<u>FY 2019 Total Enacted</u>
01. Tracked Combat Vehicles	5,413,190	4,106,831	1,078,638	5,185,469
02. Weapons and Other Combat Vehicles	363,290	379,571	23,470	403,041
Total Procurement of W&TCV, Army	5,776,480	4,486,402	1,102,108	5,588,510

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Appropriation: Procurement of W&TCV, Army

Budget Activity	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO
01. Tracked Combat Vehicles	4,522,508		318,984	318,984
02. Weapons and Other Combat Vehicles	193,058		34,470	34,470
Total Procurement of W&TCV, Army	4,715,566		353,454	353,454

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Appropriation: Procurement of W&TCV, Army

<u>Budget Activity</u>	<u>FY 2020 Total (Base + OCO)</u>
01. Tracked Combat Vehicles	4,841,492
02. Weapons and Other Combat Vehicles	227,528
Total Procurement of W&TCV, Army	5,069,020

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Appropriation: 2033A Procurement of W&amp;TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2018 (Base + OCO)		FY 2019 Base Enacted		FY 2019 OCO Enacted		FY 2019 Total Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Tracked Combat Vehicles											
-----											
Tracked Combat Vehicles											
1	Bradley Program	B	183	483,050			61	205,000	61	205,000	U
2	Armored Multi Purpose Vehicle (AMPV)	A	131	558,318	131	447,458	66	225,284	197	672,742	U
Modification of Tracked Combat Vehicles											
3	Stryker (MOD)	A		285,320		127,301				127,301	U
4	Stryker Upgrade	A	207	633,000	82	265,290			82	265,290	U
5	Bradley Program (MOD)	A		585,851		465,424		50,000		515,424	U
6	M109 FOV Modifications	A		49,665		26,482				26,482	U
7	Paladin Integrated Management (PIM)	A	73	772,149	45	458,902	6	67,000	51	525,902	U
8	Improved Recovery Vehicle (M88A2 Hercules)	A	36	153,378	26	110,500	12	42,354	38	152,854	U
9	Assault Bridge (Mod)			4,736		2,120				2,120	U
10	Assault Breacher Vehicle	A	13	64,221	12	62,407			12	62,407	U
11	M88 FOV MODS	A		4,826		4,517				4,517	U
12	Joint Assault Bridge	A	27	128,350	28	139,146			28	139,146	U
13	M1 Abrams Tank (MOD)	A		602,026		925,041		34,000		959,041	U
14	Abrams Upgrade Program	A	120	1,088,300	118	1,072,243	50	455,000	168	1,527,243	U
Total Tracked Combat Vehicles				5,413,190		4,106,831		1,078,638		5,185,469	

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Appropriation: 2033A Procurement of W&TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Base		FY 2020 OCO for Base Requirements		FY 2020 OCO for Direct War and Enduring Costs		FY 2020 Total OCO		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	65	264,040			66	221,638	66	221,638	U
Modification of Tracked Combat Vehicles											
3	Stryker (MOD)	A		144,387				4,100		4,100	U
4	Stryker Upgrade	A	152	550,000							U
5	Bradley Program (MOD)	A		638,781							U
6	M109 FOV Modifications	A		25,756							U
7	Paladin Integrated Management (PIM)	A	53	553,425							U
8	Improved Recovery Vehicle (M88A2 Hercules)	A					16	80,146	16	80,146	U
9	Assault Bridge (Mod)			2,821							U
10	Assault Breacher Vehicle	A	6	31,697							U
11	M88 FOV MODS	A		4,500							U
12	Joint Assault Bridge	A	44	205,517							U
13	M1 Abrams Tank (MOD)	A		348,800				13,100		13,100	U
14	Abrams Upgrade Program	A	165	1,752,784							U
Total Tracked Combat Vehicles				4,522,508				318,984		318,984	

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Line No	Item Nomenclature	Ident Code	FY 2020 Total (Base + OCO)		S e c -
			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	131	485,678	U
Modification of Tracked Combat Vehicles					
3	Stryker (MOD)	A		148,487	U
4	Stryker Upgrade	A	152	550,000	U
5	Bradley Program (MOD)	A		638,781	U
6	M109 FOV Modifications	A		25,756	U
7	Paladin Integrated Management (PIM)	A	53	553,425	U
8	Improved Recovery Vehicle (M88A2 Hercules)	A	16	80,146	U
9	Assault Bridge (Mod)			2,821	U
10	Assault Breacher Vehicle	A	6	31,697	U
11	M88 FOV MODS	A		4,500	U
12	Joint Assault Bridge	A	44	205,517	U
13	M1 Abrams Tank (MOD)	A		361,900	U
14	Abrams Upgrade Program	A	165	1,752,784	U
Total Tracked Combat Vehicles				4,841,492	

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Line No	Item Nomenclature	Ident Code	FY 2018 (Base + OCO)		FY 2019 Base Enacted		FY 2019 OCO Enacted		FY 2019 Total Enacted		S e c -
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 02: Weapons and Other Combat Vehicles											
Weapons & Other Combat Vehicles											
15	M240 Medium Machine Gun (7.62MM)	A		9,874		14,455		126		14,581	U
16	MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON S	A		26,520		19,880				19,880	U
17	GUN AUTOMATIC 30MM M230	A									U
18	Machine Gun, Cal .50 M2 Roll	A				22,330				22,330	U
19	Mortar Systems			21,452		12,470		11,842		24,312	U
20	XM320 Grenade Launcher Module (GLM)	A		18,524		18,197				18,197	U
21	Precision Sniper Rifle	A									U
22	Compact Semi-Automatic Sniper System	A				46,236				46,236	U
23	Carbine	A		43,150		67,806		1,800		69,606	U
24	Small Arms - Fire Control	B									U
25	Common Remotely Operated Weapons Station			22,250		35,968		3,378		39,346	U
26	Handgun	A		8,326		48,251				48,251	U
27	Howitzer Lt Wt 155mm (T)			61,100							U
Mod of Weapons and Other Combat Veh											
28	MK-19 Grenade Machine Gun Mods			2,000		1,684				1,684	U
29	M777 Mods	A		28,672		3,086				3,086	U
30	M4 Carbine Mods	A		31,069		38,075				38,075	U

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			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					900		900		U
16	MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON S	A		19,420			2,400		2,400		U
17	GUN AUTOMATIC 30MM M230	A		20,000							U
18	Machine Gun, Cal .50 M2 Roll	A									U
19	Mortar Systems			14,907			18,941		18,941		U
20	XM320 Grenade Launcher Module (GLM)	A		191			526		526		U
21	Precision Sniper Rifle	A		7,977							U
22	Compact Semi-Automatic Sniper System	A		9,860							U
23	Carbine	A		30,331			1,183		1,183		U
24	Small Arms - Fire Control	B		8,060							U
25	Common Remotely Operated Weapons Station			24,007			4,182		4,182		U
26	Handgun	A		6,174			248		248		U
27	Howitzer Lt Wt 155mm (T)										U
Mod of Weapons and Other Combat Veh											
28	MK-19 Grenade Machine Gun Mods			3,737							U
29	M777 Mods	A		2,367							U
30	M4 Carbine Mods	A		17,595							U

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Appropriation: 2033A Procurement of W&amp;TCV, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total (Base + OCO)		S e c
			Quantity	Cost	
<u>Budget Activity 02: Weapons and Other Combat Vehicles</u>					
Weapons & Other Combat Vehicles					
15	M240 Medium Machine Gun (7.62MM)	A		900	U
16	MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON S	A		21,820	U
17	GUN AUTOMATIC 30MM M230	A		20,000	U
18	Machine Gun, Cal .50 M2 Roll	A			U
19	Mortar Systems			33,848	U
20	XM320 Grenade Launcher Module (GLM)	A		717	U
21	Precision Sniper Rifle	A		7,977	U
22	Compact Semi-Automatic Sniper System	A		9,860	U
23	Carbine	A		31,514	U
24	Small Arms - Fire Control	B		8,060	U
25	Common Remotely Operated Weapons Station			28,189	U
26	Handgun	A		6,422	U
27	Howitzer Lt Wt 155mm (T)				U
Mod of Weapons and Other Combat Veh					
28	MK-19 Grenade Machine Gun Mods			3,737	U
29	M777 Mods	A		2,367	U
30	M4 Carbine Mods	A		17,595	U

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Line No	Item Nomenclature	Ident Code	FY 2018 (Base + OCO)		FY 2019 Base Enacted		FY 2019 OCO Enacted		FY 2019 Total Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
31	M2 50 Cal Machine Gun Mods	B		50,414		14,178		4,920		19,098	U
32	M249 Saw Machine Gun Mods			3,339		3,924				3,924	U
33	M240 Medium Machine Gun Mods	A		4,577		6,940		7		6,947	U
34	Sniper Rifles Modifications			1,488		2,747				2,747	U
35	M119 Modifications	A		13,478		5,704				5,704	U
36	Mortar Modification	A		3,198		3,965				3,965	U
37	Modifications Less Than \$5.0m (WOCV-WTCV)			2,219		5,577				5,577	U
Support Equipment & Facilities											
38	Items Less Than \$5.0m (WOCV-WTCV)			5,075		3,174		1,397		4,571	U
39	Production Base Support (WOCV-WTCV)			992		3,284				3,284	U
40	Industrial Preparedness			4,000							U
41	Small Arms Equipment (Soldier Enh Prog)			1,573		1,640				1,640	U
Total Weapons and Other Combat Vehicles				363,290		379,571		23,470		403,041	
Total Procurement of W&TCV, Army				5,776,480		4,486,402		1,102,108		5,588,510	

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Line No	Item Nomenclature	Ident Code	FY 2020 Base		FY 2020 OCO for Base Requirements		FY 2020 OCO for Direct War and Enduring Costs		FY 2020 Total OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
31	M2 50 Cal Machine Gun Mods	B						6,090		6,090	U
32	M249 Saw Machine Gun Mods										U
33	M240 Medium Machine Gun Mods	A		8,000							U
34	Sniper Rifles Modifications			2,426							U
35	M119 Modifications	A		6,269							U
36	Mortar Modification	A		1,693							U
37	Modifications Less Than \$5.0m (WOCV-WTCV)			4,327							U
Support Equipment & Facilities											
38	Items Less Than \$5.0m (WOCV-WTCV)			3,066							U
39	Production Base Support (WOCV-WTCV)			2,651							U
40	Industrial Preparedness										U
41	Small Arms Equipment (Soldier Enh Prog)										U
Total Weapons and Other Combat Vehicles				193,058				34,470		34,470	
Total Procurement of W&TCV, Army				4,715,566				353,454		353,454	

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Line No	Item Nomenclature	Ident Code	FY 2020 Total (Base + OCO)		S e c
			Quantity	Cost	
31	M2 50 Cal Machine Gun Mods	B		6,090	U
32	M249 Saw Machine Gun Mods				U
33	M240 Medium Machine Gun Mods	A		8,000	U
34	Sniper Rifles Modifications			2,426	U
35	M119 Modifications	A		6,269	U
36	Mortar Modification	A		1,693	U
37	Modifications Less Than \$5.0m (WOCV-WTCV)			4,327	U
Support Equipment & Facilities					
38	Items Less Than \$5.0m (WOCV-WTCV)			3,066	U
39	Production Base Support (WOCV-WTCV)			2,651	U
40	Industrial Preparedness				U
41	Small Arms Equipment (Soldier Enh Prog)				U
Total Weapons and Other Combat Vehicles				<u>227,528</u>	
Total Procurement of W&TCV, Army				<u>5,069,020</u>	



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Abrams Upgrade Program	6500GA0750	14	01	20.....	145
Armored Multi Purpose Vehicle (AMPV)	2944G80819	2	01	10.....	2
Assault Breacher Vehicle	4872G82925	10	01	20.....	110
Assault Bridge (Mod)	4520GZ3250	9	01	20.....	108
BRADLEY PROGRAM	2897G80718	1	01	10.....	1
Bradley Program (MOD)	1678GZ2400	5	01	20.....	44
COMPACT SEMI-AUTOMATIC SNIPER SYSTEM	8194G01507	22	02	10.....	183
Carbine	8201G13501	23	02	10.....	188
Common Remotely Operated Weapons Station	8310G04700	25	02	10.....	204
GUN AUTOMATIC 30MM M230	4368G13800	17	02	10.....	161
Handgun	8635G15325	26	02	10.....	209
Howitzer Lt Wt 155mm (T)	9582G01700	27	02	10.....	215
Improved Recovery Vehicle (M88A2 HERCULES)	3700GA0570	8	01	20.....	99
Industrial Preparedness	3400GC0075	40	02	30.....	272
Items Less Than \$5.0m (WOCV-WTCV)	1862GL3200	38	02	30.....	268
Joint Assault Bridge	5225GZ3001	12	01	20.....	119
M1 Abrams Tank (MOD)	6406GA0700	13	01	20.....	128

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<b>Line Item Title</b>	<b>Line Item Number</b>	<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Page</b>
M109 FOV Modifications	2072GA0400	6	01	20.....	62
M119 Modifications	3640GC0401	35	02	20.....	249
M2 50 Cal Machine Gun MODS	3015GB4000	31	02	20.....	231
M240 Medium Machine Gun (7.62mm)	2472G13000	15	02	10.....	154
M240 Medium Machine Gun MODS	3030GZ1300	33	02	20.....	242
M249 SAW Machine Gun MODS	3020GZ1290	32	02	20.....	241
M4 Carbine Mods	3010GB3007	30	02	20.....	221
M777 Mods	3005GZ1700	29	02	20.....	219
M88 FOV MODS	5129G80571	11	01	20.....	118
MK-19 Grenade Machine Gun MODS	3000GB3000	28	02	20.....	217
MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM	3736G13101	16	02	10.....	155
Machine Gun, Cal .50 M2 Roll	5000GB2000	18	02	10.....	169
Modifications Less Than \$5.0m (WOCV-WTCV)	9280GC0925	37	02	20.....	266
Mortar Modification	7054G02100	36	02	20.....	265
Mortar Systems	6580G02200	19	02	10.....	170
Paladin Integrated Management (PIM)	2073GZ0410	7	01	20.....	88
Precision Sniper Rifle	8190G01506	21	02	10.....	178
Production Base Support (WOCV-WTCV)	3270GC0050	39	02	30.....	270
Small Arms - Fire Control	8212G17200	24	02	10.....	197
Small Arms Equipment (Soldier Enh Prog)	4010GC0076	41	02	30.....	273

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<b>Line Item Title</b>	<b>Line Item Number</b>	<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Page</b>
Sniper Rifles Modifications	3181GZ1500	34	02	20.....	247
Stryker (Mod)	0230GM0100	3	01	20.....	11
Stryker Upgrade	0363G85200	4	01	20.....	33
XM320 Grenade Launcher Module (GLM)	8181G01501	20	02	10.....	176

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	27	183	61	-	-	-	-	-	-	-	-	271
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	72.800	483.050	205.000	-	-	-	-	-	-	-	-	760.850
Less PY Advance Procurement ( <i>\$ in Millions</i> )	22.504	-	-	-	-	-	-	-	-	-	-	22.504
Net Procurement (P-1) ( <i>\$ in Millions</i> )	50.296	483.050	205.000	-	-	-	-	-	-	-	-	738.346
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	22.504	-	-	-	-	-	-	-	-	-	-	22.504
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>72.800</b>	<b>483.050</b>	<b>205.000</b>	-	-	-	-	-	-	-	-	<b>760.850</b>

*(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> )	2,696.296	2,639.617	3,360.656	-	-	-	-	-	-	-	-	2,807.565

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	183	61	-	-	-	-	-	-	-
Total Obligation Authority	483.050	205.000	-	-	-	-	-	-	-
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	<b>183</b>	<b>61</b>	-	-	-	-	-	-	-
Total Obligation Authority	<b>483.050</b>	<b>205.000</b>	-	-	-	-	-	-	-

**Justification:**

FY 2020 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 2020 Army **Date:** March 2019

**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): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0605028A

**Line Item MDAP/MAIS Code:** 471

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	131	197	65	66	131	143	143	143	192	1,817	2,897
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	558.318	672.742	264.040	221.638	485.678	617.046	621.180	642.734	738.188	10,272.884	14,608.770
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	558.318	672.742	264.040	221.638	485.678	617.046	621.180	642.734	738.188	10,272.884	14,608.770
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	-	<b>558.318</b>	<b>672.742</b>	<b>264.040</b>	<b>221.638</b>	<b>485.678</b>	<b>617.046</b>	<b>621.180</b>	<b>642.734</b>	<b>738.188</b>	<b>10,272.884</b>	<b>14,608.770</b>

*(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> )	-	4,261.969	3,414.934	4,062.154	3,358.152	3,707.466	4,315.007	4,343.916	4,494.643	3,844.729	5,653.761	5,042.724

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	131	197	65	66	131	143	143	143	192
	Total Obligation Authority	558.318	672.742	264.040	221.638	485.678	617.046	621.180	642.734	738.188
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>131</b>	<b>197</b>	<b>65</b>	<b>66</b>	<b>131</b>	<b>143</b>	<b>143</b>	<b>143</b>	<b>192</b>
	<b>Total Obligation Authority</b>	<b>558.318</b>	<b>672.742</b>	<b>264.040</b>	<b>221.638</b>	<b>485.678</b>	<b>617.046</b>	<b>621.180</b>	<b>642.734</b>	<b>738.188</b>



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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0605028A

**Line Item MDAP/MAIS Code:** 471

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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			- / -	131 / 558.318	197 / 672.742	65 / 264.040	66 / 221.638	131 / 485.678
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / -	<b>131 / 558.318</b>	<b>197 / 672.742</b>	<b>65 / 264.040</b>	<b>66 / 221.638</b>	<b>131 / 485.678</b>

\*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 2020 Base procurement dollars in the amount of \$264.040 million procures 65 Armored Multi-Purpose Vehicles (AMPVs). This represents the third year of Low Rate Initial Production (LRIP-3). In accordance with the Full Funding Policy, the entire procurement cost of the LRIP-3 assets is being budgeted in the fiscal year in which long lead time items are initially procured. Accordingly, the FY 2020 procurement cost covers all contractor efforts related to recurring production and production support, government efforts related to award of the LRIP-3 contract, and testing/training/fielding support related to the LRIP-3 vehicles. The AMPV will mitigate current and future capability gaps in force protection, mobility, reliability, and interoperability across the Spectrum of Conflict.

FY 2020 OCO procurement dollars in the amount of \$221.638 million supports COCOM requirement for unit equipment sets to deter potential adversaries and support European Deterrence Initiative (EDI). Funding will procure 66 AMPV platforms, select Mission Equipment Packages, associated training and fielding support, and additional oversight/testing efforts required for the OCO program.

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)

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 10	<b>P-1 Line Item Number / Title:</b> 2944G80819 / Armored Multi Purpose Vehicle (AMPV)	<b>Item Number / Title [DODIC]:</b> G80819 / Armored Multi Purpose Vehicle (AMPV)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
Procurement Quantity (Units in Each)	-	131	197	65	66	131
Gross/Weapon System Cost (\$ in Millions)	-	558.318	672.742	264.040	221.638	485.678
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	558.318	672.742	264.040	221.638	485.678
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	-	<b>558.318</b>	<b>672.742</b>	<b>264.040</b>	<b>221.638</b>	<b>485.678</b>

*(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)	-	4,261.969	3,414.934	4,062.154	3,358.152	3,707.466

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

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2018</b>			<b>FY 2019</b>			<b>FY 2020 Base</b>			<b>FY 2020 OCO</b>			<b>FY 2020 Total</b>		
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
<b>Flyaway Cost</b>																		
<b>Recurring Cost</b>																		
Vehicle Manufacturing - Contractor <sup>(t)</sup>	-	-	-	4,065.489	131	532.579	3,117.741	197	614.195	3,212.985	65	208.844	3,062.455	66	202.122	3,137.145	131	410.966
Engineering Change Orders	-	-	-	-	-	-	-	-	10.356	-	-	10.590	-	-	4.252	-	-	14.842
Sys Eng / Prog Mgmt (Government)	-	-	-	-	-	3.872	-	-	5.110	-	-	12.292	-	-	1.382	-	-	13.674
Sys Test & Evaluation (Government)	-	-	-	-	-	-	-	-	2.250	-	-	5.182	-	-	1.036	-	-	6.218
Training Devices	-	-	-	-	-	-	-	-	11.271	-	-	8.950	-	-	1.131	-	-	10.081
Total Package Fielding (TPF)	-	-	-	-	-	3.133	-	-	15.020	-	-	11.983	-	-	11.715	-	-	23.698
System Technical Support (STS)	-	-	-	-	-	-	-	-	-	-	-	2.722	-	-	-	-	-	2.722
<b>Subtotal: Recurring Cost</b>	-	-	-	-	-	<b>539.584</b>	-	-	<b>658.202</b>	-	-	<b>260.563</b>	-	-	<b>221.638</b>	-	-	<b>482.201</b>
<b>Non Recurring Cost</b>																		
Production Facilitization	-	-	-	-	-	18.734	-	-	14.540	-	-	3.477	-	-	-	-	-	3.477
<b>Subtotal: Non Recurring Cost</b>	-	-	-	-	-	<b>18.734</b>	-	-	<b>14.540</b>	-	-	<b>3.477</b>	-	-	-	-	-	<b>3.477</b>
<b>Subtotal: Flyaway Cost</b>	-	-	-	-	-	<b>558.318</b>	-	-	<b>672.742</b>	-	-	<b>264.040</b>	-	-	<b>221.638</b>	-	-	<b>485.678</b>
<b>Gross/Weapon System Cost</b>	-	-	-	<b>4,261.969</b>	<b>131</b>	<b>558.318</b>	<b>3,414.934</b>	<b>197</b>	<b>672.742</b>	<b>4,062.154</b>	<b>65</b>	<b>264.040</b>	<b>3,358.152</b>	<b>66</b>	<b>221.638</b>	<b>3,707.466</b>	<b>131</b>	<b>485.678</b>

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 10	<b>P-1 Line Item Number / Title:</b> 2944G80819 / Armored Multi Purpose Vehicle (AMPV)	<b>Item Number / Title [DODIC]:</b> G80819 / Armored Multi Purpose Vehicle (AMPV)

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

<b>Secondary Distribution</b>		<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
Army	Quantity	131	197	65	66	131
	Total Obligation Authority	558.318	672.742	264.040	221.638	485.678
<b>Total:</b>	<b>Quantity</b>	<b>131</b>	<b>197</b>	<b>65</b>	<b>66</b>	<b>131</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>558.318</b>	<b>672.742</b>	<b>264.040</b>	<b>221.638</b>	<b>485.678</b>

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

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2020 Army							<b>Date:</b> March 2019				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 10			<b>P-1 Line Item Number / Title:</b> 2944G80819 / Armored Multi Purpose Vehicle (AMPV)				<b>Item Number / Title [DODIC]:</b> G80819 / Armored Multi Purpose Vehicle (AMPV)				

<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ K)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
Vehicle Manufacturing - Contractor <sup>(†)</sup>		2018	BAE / York, PA	Option / FPIF	Warren, MI	Aug 2018	Mar 2020	131	4,065.489	N		
Vehicle Manufacturing - Contractor <sup>(†)</sup>		2019	BAE / York, PA	Option / FPIF	Warren, MI	Jan 2019	May 2021	197	3,117.741	N		
Vehicle Manufacturing - Contractor <sup>(†)</sup>		2020	BAE / York, PA	Option / FPIF	Warren, MI	Apr 2020	Jun 2022	131	3,137.145	N		

<sup>(†)</sup> indicates the presence of a P-21



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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army															<b>Date:</b> March 2019														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 10										<b>P-1 Line Item Number / Title:</b> 2944G80819 / Armored Multi Purpose Vehicle (AMPV)										<b>Item Number / Title [DODIC]:</b> G80819 / Armored Multi Purpose Vehicle (AMPV)									

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2020												Fiscal Year 2021												B A L A N C E			
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 9	BAL D U E A S O F 1 O C T	Calendar Year 2020												Calendar Year 2021													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L		A U G	S E P	
Vehicle Manufacturing - Contractor																																
	1	2018	ARMY	131	0	131	-	-	-	-	-	-	1	2	2	4	5	6	6	12	11	9	16	16	16	16	9					0
	1	2019	ARMY	197	0	197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	16	12	16	16	130
	1	2020	ARMY	131	0	131								A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	131	
							O C T	N O V	D E C	J A N	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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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army															<b>Date:</b> March 2019														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 10										<b>P-1 Line Item Number / Title:</b> 2944G80819 / Armored Multi Purpose Vehicle (AMPV)										<b>Item Number / Title [DODIC]:</b> G80819 / Armored Multi Purpose Vehicle (AMPV)									

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	ACCEP T P R I O R T O 1 O C T 2 0 2 1	BAL D U E A S O F 1 O C T	Calendar Year 2022													Calendar Year 2023													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Vehicle Manufacturing - Contractor																																	
	1	2018	ARMY	131	131	0																							0				
	1	2019	ARMY	197	67	130	16	14	12	16	16	16	16	16	8														0				
	1	2020	ARMY	131	0	131	-	-	-	-	-	-	-	-	8	12	16	16	16	16	14	12	16	16	5					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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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 10		<b>P-1 Line Item Number / Title:</b> 2944G80819 / Armored Multi Purpose Vehicle (AMPV)
		<b>Item Number / Title [DODIC]:</b> G80819 / Armored Multi Purpose Vehicle (AMPV)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2020	1-8-5 For 2020	MAX For 2020	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, PA	3	10	16	0	10	19	29	0	6	26	32

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

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



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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	718.527	285.320	127.301	144.387	4.100	148.487	164.269	283.913	286.396	303.480	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	718.527	285.320	127.301	144.387	4.100	148.487	164.269	283.913	286.396	303.480	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>718.527</b>	<b>285.320</b>	<b>127.301</b>	<b>144.387</b>	<b>4.100</b>	<b>148.487</b>	<b>164.269</b>	<b>283.913</b>	<b>286.396</b>	<b>303.480</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	-	-	-	534.767	-	549.952	619.883	952.728	1,084.833	1,124.000	Continuing	Continuing

**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 retrofit 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	285.320	127.301	144.387	4.100	148.487	152.619	279.731	286.396	303.480
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	11.650	4.182	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>285.320</b>	<b>127.301</b>	<b>144.387</b>	<b>4.100</b>	<b>148.487</b>	<b>164.269</b>	<b>283.913</b>	<b>286.396</b>	<b>303.480</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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	GM0100 / STRYKER MODIFICATION (Increase Performance)		A		- / 718.527	- / 285.320	- / 127.301	- / 144.387	- / 4.100	- / 148.487
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 718.527</b>	<b>- / 285.320</b>	<b>- / 127.301</b>	<b>- / 144.387</b>	<b>- / 4.100</b>	<b>- / 148.487</b>

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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	GM0100 / STRYKER MODIFICATION (Increase Performance)		A		- / 164.269	- / 283.913	- / 286.396	- / 303.480	Continuing	Continuing
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 164.269</b>	<b>- / 283.913</b>	<b>- / 286.396</b>	<b>- / 303.480</b>	<b>Continuing</b>	<b>Continuing</b>

\*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 2020 Base procurement dollars in the amount of \$144.387 million supports:

- The application of multiple fleet-wide modifications to address Fire Support Vehicle (FSV) Mission Equipment Package obsolescence; resolves reliability, capability and performance degradation, safety, and operational-related issues.
- Maintenance of the Stryker test fleet to ensure test assets are positioned to provide accurate, verifiable test results; continues retrofit planning and site management efforts to ensure procured modification kits are applied in an efficient and effective fashion; designs, modifies, and procures Stryker Training Aids, Devices, Simulators, and Simulations (TADSS) to ensure Stryker soldiers train with equipment that reflects the configuration and behavior of the current fielded vehicles.
- Interim Contractor Logistics Support (ICLS) for the 30mm Infantry Carrier Vehicle Dragoon (ICVD) to address a March 2015 United States Army Europe (USAREUR) Urgent Operational Needs Statement (ONS), and supports retrofit of Lethality Engineering Change Proposals (ECPs) (formerly ECP 2) lethality upgrades across the Stryker Family of Vehicles.
- Program management, engineering, and logistics support necessary to execute Stryker modifications to include Fleet Modifications, C4I Obsolescence and Next Generation items, 30mm ICVD ONS, and Lethality ECPs.

FY 2020 OCO procurement dollars in the amount of \$4.100 million supports COCOM requirement for unit equipment sets to deter potential adversaries and support European Deterrence Initiative (EDI). Funding supports Interim Contractor Logistics Support (ICLS) for the 30mm Infantry Carrier Vehicle Dragoon (ICVD) to address a March 2015 United States Army Europe (USAREUR) Urgent Operational Needs Statement (ONS).

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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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)	<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION

ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	718.527	285.320	127.301	144.387	4.100	148.487	164.269	283.913	286.396	303.480	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	718.527	285.320	127.301	144.387	4.100	148.487	164.269	283.913	286.396	303.480	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>718.527</b>	<b>285.320</b>	<b>127.301</b>	<b>144.387</b>	<b>4.100</b>	<b>148.487</b>	<b>164.269</b>	<b>283.913</b>	<b>286.396</b>	<b>303.480</b>	<b>Continuing</b>	<b>Continuing</b>
<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)	-	-	-	534.767	-	549.952	619.883	952.728	1,084.833	1,124.000	Continuing	Continuing

**Description:**

Modifications are needed to address safety and operational-related, and chassis, chemical detection, and Command, Control, Communications, Computer, and Intelligence (C4I) obsolescence issues within the Stryker fleet. Modifications to the Stryker Family of Vehicles (FoV) are also required to address mid and long-term deficiencies needed to achieve Mobile Gun System (MGS) Full Materiel Release (FMR), increase Double V Hull (DVH) survivability kit options, address existing network architecture vulnerabilities, and increase direct and suppressive firepower of United States Army Europe (USAREUR) assets to satisfy an urgent operational need. Additionally, to ensure Stryker soldiers continue to receive maintenance training consistent with Army prescribed Stryker training programs, the procurement of system-specific training devices is required to support the emerging 91S Stryker Vehicle Maintainer training course.

Mobile Gun System (MGS) Full Materiel Release (FMR): The MGS variant has been granted Conditional Materiel Release (CMR) and efforts to correct deficiencies required to obtain FMR are ongoing. Modifications to correct MGS deficiencies include: Main Gun improvements (Turret System Electronic Unit (TSEU)-13 and coax low ammo chute), generation II air conditioning system, Stryker Reactive Armor Tiles II (SRAT II) rear door improvement, commanders display with shock mounts and color situational awareness, Extended Low Rate Initial Production (ELRIP) Electronic Handle Electronic Trigger (EHET), hydraulic circuit check valve, engine cold start warm-up circuit, carousel improvement, rammer improvement, and open protected hatches. Installation of hardware is conducted by field modification teams, subject to vehicle/hardware availability.

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). Planned modifications include: Joint Chemical Agent Detector (JCAD), VRC-103 for the Commander's Vehicle (CV) variant, Energy Attenuating seats for Flat Bottom Hull (FBH) vehicles, Mortar Carrier Fire Control Computer, RMS6-L N2 Recuperator gauge, Improved Battery Box, Troop Heater improvements, Short Range Air Defense, In Vehicle Network (IVN), Mounted LRAS and refresh of the Fire Support Vehicle (FSV) Mission Equipment package (MEP). Modifications will be conducted by field modification teams, subject to vehicle/hardware availability.

C4I Obsolescence and Next Generation Items: Modifications are needed to address modifications and obsolescence issues with Command, Control, Communications, Computer, and Intelligence (C4I) components of the Stryker Family of Vehicles (FoV). Efforts include Handheld, Manpack, Small Form Fit Radio (HMS), Net Warrior upgrades, Blue-Force Tracking 2 (BFT-2), Warfighter Information Network-Tactical (WIN-T) Next Generation, managed switch projects, and the Stryker In-Vehicle Network 2 (IVN2). Also including software efforts for Cyber Security upgrades, Joint Battle Command-Platform (JBC-P), Universal Software Loader (USL) Phase II, Vehicle Software Updates, and improved embedded training.

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.

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)	<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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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 following training devices: Diagnostic Troubleshooting Trainers (DTTs), Anti-Tank Guided Missile Vehicle Part Task Trainers (PTTs), Full-Up Power Pack Part Task Trainers (FUPP PTTs), Mortar Carrier Part Task Trainers (MC PTTs) Mobile Gun System Hands-On Trainers (HOTs) and Remote Weapon Station (RWS) Hands-on Trainers.

Double V Hull (DVH) A1 Engineering Change Proposal (ECP) (formerly ECP 1): DVH A1 ECP incorporates a 910 amp alternator, in-vehicle network, 450 HP engine, and upgraded suspension that will restore vehicle space, weight, and power margin lost due to the addition of numerous kits integrated during prior deployment operations, and allow for the integration of the future Army Network. DVH A1 ECP conversion will be executed by a joint contractor and depot team in a production-like environment.

Lethality Engineering Change Proposals (ECPs) (formerly ECP 2): Lethality ECPs will integrate a medium caliber weapon, replace the current Remote Weapon Station to the Common Remotely Operated Weapon Station (CROWS) with under armor Javelin fire capability, improved optics and targeting systems, 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).

Double V Hull (DVH) Survivability and Safety Mods: DVH survivability and safety modifications address changes to the DVH vehicle configuration driven by MTO&E and Operational Needs Statements. Efforts included are Driver's Station Enhancement 2 (DSE2), rear ramp gap plate, and integration of Stryker Reactive Armor Tiles (SRAT) II. Modifications will be conducted by field modification teams at unit location, subject to vehicle/hardware availability.

30mm ICVD Operational Needs Statement (ONS) (Formerly Stryker ONS Lethality): Addresses a lethality capability gap identified by 2nd Cavalry Regiment (2CR) in a March 2015 Urgent Operational Needs Statement (ONS). The ONS Lethality upgrade incorporates a 30mm weapon system onto the Flat Bottom Hull (FBH) Infantry Carrier Vehicle (ICV).

Program Management Support: Program management, engineering, and logistics support necessary to execute Stryker modifications to include Fleet Modifications, C4I Obsolescence and Next Generation items, 30mm ICVD ONS, DVH A1 ECP, and Lethality ECPs.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	285.320	127.301	144.387	4.100	148.487	152.619	279.731	286.396	303.480
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	11.650	4.182	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>285.320</b>	<b>127.301</b>	<b>144.387</b>	<b>4.100</b>	<b>148.487</b>	<b>164.269</b>	<b>283.913</b>	<b>286.396</b>	<b>303.480</b>

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date: March 2019</b>				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20					<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)					<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>							
<b>Models of Systems Affected:</b> VARIOUS				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>						
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)		
<b>Procurement</b>														
<b>Modification Item 1 of 13: Mobile Gun System (MGS) Full Materiel Release(FMR)</b>														
A Kits														
Recurring														
Hardware	851 / 44.083	139 / 1.287	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<b>Subtotal: Recurring</b>	<b>851 / 44.083</b>	<b>139 / 1.287</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>Continuing</b>	<b>Continuing</b>	
Non-Recurring														
Fielding	- / 10.808	- / 2.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
Engineer Support	- / 10.158	- / 0.418	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
Test	- / 2.656	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<b>Subtotal: Non-Recurring</b>	<b>- / 23.622</b>	<b>- / 2.518</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Subtotal: Mobile Gun System (MGS) Full Materiel Release(FMR)</b>	<b>851 / 67.705</b>	<b>139 / 3.805</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Modification Item 2 of 13: Fleet Modifications</b>														
A Kits														
Recurring														
Fielding	- / 0.892	- / 1.857	- / -	- / -	- / -	- / -	- / 0.270	- / 0.130	- / 0.120	- / -	- / -	Continuing	Continuing	
Hardware	3,312 / 51.823	909 / 12.316	49 / 3.470	185 / 1.968	- / -	185 / 1.968	15 / 1.319	100 / 2.525	355 / 16.814	- / -	- / -	Continuing	Continuing	
<b>Subtotal: Recurring</b>	<b>3,312 / 52.715</b>	<b>909 / 14.173</b>	<b>49 / 3.470</b>	<b>185 / 1.968</b>	<b>- / -</b>	<b>185 / 1.968</b>	<b>15 / 1.589</b>	<b>100 / 2.655</b>	<b>355 / 16.934</b>	<b>- / -</b>	<b>- / -</b>	<b>Continuing</b>	<b>Continuing</b>	
Non-Recurring														
Engineer Support	- / 133.667	- / 4.377	- / 0.458	- / 0.125	- / -	- / 0.125	- / 0.374	- / -	- / -	- / -	- / -	Continuing	Continuing	
Test	- / 11.278	- / 2.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<b>Subtotal: Non-Recurring</b>	<b>- / 44.945</b>	<b>- / 6.877</b>	<b>- / 0.458</b>	<b>- / 0.125</b>	<b>- / -</b>	<b>- / 0.125</b>	<b>- / 0.374</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Subtotal: Fleet Modifications</b>	<b>3,312 / 97.660</b>	<b>909 / 21.050</b>	<b>49 / 3.928</b>	<b>185 / 2.093</b>	<b>- / -</b>	<b>185 / 2.093</b>	<b>15 / 1.963</b>	<b>100 / 2.655</b>	<b>355 / 16.934</b>	<b>- / -</b>	<b>- / -</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Modification Item 3 of 13: Video Display Electronic Terminal (VDET)</b>														
A Kits														
Recurring														
Hardware	664 / 19.521	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<b>Subtotal: Recurring</b>	<b>664 / 19.521</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>Continuing</b>	<b>Continuing</b>	
Non-Recurring														
Engineer Support	- / 0.043	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date: March 2019</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20					<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)					<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> VARIOUS				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Test	- / 0.136	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Non-Recurring</i>	- / 0.179	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Video Display Electronic Terminal (VDET)</i>	664 / 19.700	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	Continuing	Continuing	
<b>Modification Item 4 of 13: C4I Obsolescence and Next Generation Items</b>													
A Kits													
Recurring													
Hardware	1,264 / 17.240	- / 1.000	- / -	- / -	- / -	- / -	- / -	118 / 1.360	803 / 6.518	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	1,264 / 17.240	- / 1.000	- / -	- / -	- / -	- / -	- / -	118 / 1.360	803 / 6.518	- / -	Continuing	Continuing	
Non-Recurring													
Engineer Support	- / 26.368	- / 6.292	- / -	- / 10.701	- / -	- / 10.701	- / 9.659	- / -	- / -	- / -	Continuing	Continuing	
Test	- / 0.189	- / 4.468	- / -	- / 6.810	- / -	- / 6.810	- / 20.003	- / 15.398	- / 1.282	- / 0.527	Continuing	Continuing	
Fielding	- / 0.210	- / 0.207	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Non-Recurring</i>	- / 26.767	- / 10.967	- / -	- / 17.511	- / -	- / 17.511	- / 29.662	- / 15.398	- / 1.282	- / 0.527	Continuing	Continuing	
<i>Subtotal: C4I Obsolescence and Next Generation Items</i>	1,264 / 44.007	- / 11.967	- / -	- / 17.511	- / -	- / 17.511	- / 29.662	118 / 16.758	803 / 7.800	- / 0.527	Continuing	Continuing	
<b>Modification Item 5 of 13: Block Mod Retrofit</b>													
A Kits													
Recurring													
Hardware	2,336 / 34.697	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	2,336 / 34.697	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Block Mod Retrofit</i>	2,336 / 34.697	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	Continuing	Continuing	
<b>Modification Item 6 of 13: Test Fleet Maintenance</b>													
A Kits													
Recurring													
Labor (Contractor)	- / 26.474	- / 6.287	- / 6.376	- / 4.734	- / -	- / 4.734	- / 4.864	- / 4.966	- / 5.065	- / 5.167	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 26.474	- / 6.287	- / 6.376	- / 4.734	- / -	- / 4.734	- / 4.864	- / 4.966	- / 5.065	- / 5.167	Continuing	Continuing	
<i>Subtotal: Test Fleet Maintenance</i>	- / 26.474	- / 6.287	- / 6.376	- / 4.734	- / -	- / 4.734	- / 4.864	- / 4.966	- / 5.065	- / 5.167	Continuing	Continuing	
<b>Modification Item 7 of 13: Retrofit Planning and Site Management</b>													
A Kits													
Recurring													
Labor (Contractor)	- / 28.587	- / 8.228	- / 7.534	- / 8.628	- / -	- / 8.628	- / 8.973	- / 9.243	- / 9.519	- / 9.709	Continuing	Continuing	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>											<b>Date: March 2019</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20				<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)							<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> VARIOUS				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>					
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>To Complete</b>	<b>Total</b>	
	<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>	
<i>Subtotal: Recurring</i>	- / 28.587	- / 8.228	- / 7.534	- / 8.628	- / -	- / 8.628	- / 8.973	- / 9.243	- / 9.519	- / 9.709	Continuing	Continuing	
<i>Subtotal: Retrofit Planning and Site Management</i>	- / 28.587	- / 8.228	- / 7.534	- / 8.628	- / -	- / 8.628	- / 8.973	- / 9.243	- / 9.519	- / 9.709	Continuing	Continuing	
<b>Modification Item 8 of 13:</b> Training Aids, Devices, Simulators and Simulations													
A Kits													
Recurring													
Hardware	- / 0.283	358 / 12.040	5 / 12.677	448 / 11.212	- / -	448 / 11.212	376 / 13.688	387 / 18.216	407 / 25.162	353 / 9.172	Continuing	Continuing	
Life Cycle Management Plan	- / 35.186	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 35.469	358 / 12.040	5 / 12.677	448 / 11.212	- / -	448 / 11.212	376 / 13.688	387 / 18.216	407 / 25.162	353 / 9.172	Continuing	Continuing	
<i>Subtotal: Training Aids, Devices, Simulators and Simulations</i>	- / 35.469	358 / 12.040	5 / 12.677	448 / 11.212	- / -	448 / 11.212	376 / 13.688	387 / 18.216	407 / 25.162	353 / 9.172	Continuing	Continuing	
<b>Modification Item 9 of 13:</b> Lethality Engineering Change Proposals (ECPs)													
A Kits													
Recurring													
Hardware	- / -	- / -	270 / 70.472	270 / 68.652	- / -	270 / 68.652	270 / 80.594	293 / 184.863	264 / 167.506	270 / 204.047	Continuing	Continuing	
Fielding	- / -	- / -	- / -	- / 19.803	- / -	- / 19.803	- / 113.158	- / 121.363	- / 118.866	- / 119.734	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / -	- / -	270 / 70.472	270 / 78.455	- / -	270 / 78.455	270 / 93.752	293 / 206.226	264 / 186.372	270 / 223.781	Continuing	Continuing	
Non-Recurring													
Facilitization	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.481	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Non-Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.481	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Lethality Engineering Change Proposals (ECPs)</i>	- / -	- / -	270 / 70.472	270 / 78.455	- / -	270 / 78.455	270 / 93.752	293 / 211.707	264 / 186.372	270 / 223.781	Continuing	Continuing	
<b>Modification Item 10 of 13:</b> Double V Hull (DVH) Survivability and Safety Mods													
A Kits													
Recurring													
Hardware	1,224 / 11.727	- / -	- / -	- / -	- / -	- / -	- / -	10 / 3.705	171 / 20.682	244 / 44.650	Continuing	Continuing	
<i>Subtotal: Recurring</i>	1,224 / 11.727	- / -	- / -	- / -	- / -	- / -	- / -	10 / 3.705	171 / 20.682	244 / 44.650	Continuing	Continuing	
Non-Recurring													
Engineering Support	- / 0.230	- / -	- / -	- / -	- / -	- / -	- / 3.614	- / 8.651	- / 1.509	- / -	Continuing	Continuing	
Test	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.986	- / -	Continuing	Continuing	
<i>Subtotal: Non-Recurring</i>	- / 0.230	- / -	- / -	- / -	- / -	- / -	- / 3.614	- / 8.651	- / 6.495	- / -	Continuing	Continuing	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date: March 2019</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20					<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)					<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> VARIOUS				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Double V Hull (DVH) Survivability and Safety Mods</i>	1,224 / 11.957	- / -	- / -	- / 0.000	- / -	- / 0.000	- / 3.614	10 / 12.356	171 / 27.177	244 / 44.650	Continuing	Continuing	
<b>Modification Item 11 of 13:</b> 30mm ICVD Operational Needs Statement (ONS)													
A Kits													
Recurring													
Fielding	- / 143.522	- / 32.265	- / 18.251	- / 14.752	- / 14.100	- / 18.852	- / -	- / -	- / -	- / -	Continuing	Continuing	
Hardware	83 / 287.269	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	83 / 330.791	- / 32.265	- / 18.251	- / 14.752	- / 14.100	- / 18.852	- / -	- / -	- / -	- / -	Continuing	Continuing	
Non-Recurring													
Engineering Support	- / -	- / 6.242	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Non-Recurring</i>	- / -	- / 6.242	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: 30mm ICVD Operational Needs Statement (ONS)</i>	83 / 330.791	- / 38.507	- / 18.251	- / 14.752	- / 14.100	- / 18.852	- / -	- / -	- / -	- / -	Continuing	Continuing	
<b>Modification Item 12 of 13:</b> Program Management Support													
A Kits													
Recurring													
Program Management Support	- / 121.480	- / 9.668	- / 8.063	- / 17.002	- / -	- / 17.002	- / 17.753	- / 8.012	- / 8.367	- / 10.474	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 121.480	- / 9.668	- / 8.063	- / 17.002	- / -	- / 17.002	- / 17.753	- / 8.012	- / 8.367	- / 10.474	Continuing	Continuing	
<i>Subtotal: Program Management Support</i>	- / 121.480	- / 9.668	- / 8.063	- / 17.002	- / -	- / 17.002	- / 17.753	- / 8.012	- / 8.367	- / 10.474	Continuing	Continuing	
<b>Modification Item 13 of 13:</b> Other Stryker Lethality Modifications													
A Kits													
Non-Recurring													
Engineering Support	- / -	- / 173.768	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Non-Recurring</i>	- / -	- / 173.768	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Other Stryker Lethality Modifications</i>	- / -	- / 173.768	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	9,734 / 718.527	1,406 / 285.320	324 / 127.301	903 / 144.387	- / 14.100	903 / 148.487	661 / 164.269	908 / 283.913	2,000 / 286.396	867 / 303.480	Continuing	Continuing	
<b>Installation</b>													
<b>Modification Item 1 of 13:</b> Mobile Gun System (MGS) Full Materiel Release(FMR)	851 / 0.000	139 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	990 / 0.000	
<b>Modification Item 2 of 13:</b> Fleet Modifications	3,312 / 0.000	909 / 0.000	49 / 0.000	185 / 0.000	- / -	185 / 0.000	15 / 0.000	100 / 0.000	355 / 0.000	- / -	- / -	4,925 / 0.000	



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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)	<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> VARIOUS	<b>Modification Type:</b> Increase Performance	<b>Related RDT&amp;E PEs:</b>
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Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
<b>Modification Item 4 of 13:</b> C4I Obsolescence and Next Generation Items	1,264 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	118 / 0.000	803 / 0.000	- / -	- / -	2,185 / 0.000
<b>Modification Item 9 of 13:</b> Lethality Engineering Change Proposals (ECPs)	- / -	- / -	- / -	270 / 0.000	- / -	270 / 0.000	270 / 0.000	270 / 0.000	293 / 0.000	264 / 0.000	2,228 / 0.000	3,595 / 0.000
<b>Modification Item 10 of 13:</b> Double V Hull (DVH) Survivability and Safety Mods	1,224 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.000	171 / 0.000	244 / 0.000	- / -	1,649 / 0.000
<b>Modification Item 11 of 13:</b> 30mm ICVD Operational Needs Statement (ONS)	16 / 0.000	67 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	83 / 0.000
<i>Subtotal: Installation</i>	<i>6,667 / 0.000</i>	<i>1,115 / 0.000</i>	<i>49 / 0.000</i>	<i>455 / 0.000</i>	<i>- / -</i>	<i>455 / 0.000</i>	<i>285 / 0.000</i>	<i>498 / 0.000</i>	<i>1,622 / 0.000</i>	<i>508 / 0.000</i>	<i>2,228 / 0.000</i>	<i>13,427 / 0.000</i>
<b>Total</b>												
<b>Total Cost (Procurement + Support + Installation)</b>	<b>718.527</b>	<b>285.320</b>	<b>127.301</b>	<b>144.387</b>	<b>4.100</b>	<b>148.487</b>	<b>164.269</b>	<b>283.913</b>	<b>286.396</b>	<b>303.480</b>	<b>Continuing</b>	<b>Continuing</b>

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)	<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Modification Item 1 of 13:** Mobile Gun System (MGS) Full Materiel Release(FMR)

**Manufacturer Information**

Manufacturer Name: GM GDLS Defense Group, L.L.C Manufacturer Location: Sterling Heights, Michigan

Administrative Leadtime (in Months): 4 Production Leadtime (in Months): 3

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Feb 2018						
Delivery Dates	May 2018						

**Installation Information**

**Method of Implementation:** Installs conducted by contractor retrofit team.

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	851 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	851 / 0.000
FY 2018	0 / 0.000	139 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	139 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
<b>Total</b>	851 / 0.000	139 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	990 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	851	-	139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	851	-	-	70	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)	<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 13:** Fleet Modifications

**Manufacturer Information**

Manufacturer Name: GM GDLS Defense Group, LLC	Manufacturer Location: Sterling Heights, Michigan
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 3

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	
Delivery Dates	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023	

**Installation Information**

**Method of Implementation:** Prime contractor to produce hardware, installation by both Depot and contractor personnel

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	3,312 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3,312 / 0.000
FY 2018	0 / 0.000	909 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	909 / 0.000
FY 2019	0 / 0.000	- / -	49 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	49 / 0.000
FY 2020	0 / 0.000	- / -	- / -	185 / 0.000	- / -	185 / 0.000	- / -	- / -	- / -	- / -	- / -	185 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	15 / 0.000	- / -	- / -	- / -	- / -	15 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	100 / 0.000	- / -	- / -	- / -	100 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	355 / 0.000	- / -	- / -	355 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	3,312 / 0.000	909 / 0.000	49 / 0.000	185 / 0.000	- / -	185 / 0.000	15 / 0.000	100 / 0.000	355 / 0.000	- / -	- / -	4,925 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3,312	909	-	-	-	49	-	-	-	185	-	-	-	15	-	-	-	100	-	-	-	355	-	-	-	-	-	-	-	-	-	4,925
Out	3,312	-	303	303	303	-	16	16	17	-	61	62	62	-	5	5	5	-	33	33	34	-	118	118	119	-	-	-	-	-	4,925	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)			<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 3 of 13:</b> Video Display Electronic Terminal (VDET)							
<b>Manufacturer Information</b>							
Manufacturer Name: GM GDLS Defense Group, L.L.C				Manufacturer Location: Sterling Heights, Michigan			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Combination of Army Depot personnel and contractors at a government facility.					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)	<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 4 of 13:** C4I Obsolescence and Next Generation Items

**Manufacturer Information**

Manufacturer Name: GM GDLS Defense Group, L.L.C.	Manufacturer Location: Sterling Heights, Michigan
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 3

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates					Jan 2022	Jan 2023	
Delivery Dates					Apr 2022	Apr 2023	

**Installation Information**

**Method of Implementation:** Combination of Army Depot personnel and contractors at a government facility.

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	1,264 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,264 / 0.000
FY 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	118 / 0.000	- / -	- / -	- / -	118 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	803 / 0.000	- / -	- / -	803 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	1,264 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	118 / 0.000	803 / 0.000	- / -	- / -	2,185 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1,264	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118	-	-	-	-	803	-	-	-	-	-	-	-	-	-	-	-
Out	1,264	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59	59	-	-	401	402	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)			<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Modification Item 5 of 13:</b> Block Mod Retrofit							
<b>Manufacturer Information</b>							
Manufacturer Name: GM GDLS Defense Group, L.L.C.				Manufacturer Location: Sterling Heights, Michigan			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Combination of Army Depot personnel and contractors at a government facility.					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)			<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 6 of 13:</b> Test Fleet Maintenance							
<b>Manufacturer Information</b>							
Manufacturer Name: GM GDLS Defense Group, L.L.C				Manufacturer Location: Sterling Heights, Michigan			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024
Delivery Dates	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Maintenance is provided by contractor at government test sites.					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)			<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 7 of 13:</b> Retrofit Planning and Site Management							
<b>Manufacturer Information</b>							
Manufacturer Name: GM GDLS Defense Group, L.L.C				Manufacturer Location: Sterling Heights, Michigan			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Feb 2018	Feb 2019	Feb 2020	Feb 2021	Feb 2022	Feb 2023	Feb 2024
Delivery Dates	Feb 2018	Feb 2019	Feb 2020	Feb 2021	Feb 2022	Feb 2023	Feb 2024
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Prime Contractor located at contractor and Government owned facilities.					<b>Installation Quantity:</b> 0		



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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)			<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 8 of 13:</b> Training Aids, Devices, Simulators and Simulations							
<b>Manufacturer Information</b>							
Manufacturer Name: Rockwell Collins Simulation & Training				Manufacturer Location: Cedar Rapids, Iowa			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 7			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024
Delivery Dates	Aug 2018	Aug 2019	Aug 2020	Aug 2021	Aug 2022	Aug 2023	Aug 2024
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Contractor					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)	<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 9 of 13:** Lethality Engineering Change Proposals (ECPs)

**Manufacturer Information**

Manufacturer Name: TBD	Manufacturer Location: Sterling Heights, Michigan
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 9

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates		Jun 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024
Delivery Dates		Mar 2020	Oct 2020	Oct 2021	Oct 2022	Oct 2023	Oct 2024

**Installation Information**

**Method of Implementation:** Contractor and depot team

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	270 / 0.000	- / -	270 / 0.000	- / -	- / -	- / -	- / -	- / -	270 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	270 / 0.000	- / -	- / -	- / -	- / -	270 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	270 / 0.000	- / -	- / -	- / -	270 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	293 / 0.000	- / -	- / -	293 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	264 / 0.000	- / -	264 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	270 / 0.000	270 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,958 / 0.000	1,958 / 0.000
Total	0 / 0.000	- / -	- / -	270 / 0.000	- / -	270 / 0.000	270 / 0.000	270 / 0.000	293 / 0.000	264 / 0.000	2,228 / 0.000	3,595 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	270	-	-	-	270	-	-	270	-	-	-	293	-	-	-	264	-	-	-	270	-	-	1,958	3,595
Out	-	-	-	-	-	-	-	-	-	-	67	135	68	67	67	68	68	67	67	68	68	73	73	73	74	66	66	66	66	2,228	3,595

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>											<b>Date:</b> March 2019																					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20					<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)					<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION																						
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A											<b>MDAP/MAIS Code:</b>																					
<b>Modification Item 10 of 13:</b> Double V Hull (DVH) Survivability and Safety Mods																																
<b>Manufacturer Information</b>																																
Manufacturer Name: GM GDLS Defense Group, L.L.C.											Manufacturer Location: Sterling Heights, Michigan																					
Administrative Leadtime (in Months): 4											Production Leadtime (in Months): 4																					
<b>Dates</b>		<b>FY 2018</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021</b>			<b>FY 2022</b>		<b>FY 2023</b>		<b>FY 2024</b>														
Contract Dates											Feb 2022		Feb 2023		Feb 2024																	
Delivery Dates											Jun 2022		Jun 2023		Jun 2024																	
<b>Installation Information</b>																																
<b>Method of Implementation:</b> Prime Contractor																																
<b>Installation Cost</b>		<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>To Complete</b>	<b>Total</b>																			
		Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (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		1,224 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,224 / 0.000																			
FY 2018		0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000																			
FY 2019		0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000																			
FY 2020		0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000																			
FY 2021		0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000																			
FY 2022		0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.000	- / -	- / -	- / -	10 / 0.000																			
FY 2023		0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	171 / 0.000	- / -	- / -	171 / 0.000																			
FY 2024		0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	244 / 0.000	- / -	244 / 0.000																			
To Complete		0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000																			
<b>Total</b>		1,224 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.000	171 / 0.000	244 / 0.000	- / -	1,649 / 0.000																			
<b>Installation Schedule</b>																																
	<b>PYS</b>	<b>FY 2018</b>				<b>FY 2019</b>				<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>				<b>FY 2023</b>				<b>FY 2024</b>				<b>TC</b>	<b>Tot</b>	
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>			
In	1,224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	171	-	-	-	244	-	-	-	-
Out	1,224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	-	-	85	86	-	-	122	122	-	-	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)	<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 11 of 13:** 30mm ICVD Operational Needs Statement (ONS)

**Manufacturer Information**

Manufacturer Name: GM GDLS Defense Group, L.L.C.	Manufacturer Location: Sterling Heights, Michigan
Administrative Leadtime (in Months): 8	Production Leadtime (in Months): 16

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** Prime Contactor

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	16 / 0.000	67 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	83 / 0.000
FY 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	16 / 0.000	67 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	83 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83
Out	16	22	22	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)			<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Modification Item 12 of 13:</b> Program Management Support							
<b>Manufacturer Information</b>							
Manufacturer Name: PM SBCT and GM GDLS Defense Group, L.L.C.				Manufacturer Location: Warren and Sterling Heights, Michigan			
Administrative Leadtime ( <i>in Months</i> ): 2				Production Leadtime ( <i>in Months</i> ):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023
Delivery Dates	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Government and contractor personnel					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 0230GM0100 / Stryker (Mod)		<b>Modification Number / Title:</b> GM0100 / STRYKER MODIFICATION		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Modification Item 13 of 13:</b> Other Stryker Lethality Modifications							
<b>Manufacturer Information</b>							
Manufacturer Name: PM SBCT and GM GDLS Defense Group, L.L.C.				Manufacturer Location: Warren and Sterling Heights, Michigan			
Administrative Leadtime ( <i>in Months</i> ): 2				Production Leadtime ( <i>in Months</i> ):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Government and contractor personnel					<b>Installation Quantity:</b> 0		

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	233	207	82	152	-	152	154	148	148	142	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	830.604	633.000	265.290	550.000	-	550.000	550.000	550.000	550.000	550.000	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	830.604	633.000	265.290	550.000	-	550.000	550.000	550.000	550.000	550.000	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>830.604</b>	<b>633.000</b>	<b>265.290</b>	<b>550.000</b>	<b>-</b>	<b>550.000</b>	<b>550.000</b>	<b>550.000</b>	<b>550.000</b>	<b>550.000</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	3,564.824	3,057.971	3,235.244	3,618.421	-	3,618.421	3,571.429	3,716.216	3,716.216	3,873.239	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. On 23 March 2018, the Army Requirements Oversight Council approved the exchange of all remaining brigades from flat bottom hulls to the DVH. 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 had a successful production decision 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. 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 2020 Army **Date:** March 2019

**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 (ATGV) is the brigade's primary tank killing system. The ATGV reinforces the brigade's infantry battalion, reinforces the brigade reconnaissance squadron, and provides long-range direct fire.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	207	82	152	-	152	154	148	148	142
	Total Obligation Authority	633.000	265.290	550.000	-	550.000	550.000	550.000	550.000	550.000
<b>Total:</b> Secondary Distribution	<b>Quantity</b>	<b>207</b>	<b>82</b>	<b>152</b>	<b>-</b>	<b>152</b>	<b>154</b>	<b>148</b>	<b>148</b>	<b>142</b>
	<b>Total Obligation Authority</b>	<b>633.000</b>	<b>265.290</b>	<b>550.000</b>	<b>-</b>	<b>550.000</b>	<b>550.000</b>	<b>550.000</b>	<b>550.000</b>	<b>550.000</b>



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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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		233 / 830.604	207 / 633.000	82 / 265.290	152 / 550.000	- / -	152 / 550.000
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>233 / 830.604</b>	<b>207 / 633.000</b>	<b>82 / 265.290</b>	<b>152 / 550.000</b>	<b>- / -</b>	<b>152 / 550.000</b>

\*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 2020 Base procurement dollars in the amount of \$550.000 million support the exchange of 152 Stryker Flat Bottom vehicles configured as a Double V Hull (DVH) A1 Engineering Change Proposal (ECP) vehicles. DVH A1 ECP vehicles will provide 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.

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: 3,661

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 0363G85200 / Stryker Upgrade	<b>Item Number / Title [DODIC]:</b> G85200 / Stryker Upgrade

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
Procurement Quantity (Units in Each)	233	207	82	152	-	152
Gross/Weapon System Cost (\$ in Millions)	830.604	633.000	265.290	550.000	-	550.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	830.604	633.000	265.290	550.000	-	550.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>830.604</b>	<b>633.000</b>	<b>265.290</b>	<b>550.000</b>	<b>-</b>	<b>550.000</b>

*(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)	3,564.824	3,057.971	3,235.244	3,618.421	-	3,618.421

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

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2018</b>			<b>FY 2019</b>			<b>FY 2020 Base</b>			<b>FY 2020 OCO</b>			<b>FY 2020 Total</b>		
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
<b>Flyaway Cost</b>																		
<b>Recurring Cost</b>																		
DVH A1 ECP Infantry Carrier Vehicle <sup>(†)</sup>	2,908.930	128	372.343	2,514.157	134	336.897	2,617.102	49	128.238	2,888.848	99	285.996	-	-	-	2,888.848	99	285.996
DVH A1 ECP Anti-Tank Guided Missile Veh <sup>(†)</sup>	2,876.600	10	28.766	4,384.333	3	13.153	-	-	-	-	-	-	-	-	-	-	-	-
DVH A1 ECP Mortar Carrier Vehicle <sup>(†)</sup>	2,873.038	26	74.699	2,936.524	21	61.667	2,762.250	16	44.196	3,001.647	17	51.028	-	-	-	3,001.647	17	51.028
DVH A1 ECP Fire Support Vehicle <sup>(†)</sup>	2,936.077	13	38.169	3,109.250	8	24.874	-	-	-	-	-	-	-	-	-	-	-	-
DVH A1 ECP Engineer Squad Vehicle <sup>(†)</sup>	2,906.750	12	34.881	4,012.000	4	16.048	-	-	-	-	-	-	-	-	-	-	-	-
DVH A1 ECP Commander's Vehicle <sup>(†)</sup>	2,829.962	26	73.579	2,968.500	14	41.559	2,746.500	12	32.958	2,983.500	18	53.703	-	-	-	2,983.500	18	53.703
DVH A1 ECP Medical Evacuation Vehicle <sup>(†)</sup>	2,846.667	18	51.240	2,871.522	23	66.045	2,851.200	5	14.256	2,993.889	18	53.890	-	-	-	2,993.889	18	53.890
Program Management Support (Govt)	-	-	57.092	-	-	6.166	-	-	11.953	-	-	31.239	-	-	-	-	-	31.239
System Fielding Support	-	-	34.381	-	-	9.791	-	-	16.625	-	-	34.818	-	-	-	-	-	34.818

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>												<b>Date:</b> March 2019					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20						<b>P-1 Line Item Number / Title:</b> 0363G85200 / Stryker Upgrade						<b>Item Number / Title [DODIC]:</b> G85200 / Stryker Upgrade					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A									<b>MDAP/MAIS Code:</b>								

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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)	-	-	0.274	-	-	15.282	-	-	3.121	-	-	3.109	-	-	-	-	-	3.109
<i>Subtotal: Recurring Cost</i>	-	-	765.424	-	-	591.482	-	-	251.347	-	-	513.783	-	-	-	-	-	513.783
<i>Subtotal: Flyaway Cost</i>	-	-	<b>765.424</b>	-	-	<b>591.482</b>	-	-	<b>251.347</b>	-	-	<b>513.783</b>	-	-	-	-	-	<b>513.783</b>
<b>Package Fielding Cost</b>																		
<b>Non Recurring Cost</b>																		
Authorized Stockage List	-	-	49.468	-	-	19.291	-	-	10.004	-	-	19.309	-	-	-	-	-	19.309
<i>Subtotal: Non Recurring Cost</i>	-	-	49.468	-	-	19.291	-	-	10.004	-	-	19.309	-	-	-	-	-	19.309
<i>Subtotal: Package Fielding Cost</i>	-	-	<b>49.468</b>	-	-	<b>19.291</b>	-	-	<b>10.004</b>	-	-	<b>19.309</b>	-	-	-	-	-	<b>19.309</b>
<b>Support - Support Equipment Cost</b>																		
Maintenance Equipment	-	-	-	-	-	-	-	-	-	-	-	0.066	-	-	-	-	-	0.066
<i>Subtotal: Support - Support Equipment Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<b>0.066</b>	-	-	-	-	-	<b>0.066</b>
<b>Support - System Engineering Cost</b>																		
System Engineering	-	-	15.712	-	-	22.227	-	-	3.939	-	-	16.842	-	-	-	-	-	16.842
<i>Subtotal: Support - System Engineering Cost</i>	-	-	<b>15.712</b>	-	-	<b>22.227</b>	-	-	<b>3.939</b>	-	-	<b>16.842</b>	-	-	-	-	-	<b>16.842</b>
<b>Gross/Weapon System Cost</b>	<b>3,564.824</b>	<b>233</b>	<b>830.604</b>	<b>3,057.971</b>	<b>207</b>	<b>633.000</b>	<b>3,235.244</b>	<b>82</b>	<b>265.290</b>	<b>3,618.421</b>	<b>152</b>	<b>550.000</b>	-	-	-	<b>3,618.421</b>	<b>152</b>	<b>550.000</b>

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	207	82	152	-	152
	Total Obligation Authority	633.000	265.290	550.000	-	550.000
<b>Total:</b>	Quantity	<b>207</b>	<b>82</b>	<b>152</b>	-	<b>152</b>
<b>Secondary Distribution</b>	Total Obligation Authority	<b>633.000</b>	<b>265.290</b>	<b>550.000</b>	-	<b>550.000</b>

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

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Exhibit P-5a, Procurement History and Planning: PB 2020 Army								Date: March 2019				
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 <sup>(†)</sup>		2016	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Oct 2016	Sep 2017	64	2,442.030	Y		Sep 2015
DVH A1 ECP Infantry Carrier Vehicle <sup>(†)</sup>		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 <sup>(†)</sup>		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 <sup>(†)</sup>		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 <sup>(†)</sup>		2019	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Oct 2018	Oct 2020	49	2,617.102	Y		
DVH A1 ECP Infantry Carrier Vehicle <sup>(†)</sup>		2020	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Dec 2019	May 2021	99	2,888.848	Y		
DVH A1 ECP Anti-Tank Guided Missile Veh		2016	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Oct 2016	Apr 2018	5	3,015.000	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 Mortar Carrier Vehicle <sup>(†)</sup>		2016	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Oct 2016	Dec 2017	20	3,012.000	Y		
DVH A1 ECP Mortar Carrier Vehicle <sup>(†)</sup>		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 <sup>(†)</sup>		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 <sup>(†)</sup>		2019	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Oct 2018	Jan 2021	16	2,762.250	Y		
DVH A1 ECP Mortar Carrier Vehicle <sup>(†)</sup>		2020	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Dec 2019	Nov 2021	17	3,001.647	Y		
DVH A1 ECP Fire Support Vehicle		2016	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Oct 2016	Feb 2018	5	3,028.000	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 Engineer Squad Vehicle		2016	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Oct 2016	Nov 2017	5	2,944.000	Y		

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**Exhibit P-5a, Procurement History and Planning: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 0363G85200 / Stryker Upgrade	<b>Item Number / Title [DODIC]:</b> G85200 / Stryker Upgrade
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
DVH A1 ECP 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 Commander's Vehicle <sup>(†)</sup>		2016	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Oct 2016	Oct 2017	16	3,000.000	Y		
DVH A1 ECP Commander's Vehicle <sup>(†)</sup>		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 <sup>(†)</sup>		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 <sup>(†)</sup>		2019	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Oct 2018	Apr 2020	12	2,746.500	Y		
DVH A1 ECP Commander's Vehicle <sup>(†)</sup>		2020	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Dec 2019	May 2021	18	2,983.500	Y		
DVH A1 ECP Medical Evacuation Vehicle <sup>(†)</sup>		2016	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FFP	TACOM	Oct 2016	Mar 2018	18	2,911.440	Y		
DVH A1 ECP Medical Evacuation Vehicle <sup>(†)</sup>		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 <sup>(†)</sup>		2019	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Oct 2018	Jul 2020	5	2,851.200	N		
DVH A1 ECP Medical Evacuation Vehicle <sup>(†)</sup>		2020	GM GDLS Defense Group L.L.C. / Shelby Township	SS / FPIF	TACOM	Dec 2019	May 2021	18	2,993.889	Y		

<sup>(†)</sup> indicates the presence of a P-21

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**Exhibit P-21, Production Schedule: PB 2020 Army** **Date:** March 2019

**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 2017													Fiscal Year 2018													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017													Calendar Year 2018													
							O C T	N O V	D E C	J A N	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			
<b>DVH A1 ECP Infantry Carrier Vehicle</b>																																	
	1	2016	ARMY	64	0	64	A -	-	-	-	-	-	-	-	-	-	-	14	12	2	9	7	5	8	5	-	-	-	2		0		
	1	2017	ARMY	30	0	30																			A -	-	-	-	-	-	-	30	
	2	2017	ARMY	34	0	34											A -	-	-	-	-	-	-	-	-	-	-	-	2	5	27		
	1	2018	ARMY	134	0	134																						A -	-	-	-	134	
	1	2019	ARMY	49	0	49																									49		
	1	2020	ARMY	99	0	99																									99		
<b>DVH A1 ECP Mortar Carrier Vehicle</b>																																	
	3	2016	ARMY	20	0	20	A -	-	-	-	-	-	-	-	-	-	-	-	-	2	4	4	-	-	3	2	1	4		0			
	3	2017	ARMY	6	0	6											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	6		
	3	2018	ARMY	21	0	21																				A -	-	-	-	-	21		
	3	2019	ARMY	16	0	16																									16		
	3	2020	ARMY	17	0	17																									17		
<b>DVH A1 ECP Commander's Vehicle</b>																																	
	4	2016	ARMY	16	0	16	A -	-	-	-	-	-	-	-	-	-	-	4	7	-	-	-	-	-	-	-	3	2		0			
	4	2017	ARMY	10	0	10											A -	-	-	-	-	-	-	-	-	-	-	-	-	5	5		
	4	2018	ARMY	14	0	14																				A -	-	-	-	-	14		
	4	2019	ARMY	12	0	12																									12		
	4	2020	ARMY	18	0	18																									18		
<b>DVH A1 ECP Medical Evacuation Vehicle</b>																																	
	5	2016	ARMY	18	0	18	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	5	3	4	4		0			
	5	2018	ARMY	23	0	23																					A -	-	-	-	23		
	5	2019	ARMY	5	0	5																									5		
	5	2020	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 2020 Army** **Date:** March 2019

**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 2019													Fiscal Year 2020													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 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			
<b>DVH A1 ECP Infantry Carrier Vehicle</b>																																	
	1	2016	ARMY	64	64	0																							0				
	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			
	1	2019	ARMY	49	0	49	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49				
	1	2020	ARMY	99	0	99															A -	-	-	-	-	-	-	-	99				
<b>DVH A1 ECP Mortar Carrier Vehicle</b>																																	
	3	2016	ARMY	20	20	0																							0				
	3	2017	ARMY	6	0	6	-	-	-	3	2	1																	0				
	3	2018	ARMY	21	0	21	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	4	2	-	-	-	-	-	8				
	3	2019	ARMY	16	0	16	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16				
	3	2020	ARMY	17	0	17															A -	-	-	-	-	-	-	-	17				
<b>DVH A1 ECP Commander's Vehicle</b>																																	
	4	2016	ARMY	16	16	0																							0				
	4	2017	ARMY	10	5	5	4	1																					0				
	4	2018	ARMY	14	0	14	-	-	-	-	-	-	-	-	-	-	4	5	-	-	-	-	3	2					0				
	4	2019	ARMY	12	0	12	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	1	3	4	0				
	4	2020	ARMY	18	0	18															A -	-	-	-	-	-	-	-	18				
<b>DVH A1 ECP Medical Evacuation Vehicle</b>																																	
	5	2016	ARMY	18	18	0																							0				
	5	2018	ARMY	23	0	23	-	-	-	-	-	-	-	2	4	4	4	3	-	-	-	-	-	-	3	1	2		0				
	5	2019	ARMY	5	0	5	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	4				
	5	2020	ARMY	18	0	18															A -	-	-	-	-	-	-	-	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 2020 Army** **Date:** March 2019

**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 2021													Fiscal Year 2022													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 0	BAL D U E A S O F 1 O C T	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			
<b>DVH A1 ECP Infantry Carrier Vehicle</b>																																	
	1	2016	ARMY	64	64	0																							0				
	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	99	0	99	-	-	-	-	-	-	-	7	7	7	7	9	11	9	7	7	9	9	10				0				
<b>DVH A1 ECP Mortar Carrier Vehicle</b>																																	
	3	2016	ARMY	20	20	0																							0				
	3	2017	ARMY	6	6	0																							0				
	3	2018	ARMY	21	13	8	1	4	3																				0				
	3	2019	ARMY	16	0	16	-	-	-	4	3	4	5																0				
	3	2020	ARMY	17	0	17	-	-	-	-	-	-	-	-	-	-	-	-	2	4	4	4	3					0					
<b>DVH A1 ECP Commander's Vehicle</b>																																	
	4	2016	ARMY	16	16	0																							0				
	4	2017	ARMY	10	10	0																							0				
	4	2018	ARMY	14	14	0																							0				
	4	2019	ARMY	12	12	0																							0				
	4	2020	ARMY	18	0	18	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2						0				
<b>DVH A1 ECP Medical Evacuation Vehicle</b>																																	
	5	2016	ARMY	18	18	0																							0				
	5	2018	ARMY	23	23	0																							0				
	5	2019	ARMY	5	1	4	-	-	-	-	-	-	4																0				
	5	2020	ARMY	18	0	18	-	-	-	-	-	-	-	4	4	4	4	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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 0363G85200 / Stryker Upgrade	<b>Item Number / Title [DODIC]:</b> G85200 / Stryker Upgrade
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2020	1-8-5 For 2020	MAX For 2020	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	8	13	21	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

**Remarks:**  
Lead time for Stryker DVH A1 ECP variants is 11-20 months.\*\*\*\*\*

"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 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	5,380.268	585.851	515.424	638.781	-	638.781	715.310	487.603	60.919	55.913	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	5,380.268	585.851	515.424	638.781	-	638.781	715.310	487.603	60.919	55.913	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>5,380.268</b>	<b>585.851</b>	<b>515.424</b>	<b>638.781</b>	-	<b>638.781</b>	<b>715.310</b>	<b>487.603</b>	<b>60.919</b>	<b>55.913</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	69,873.610	8,136.819	4,368.000	4,990.477	-	4,990.477	4,933.172	5,604.632	-	-	Continuing	Continuing

**Description:**

Bradley Program (MOD) procures upgrades to the family of Bradley Fighting Vehicles. The Bradley Program (MOD) procures hardware for mods from the Engineering Change Proposal (ECP) program approved by the Army Acquisition Executive (AAE) in July 2011. There are two ECPs in this program. The Track and Suspension ECP (ECP 1) improves vehicle suspension with improved shocks, roadarms, torsion bars and extended life track. The A4 Mobility ECP improves the power train and electrical system to enable the Bradley Vehicle fleet to host inbound technologies from Army Programs of Record. 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 M2 conversions, safety upgrades, upgrades to the transmission, including but not limited to high priority improvements, modernization efforts to support directed requirements, survivability enhancements and obsolescence mitigation.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	-	-	-	-	-	-	-	-	-
Total Obligation Authority	585.851	495.424	638.781	-	638.781	715.310	487.603	60.919	55.913
ANG	-	-	-	-	-	-	-	-	-
Total Obligation Authority	-	20.000	-	-	-	-	-	-	-
<b>Total:</b>	-	-	-	-	-	-	-	-	-
<b>Secondary Distribution</b>	<b>585.851</b>	<b>515.424</b>	<b>638.781</b>	-	<b>638.781</b>	<b>715.310</b>	<b>487.603</b>	<b>60.919</b>	<b>55.913</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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		- / 5,380.268	- / 585.851	- / 515.424	- / 638.781	- / -	- / 638.781
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 5,380.268</b>	<b>- / 585.851</b>	<b>- / 515.424</b>	<b>- / 638.781</b>	<b>- / -</b>	<b>- / 638.781</b>

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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		- / 715.310	- / 487.603	- / 60.919	- / 55.913	Continuing	Continuing
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 715.310</b>	<b>- / 487.603</b>	<b>- / 60.919</b>	<b>- / 55.913</b>	<b>Continuing</b>	<b>Continuing</b>

\*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 2020 Base procurement dollars in the amount of \$638.781 million supports procurement of multiple modifications to the Bradley Family of Vehicles (FOV) including the following: procurement and installation of upgrade ECP 1 kits; procurement of components and A4 vehicles; procurement of Active Protection System (APS) kits; High Priority Improvements, Training Aids, Devices, Simulators and Simulations (TADSS) and program/engineering support. These upgrades improve the suspension (shocks, roadarms, torsion bars, etc.). Mobility is also improved through power train and electrical system modifications that will enable hosting of inbound technologies. Current projections indicate that the Bradley Infantry Fighting Vehicle will likely remain in the ABCT formation until the 2050s.

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

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)	<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	5,380.268	585.851	515.424	638.781	-	638.781	715.310	487.603	60.919	55.913	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	5,380.268	585.851	515.424	638.781	-	638.781	715.310	487.603	60.919	55.913	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>5,380.268</b>	<b>585.851</b>	<b>515.424</b>	<b>638.781</b>	-	<b>638.781</b>	<b>715.310</b>	<b>487.603</b>	<b>60.919</b>	<b>55.913</b>	<b>Continuing</b>	<b>Continuing</b>

*(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)	69,873.610	8,136.819	4,368.000	4,990.477	-	4,990.477	4,933.172	5,604.632	-	-	Continuing	Continuing

**Description:**

The Bradley Program (MOD) procures hardware for mods from the Engineering Change Proposal (ECP) program approved by the Army Acquisition Executive (AAE) in July 2011. There are two ECPs in this program. The Track and Suspension ECP (ECP 1) improves vehicle suspension with improved shocks, road arms, torsion bars and extended life track. The A4 (Mobility) ECP improves the power train and electrical system to enable the Bradley Vehicle fleet to host inbound technologies from Army Programs of Record. Funds training device obsolescence mitigation and high priority improvements to ensure safe and effective operation of the vehicle at full combat weight.

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, including short range air defense capabilities, and bring the vehicles into compliance with transportability and recovery requirements. Provides funding to maintain software versions and update integrated logistics products while in production.

MOD 3 (Training Equipment Devices) - Provides funding for personnel sustainment support and delivery of BFV Training Aids, Devices, Simulators and Simulations (TADSS). Funding supports ongoing effort to replace the Bradley Advanced Training System (BATS) with Conduct of Fire Trainer-Situational Awareness (COFT-SA) to mitigate obsolescence of the Bradley advanced training system, Table Top Trainers and Maintenance Trainers in support of the Bradley Vehicle systems. Also, system training devices are required to remain current with upgraded fleet configuration/capabilities. TADSS include Maintenance Trainers, Gunnery Trainer Tech Refresh, Desktop Trainer Lesson modifications, and Bradley Common Software Library modifications. Includes nonrecurring engineering for hardware and software changes, procurement cost of hardware associated with modifications to existing training devices and field installation at the unit.

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/Field Upgrades) - Provides funding for the components and applications related to fielding modifications to the Bradley Vehicle fleet. The Track and Suspension field modifications include track and suspension system upgrades that help to alleviate operational deficiencies with regards to mobility, crew protection and system survivability. Costs associated with kit installations are included in the funding for the prime hardware contracts.

MOD 7 (BFVS Mobility Modifications) - Provides funding for the components, applications, integration, and engineering support related to modifications of Bradley A3 and ODS-SA Vehicles. A4 improves the power train 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.

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification:** PB 2020 Army **Date:** March 2019

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

MOD 10 (Survivability Enhancements) - Provides funding for procurement and fielding of Survivability Enhancements to include Active Protective Systems (APS) and associated counter measures in support of the European Deterrence Initiative (EDI). Provides funding for the integration analysis, installation, engineering support, test and evaluation to support directed inbound technologies. Provides funding for the integration analysis, installation, engineering support, test and evaluation to support directed inbound technologies.

	Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	585.851	495.424	638.781	-	638.781	715.310	487.603	60.919	55.913
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	20.000	-	-	-	-	-	-	-
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>585.851</b>	<b>515.424</b>	<b>638.781</b>	<b>-</b>	<b>638.781</b>	<b>715.310</b>	<b>487.603</b>	<b>60.919</b>	<b>55.913</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date:</b> March 2019				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20					<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)					<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>							
<b>Models of Systems Affected:</b> M2 & M3 Bradley Vehicle Variants				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>						
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)		
<b>Procurement</b>														
<b>Modification Item 1 of 10: Bradley Reactive Armor</b>														
A Kits														
Recurring														
Kit Quantity	2,676 / 765.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2,676 / 765.100		
<b>Subtotal: Recurring</b>	2,676 / 765.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,676 / 765.100		
<b>Subtotal: Bradley Reactive Armor</b>	2,676 / 765.100	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	2,676 / 765.100		
<b>Modification Item 2 of 10: BFVS High Priority Improvements</b>														
A Kits														
Recurring														
CMED Driver Vision Upgrade	617 / 85.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	617 / 85.500		
Reset Mods	756 / 10.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	756 / 10.500		
INU/Talon	271 / 5.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	271 / 5.000		
Heat Abatement/Cargo Hatch	2,764 / 2.870	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2,764 / 2.870		
High Priority Mods	- / 182.022	- / 53.618	- / 54.333	- / 25.895	- / -	- / 25.895	- / 46.970	- / 40.721	- / -	- / -	- / 0.000	- / 1403.559		
Urban Survivability Mods	5,276 / 2,098.985	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	5,276 / 2,098.985		
<b>Subtotal: Recurring</b>	9,684 / 2,384.877	- / 53.618	- / 54.333	- / 25.895	- / -	- / 25.895	- / 46.970	- / 40.721	- / -	- / -	- / -	9,684 / 2,606.414		
<b>Subtotal: BFVS High Priority Improvements</b>	9,684 / 2,384.877	- / 53.618	- / 54.333	- / 25.895	- / -	- / 25.895	- / 46.970	- / 40.721	- / -	- / -	- / -	9,684 / 2,606.414		
<b>Modification Item 3 of 10: Training Equipment Devices</b>														
A Kits														
Recurring														
Training Equipment	- / 120.636	- / 3.324	- / 0.935	- / 3.962	- / -	- / 3.962	- / 6.434	- / 39.991	- / 4.433	- / 2.578	- / 0.000	- / 182.293		
<b>Subtotal: Recurring</b>	- / 120.636	- / 3.324	- / 0.935	- / 3.962	- / -	- / 3.962	- / 6.434	- / 39.991	- / 4.433	- / 2.578	- / -	- / 182.293		
<b>Subtotal: Training Equipment Devices</b>	- / 120.636	- / 3.324	- / 0.935	- / 3.962	- / -	- / 3.962	- / 6.434	- / 39.991	- / 4.433	- / 2.578	- / -	- / 182.293		
<b>Modification Item 4 of 10: ODS Situational Awareness</b>														
A Kits														
Recurring														
ODS Situational Awareness	770 / 1,199.553	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	770 / 1,199.553		

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date: March 2019</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20					<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)					<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> M2 & M3 Bradley Vehicle Variants				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 8.850	
ODS-SA VEHICLE VERSION IDENTIFICATION	- / 12.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 12.500	
<b>Subtotal: Recurring</b>	<b>770 / 1,220.903</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>770 / 1,220.903</b>	
<b>Subtotal: ODS Situational Awareness</b>	<b>770 / 1,220.903</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>770 / 1,220.903</b>	
<b>Modification Item 5 of 10: Program/Engineering Support</b>													
A Kits													
Recurring													
Government PM support	- / 141.377	- / 19.416	- / 18.593	- / 19.050	- / -	- / 19.050	- / 19.439	- / 19.844	- / 11.819	- / 7.879	Continuing	Continuing	
Contractor PM Support	- / 112.163	- / 5.226	- / 4.980	- / 5.127	- / -	- / 5.127	- / 5.232	- / 5.342	- / 3.181	- / 2.121	Continuing	Continuing	
<b>Subtotal: Recurring</b>	<b>- / 253.540</b>	<b>- / 24.642</b>	<b>- / 23.573</b>	<b>- / 24.177</b>	<b>- / -</b>	<b>- / 24.177</b>	<b>- / 24.671</b>	<b>- / 25.186</b>	<b>- / 15.000</b>	<b>- / 10.000</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Subtotal: Program/Engineering Support</b>	<b>- / 253.540</b>	<b>- / 24.642</b>	<b>- / 23.573</b>	<b>- / 24.177</b>	<b>- / -</b>	<b>- / 24.177</b>	<b>- / 24.671</b>	<b>- / 25.186</b>	<b>- / 15.000</b>	<b>- / 10.000</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Modification Item 6 of 10: BFVS ECP 1 Modification/Field Upgrades</b>													
A Kits													
Recurring													
BFVS ECP 1 Modification	1,356 / 200.304	345 / 67.637	345 / 64.357	432 / 81.466	- / -	432 / 81.466	433 / 78.333	433 / 81.263	- / -	- / -	- / 0.000	3,344 / 573.360	
BFVS Field Conversion M2 Common Stowage	- / 51.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 51.000	
BFVS Underbelly	- / -	- / -	- / -	276 / 40.000	- / -	276 / 40.000	276 / 40.000	- / -	- / -	- / -	- / 0.000	552 / 80.000	
<b>Subtotal: Recurring</b>	<b>1,356 / 251.304</b>	<b>345 / 67.637</b>	<b>345 / 64.357</b>	<b>708 / 121.466</b>	<b>- / -</b>	<b>708 / 121.466</b>	<b>709 / 118.333</b>	<b>433 / 81.263</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>3,896 / 704.360</b>	
<b>Subtotal: BFVS ECP 1 Modification/Field Upgrades</b>	<b>1,356 / 251.304</b>	<b>345 / 67.637</b>	<b>345 / 64.357</b>	<b>708 / 121.466</b>	<b>- / -</b>	<b>708 / 121.466</b>	<b>709 / 118.333</b>	<b>433 / 81.263</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>3,896 / 704.360</b>	
<b>Modification Item 7 of 10: BFVS A4 Modification</b>													
A Kits													
Recurring													
BFVS A4 Modification	50 / 157.887	152 / 406.630	91 / 277.226	128 / 423.281	- / -	128 / 423.281	145 / 473.902	87 / 300.442	- / 41.486	- / 43.335	Continuing	Continuing	
<b>Subtotal: Recurring</b>	<b>50 / 157.887</b>	<b>152 / 406.630</b>	<b>91 / 277.226</b>	<b>128 / 423.281</b>	<b>- / -</b>	<b>128 / 423.281</b>	<b>145 / 473.902</b>	<b>87 / 300.442</b>	<b>- / 41.486</b>	<b>- / 43.335</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Subtotal: BFVS A4 Modification</b>	<b>50 / 157.887</b>	<b>152 / 406.630</b>	<b>91 / 277.226</b>	<b>128 / 423.281</b>	<b>- / -</b>	<b>128 / 423.281</b>	<b>145 / 473.902</b>	<b>87 / 300.442</b>	<b>- / 41.486</b>	<b>- / 43.335</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Modification Item 8 of 10: Conversion to M2</b>													
A Kits													
Recurring													
Conversion M3-M2	195 / 132.245	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	195 / 132.245	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date:</b> March 2019			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20				<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)						<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> M2 & M3 Bradley Vehicle Variants			<b>Modification Type:</b> Increase Performance					<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Fielding	- / 5.942	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.942	
<i>Subtotal: Recurring</i>	195 / 138.187	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 138.187	
<i>Subtotal: Conversion to M2</i>	195 / 138.187	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	195 / 138.187	
<b>Modification Item 9 of 10:</b> Braking Safety/ Transmission Industrial Base													
A Kits													
Recurring													
Transmission	266 / 87.834	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	266 / 87.834	
<i>Subtotal: Recurring</i>	266 / 87.834	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	266 / 87.834	
<i>Subtotal: Braking Safety/Transmission Industrial Base</i>	266 / 87.834	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	266 / 87.834	
<b>Modification Item 10 of 10:</b> Survivability Enhancements													
A Kits													
Recurring													
Active Protection System (APS)	- / -	- / 4.500	- / 14.250	- / 6.000	- / -	- / 6.000	- / -	- / -	- / -	- / -	- / 0.000	- / 24.750	
<i>Subtotal: Recurring</i>	- / -	- / 4.500	- / 14.250	- / 6.000	- / -	- / 6.000	- / -	- / -	- / -	- / -	- / -	- / 24.750	
B Kits													
Recurring													
Active Protection System (APS)	- / -	28 / 25.500	88 / 80.750	38 / 34.000	- / -	38 / 34.000	- / -	- / -	- / -	- / -	- / 0.000	154 / 140.250	
<i>Subtotal: Recurring</i>	- / -	28 / 25.500	88 / 80.750	38 / 34.000	- / -	38 / 34.000	- / -	- / -	- / -	- / -	- / -	154 / 140.250	
<i>Subtotal: Survivability Enhancements</i>	- / -	28 / 30.000	88 / 95.000	38 / 40.000	- / -	38 / 40.000	- / -	- / -	- / -	- / -	- / -	154 / 165.000	
<i>Subtotal: Procurement, All Modification Items</i>	14,997 / 5,380.268	525 / 585.851	524 / 515.424	874 / 638.781	- / -	874 / 638.781	854 / 670.310	520 / 487.603	- / 60.919	- / 55.913	Continuing	Continuing	
<b>Installation</b>													
<b>Modification Item 6 of 10:</b> BFVS ECP 1 Modification/ Field Upgrades	1,356 / 0.000	345 / 0.000	345 / 0.000	432 / 0.000	- / -	432 / 0.000	433 / 0.000	433 / 0.000	- / -	- / -	- / -	3,344 / 0.000	
<b>Modification Item 7 of 10:</b> BFVS A4 Modification	- / -	- / -	- / -	68 / 0.000	- / -	68 / 0.000	134 / 0.000	46 / 0.000	106 / 0.000	138 / 0.000	161 / 0.000	653 / 0.000	
<b>Modification Item 8 of 10:</b> Conversion to M2	179 / 0.000	16 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 0.000	
<b>Modification Item 10 of 10:</b> Survivability Enhancements	- / -	- / -	- / -	- / -	- / -	- / -	154 / 45.000	- / -	- / -	- / -	- / -	154 / 45.000	
<i>Subtotal: Installation</i>	1,535 / 0.000	361 / 0.000	345 / 0.000	500 / 0.000	- / -	500 / 0.000	721 / 45.000	479 / 0.000	106 / 0.000	138 / 0.000	161 / 0.000	4,346 / 45.000	
<b>Total</b>													



**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification:** PB 2020 Army **Date:** March 2019

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

<b>Models of Systems Affected:</b> M2 & M3 Bradley Vehicle Variants	<b>Modification Type:</b> Increase Performance	<b>Related RDT&amp;E PEs:</b>
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Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
<b>Total Cost (Procurement + Support + Installation)</b>	5,380.268	585.851	515.424	638.781	-	638.781	715.310	487.603	60.919	55.913	Continuing	Continuing

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)			<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 1 of 10:</b> Bradley Reactive Armor							
<b>Manufacturer Information</b>							
Manufacturer Name: GDATP				Manufacturer Location: Burlington, VT			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Contractor					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)			<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 2 of 10:</b> BFVS High Priority Improvements							
<b>Manufacturer Information</b>							
Manufacturer Name: BAE				Manufacturer Location: YORK, PA			
Administrative Leadtime (in Months): 5				Production Leadtime (in Months): 12			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022		
Delivery Dates	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023		
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Contractor					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)			<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 3 of 10:</b> Training Equipment Devices							
<b>Manufacturer Information</b>							
Manufacturer Name: Oasis				Manufacturer Location: AUBURN HILLS, MI			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 12			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Feb 2018	Feb 2019	Feb 2019	Feb 2020	Feb 2021	Feb 2022	Feb 2023
Delivery Dates	Feb 2019	Feb 2020	Feb 2020	Feb 2021	Feb 2022	Feb 2023	Feb 2024
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Contractor					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)			<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 4 of 10:</b> ODS Situational Awareness							
<b>Manufacturer Information</b>							
Manufacturer Name: BAE				Manufacturer Location: YORK, PA			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Contractor					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)			<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 5 of 10:</b> Program/Engineering Support							
<b>Manufacturer Information</b>							
Manufacturer Name: N/A				Manufacturer Location: WARREN, MI			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 1			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023
Delivery Dates	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> x					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)	<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 6 of 10:** BFVS ECP 1 Modification/Field Upgrades

**Manufacturer Information**

Manufacturer Name: Loc Performance Products Inc./Other	Manufacturer Location: Various
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Administrative Leadtime (in Months):	Production Leadtime (in Months): 11
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Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Jun 2018	Jun 2019	Oct 2019	Oct 2020	Oct 2021		
Delivery Dates	Jun 2019	Jun 2020	Sep 2020	Sep 2021	Sep 2022		

**Installation Information**

**Method of Implementation:** Contractor

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	1,356 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,356 / 0.000
FY 2018	0 / 0.000	345 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	345 / 0.000
FY 2019	0 / 0.000	- / -	345 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	345 / 0.000
FY 2020	0 / 0.000	- / -	- / -	432 / 0.000	- / -	432 / 0.000	- / -	- / -	- / -	- / -	- / -	432 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	433 / 0.000	- / -	- / -	- / -	- / -	433 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	433 / 0.000	- / -	- / -	- / -	433 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
<b>Total</b>	1,356 / 0.000	345 / 0.000	345 / 0.000	432 / 0.000	- / -	432 / 0.000	433 / 0.000	433 / 0.000	- / -	- / -	- / -	3,344 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1,356	-	-	345	-	-	-	345	-	-	-	432	-	-	-	433	-	-	-	433	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,344
Out	1,049	77	77	77	76	87	86	86	86	87	86	86	86	108	108	108	108	108	109	108	108	108	109	108	108	-	-	-	-	-	-	-	-	-	3,344

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)	<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 7 of 10:** BFVS A4 Modification

**Manufacturer Information**

Manufacturer Name: BAE	Manufacturer Location: York, PA
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Administrative Leadtime (in Months): 11	Production Leadtime (in Months): 18
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Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Sep 2019	Sep 2020	Sep 2021	Sep 2022	Sep 2023		
Delivery Dates	Apr 2021	Apr 2022	Apr 2023	Apr 2024	Apr 2025		

**Installation Information**

**Method of Implementation:** Contractor

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	50 / 0.000	- / -	50 / 0.000	- / -	- / -	- / -	- / -	- / -	50 / 0.000
FY 2018	0 / 0.000	- / -	- / -	18 / 0.000	- / -	18 / 0.000	134 / 0.000	- / -	- / -	- / -	- / -	152 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	46 / 0.000	45 / 0.000	- / -	- / -	91 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	61 / 0.000	67 / 0.000	- / -	128 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	71 / 0.000	74 / 0.000	145 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	87 / 0.000	87 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
<b>Total</b>	0 / 0.000	- / -	- / -	68 / 0.000	- / -	68 / 0.000	134 / 0.000	46 / 0.000	106 / 0.000	138 / 0.000	161 / 0.000	653 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	18	25	23	39	15	41	39	-	-	22	24	21	24	30	31	32	35	35	36	36	38	32	28	27	653
Out	-	-	-	-	-	-	-	-	-	2	18	25	23	39	15	41	39	-	-	22	24	21	24	30	31	32	35	35	36	161	653



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)	<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 8 of 10:** Conversion to M2

**Manufacturer Information**

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

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** Contractor

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	179 / 0.000	16 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 0.000
FY 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	179 / 0.000	16 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	195 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	179	13	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 1678GZ2400 / Bradley Program (MOD)			<b>Modification Number / Title:</b> GZ2400 / Bradley Program MOD	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 9 of 10:</b> Braking Safety/Transmission Industrial Base							
<b>Manufacturer Information</b>							
Manufacturer Name: L3COM				Manufacturer Location: MUSKEGON, MI			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Contractor					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: PB 2020 Army** **Date:** March 2019

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

**Manufacturer Information**

Manufacturer Name: GD-OTS				Manufacturer Location: Isreal			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Jan 2020	Jan 2020	Jan 2020				
Delivery Dates	Jan 2021	Jan 2021	Jan 2021				

**Installation Information**

**Method of Implementation:** Contractor

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	28 / 8.181	- / -	- / -	- / -	- / -	28 / 8.181
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	88 / 25.714	- / -	- / -	- / -	- / -	88 / 25.714
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	38 / 11.105	- / -	- / -	- / -	- / -	38 / 11.105
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	- / -	- / -	- / -	- / -	- / -	- / -	154 / 45.000	- / -	- / -	- / -	- / -	154 / 45.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	52	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	2,070.263	49.665	26.482	25.756	-	25.756	7.100	7.900	8.700	8.400	-	2,204.266
Less PY Advance Procurement ( <i>\$ in Millions</i> )	16.321	-	-	-	-	-	-	-	-	-	-	16.321
Net Procurement (P-1) ( <i>\$ in Millions</i> )	2,053.942	49.665	26.482	25.756	-	25.756	7.100	7.900	8.700	8.400	-	2,187.945
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	16.321	-	-	-	-	-	-	-	-	-	-	16.321
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>2,070.263</b>	<b>49.665</b>	<b>26.482</b>	<b>25.756</b>	<b>-</b>	<b>25.756</b>	<b>7.100</b>	<b>7.900</b>	<b>8.700</b>	<b>8.400</b>	<b>-</b>	<b>2,204.266</b>
<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> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The M109 Family of Vehicles (FOV) program consists of the M109A6 Paladin Self-Propelled Howitzer (SPH) and the M992A2 Field Artillery Ammunition Supply Vehicle (FAASV) as well as M109A7 SPH and M992A3 Carrier, Ammunition, Tracked (CAT). The funding profile supports 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.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	22.895	15.889	13.334	-	13.334	3.692	4.108	4.524	4.368
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	26.770	10.593	12.422	-	12.422	3.408	3.792	4.176	4.032
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Obligation Authority</b>	<b>49.665</b>	<b>26.482</b>	<b>25.756</b>	<b>-</b>	<b>25.756</b>	<b>7.100</b>	<b>7.900</b>	<b>8.700</b>	<b>8.400</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 Family of Vehicles Modification Program (Increase Performance)		B		- / 2,070.263	- / 49.665	- / 26.482	- / 25.756	- / -	- / 25.756
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 2,070.263</b>	<b>- / 49.665</b>	<b>- / 26.482</b>	<b>- / 25.756</b>	<b>- / -</b>	<b>- / 25.756</b>

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 Family of Vehicles Modification Program (Increase Performance)		B		- / 7.100	- / 7.900	- / 8.700	- / 8.400	- / -	- / 2,204.266
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 7.100</b>	<b>- / 7.900</b>	<b>- / 8.700</b>	<b>- / 8.400</b>	<b>- / -</b>	<b>- / 2,204.266</b>

\*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 2020 base procurement funding in the amount of \$25.756 million supports M109 Family of Vehicles (FOV) Systems Technical Support (STS), Program Office requirements, and Paladin Breech Reliability fixes. 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.

The 2020 funding request was reduced by \$5.300 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.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,070.263	49.665	26.482	25.756	-	25.756	7.100	7.900	8.700	8.400	-	2,204.266
Less PY Advance Procurement (\$ in Millions)	16.321	-	-	-	-	-	-	-	-	-	-	16.321
Net Procurement (P-1) (\$ in Millions)	2,053.942	49.665	26.482	25.756	-	25.756	7.100	7.900	8.700	8.400	-	2,187.945
Plus CY Advance Procurement (\$ in Millions)	16.321	-	-	-	-	-	-	-	-	-	-	16.321
<b>Total Obligation Authority (\$ in Millions)</b>	<b>2,070.263</b>	<b>49.665</b>	<b>26.482</b>	<b>25.756</b>	<b>-</b>	<b>25.756</b>	<b>7.100</b>	<b>7.900</b>	<b>8.700</b>	<b>8.400</b>	<b>-</b>	<b>2,204.266</b>

*(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:**

Funding supports modifications to the Paladin/FAASV/CAT Stowage capabilities, Training Aids, Devices, Simulators and Simulations-Replacement (TADSS-R) kits/upgrades, Command, Control, Communication, Computer and Intelligence (C4I) upgrades for the planning, delivery and execution of lethal and non-lethal fires, M284 Breech reliability improvement procurement and their issue based on Modular Artillery Charge System (MACS), New Lightweight Bore Evacuators, Chief of Section and crew Situational Awareness (SA) and self-defense requirements, CREW IIA-Kit Hardware and Program Office Requirements. Cost associated with kit installations are included in the funding for the prime hardware contracts.

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.

Paladin Fire Control System [MOD 2]: PFCS combines the Paladin Digital Fire Control System-Replacement (PDFCS-R) and Dynamic Reference Unit Hybrid-Replacement (DRUH-R) into one modification kit. This subsystem provides the automated fire control for the M109 FOV gun system. It allows for the completion of the sensor to shooter fires thread during the conduct of a digital fire mission. PFCS reflects a cost reduction and streamlining effort to field the PDFCS-R and DRUH-R as a single modification to the vehicle. Costs associated with kit installations are included in the funding for the prime hardware contracts.

Chrome Tubes [MOD 3]: Completes the M109A6 Fleet requirements for M284 Cannon Tube Replacement. Removes the remaining temporary repaired M284 Cannon Tubes from the fielded M109A6 Fleet as a result of the December 2014 safety of use message.

Lightweight Bore Evacuator [MOD 4]: Lightweight Bore Evacuator (LWBE) provides decreased weight to aid in maintainability from the previous Advance Bore Evacuator (ABE). The LWBE weighs approximately 100 LBS while the ABE weighs 300 LBS and requires four men to move.

M109 FOV System Technical Support, Contr [MOD 5]: 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.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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Breech Mod (MACS) [MOD 6]: Paladin Breech reliability fixes, as they pertain to the impacts of MACS propellant on the gun system, is intended to improve the reliability of the current gun systems in fielded Fires Battalions. These fixes improve the firing chain in the breech system when firing High Zone MACS propellant charges in combat and training.

Paladin Stowage Improvements [MOD 7]: Funding supports safety related and other essential equipment stowage improvements to the M109A6 Paladin and M992A2 FAASV. The M109A6 stowage improvements include: M4 Rifle Brackets for the Drive and Crew Compartment, improved vertical and horizontal ammo stowage, Precision Guided Kit (PGK) stowage mod, Engine Grille Torsion Bar, and Rear Door Latch. The M992A2 stowage improvements includes: M4 Rifle Brackets, PGK stowage mod, Engine Grille Torsion Bar and improved vertical ammo stowage.

FSCATT Phase III Upgrade [MOD 8]: Training Aids, Devices, Simulators and Simulations (TADSS) supports the upgrade of Fire Support Combined Arms Tactical Trainers (FSCATT). Paladin FSCATT Phase III Upgrade re-establishes the closed-loop training capability for Paladin crews to train in conjunction with Forward Observer and Fire Direction Center personnel. This upgrade will integrate the Government-owned software SE Core Gateway to communicate with the Call For Fire Trainer (CFFT) using the Virtual Distributed Interactive Simulation (V-DIS) message protocol. The upgrade will incorporate the latest Paladin tactical software and Advanced Field Artillery Tactical Data System (AFATDS), which will require migration of all software to run on a new operating system.

CREW II A-Kit HW and Fielding [MOD 9]: To complete CREW DUKE v2 A-Kits fielding across the remainder of the M109 Family of Vehicles (FOV) fleet.

Breech (Phase II) HW and Fielding [MOD 13]: Paladin Breech reliability fixes, as they pertain to the impacts of MACS propellant on the gun system, is intended to improve the reliability of the current gun systems in fielded Fires Battalions. These fixes improve breech opening and closing when firing High Zone MACS propellant charges in combat and training.

Gun Mount Ballistic Shield (GMBS) Rotor Shield [MOD 14]: 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.

Int. Blast Mitigation Retrofit HW/Fielding (M109A7) [MOD 15]: Procures and installs improved floor mat and ammo restraint improvements in the event of an under blast event to reduce secondary projectile.

Alternative Transmission and Electrical Fan Integration [MOD 16]: Funding supports continued prototype analysis, procurement, and competition support activities required to maintain commonality with Bradley IFV.

Chief of Section protection (Increment I) HW and Fielding [MOD 17]: 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.

TARDEC Updated Grille Retrofit HW [MOD18]: Improved grille to provide greater (threshold 2) ballistic performance. This modification also address restrictions in power pack air intake due to current design restrictions and interface limits.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	22.895	15.889	13.334	-	13.334	3.692	4.108	4.524	4.368
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	26.770	10.593	12.422	-	12.422	3.408	3.792	4.176	4.032
<b>Total:</b> <b>Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>49.665</b>	<b>26.482</b>	<b>25.756</b>	-	<b>25.756</b>	<b>7.100</b>	<b>7.900</b>	<b>8.700</b>	<b>8.400</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> M109 Howitzer and M992 FAASV/CAT Vehicles	<b>Modification Type:</b> Increase Performance	<b>Related RDT&amp;E PEs:</b>
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Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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**

<b>Modification Item 1 of 17:</b> M109 FOV Program Office												
A Kits												
Recurring												
PM Support	- / 8.434	- / 4.831	- / 3.105	- / 0.958	- / -	- / 0.958	- / 0.978	- / 0.997	- / 1.017	- / 1.038	- / 0.000	- / 21.358
<i>Subtotal: Recurring</i>	- / 8.434	- / 4.831	- / 3.105	- / 0.958	- / -	- / 0.958	- / 0.978	- / 0.997	- / 1.017	- / 1.038	- / -	- / 21.358
<i>Subtotal: M109 FOV Program Office</i>	- / 8.434	- / 4.831	- / 3.105	- / 0.958	- / -	- / 0.958	- / 0.978	- / 0.997	- / 1.017	- / 1.038	- / -	- / 21.358

<b>Modification Item 2 of 17:</b> Paladin Fire Control System												
A Kits												
Recurring												
Hardware	239 / 101.051	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	239 / 101.051
<i>Subtotal: Recurring</i>	239 / 101.051	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	239 / 101.051
<i>Subtotal: Paladin Fire Control System</i>	239 / 101.051	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	239 / 101.051

<b>Modification Item 3 of 17:</b> Chrome Tubes												
A Kits												
Recurring												
Hardware	113 / 10.033	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	113 / 10.033
<i>Subtotal: Recurring</i>	113 / 10.033	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	113 / 10.033
<i>Subtotal: Chrome Tubes</i>	113 / 10.033	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	113 / 10.033

<b>Modification Item 4 of 17:</b> Lightweight Bore Evacuator												
A Kits												
Recurring												
Hardware	219 / 5.217	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	219 / 5.217
<i>Subtotal: Recurring</i>	219 / 5.217	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	219 / 5.217
<i>Subtotal: Lightweight Bore Evacuator</i>	219 / 5.217	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	219 / 5.217

<b>Modification Item 5 of 17:</b> M109 FOV System Technical Support - Contr												
A Kits												
Recurring												



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> M109 Howitzer and M992 FAASV/CAT Vehicles	<b>Modification Type:</b> Increase Performance	<b>Related RDT&amp;E PEs:</b>
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Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
STS	- / 66.871	- / 25.230	- / 13.517	- / 12.702	- / -	- / 12.702	- / -	- / -	- / -	- / -	- / 0.000	- / 118.320
<i>Subtotal: Recurring</i>	- / 66.871	- / 25.230	- / 13.517	- / 12.702	- / -	- / 12.702	- / -	- / -	- / -	- / -	- / -	- / 118.320
<i>Subtotal: M109 FOV System Technical Support - Contr</i>	- / 66.871	- / 25.230	- / 13.517	- / 12.702	- / -	- / 12.702	- / -	- / -	- / -	- / -	- / -	- / 118.320
<b>Modification Item 6 of 17: Breech Mod (MACS)</b>												
A Kits												
Recurring												
Hardware	144 / 11.231	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	144 / 11.231
<i>Subtotal: Recurring</i>	144 / 11.231	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	144 / 11.231
<i>Subtotal: Breech Mod (MACS)</i>	144 / 11.231	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	144 / 11.231
<b>Modification Item 7 of 17: Paladin Stowage Improvements (M109A6)</b>												
A Kits												
Recurring												
Stowage Improvements	449 / 11.771	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	449 / 11.771
<i>Subtotal: Recurring</i>	449 / 11.771	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	449 / 11.771
<i>Subtotal: Paladin Stowage Improvements (M109A6)</i>	449 / 11.771	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	449 / 11.771
<b>Modification Item 8 of 17: FSCATT Phase III Upgrade (M109A6)</b>												
A Kits												
Recurring												
Training Equipment Software	- / 5.204	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.204
<i>Subtotal: Recurring</i>	- / 5.204	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.204
<i>Subtotal: FSCATT Phase III Upgrade (M109A6)</i>	- / 5.204	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 5.204
<b>Modification Item 9 of 17: CREW II A-Kit HW and Fielding (M109A6)</b>												
A Kits												
Recurring												
Installation Kits	- / -	- / -	126 / 4.937	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	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	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	126 / 4.937

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> M109 Howitzer and M992 FAASV/CAT Vehicles	<b>Modification Type:</b> Increase Performance	<b>Related RDT&amp;E PEs:</b>
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Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
<b>Modification Item 10 of 17:</b> Prior Years Closed Mods													
A Kits													
Recurring													
Prior Closed Mods	- / 1,816.451	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1,816.451
<i>Subtotal: Recurring</i>	- / 1,816.451	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1,816.451	
<i>Subtotal: Prior Years Closed Mods</i>	- / 1,816.451	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 1,816.451	
<b>Modification Item 11 of 17:</b> Gun Tubes													
A Kits													
Recurring													
Hardware	- / 34.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 34.000
<i>Subtotal: Recurring</i>	- / 34.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 34.000	
<i>Subtotal: Gun Tubes</i>	- / 34.000	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 34.000	
<b>Modification Item 12 of 17:</b> Breech (Phase II) HW and Fielding													
A Kits													
Recurring													
Hardware	- / -	- / -	- / -	240 / 12.096	- / -	240 / 12.096	34 / 1.742	209 / 2.435	- / -	- / -	- / 0.000	483 / 16.273	
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	240 / 12.096	- / -	240 / 12.096	34 / 1.742	209 / 2.435	- / -	- / -	- / -	483 / 16.273	
Non-Recurring													
Hardware	- / -	- / 2.320	- / 1.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 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 / 12.096	34 / 1.742	209 / 2.435	- / -	- / -	- / -	483 / 20.093	
<b>Modification Item 13 of 17:</b> Gun Mount Ballistic Shield (GMBS) and Rotor Shield													
A Kits													
Non-Recurring													
Hardware	- / -	- / 0.068	- / 0.042	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 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	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.110	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> M109 Howitzer and M992 FAASV/CAT Vehicles	<b>Modification Type:</b> Increase Performance	<b>Related RDT&amp;E PEs:</b>
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Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
<b>Modification Item 14 of 17:</b> Int. Blast Mitigation Retrofit HW/Fielding(M109A7)												
A Kits												
Recurring												
Hardware	- / -	- / -	- / -	- / -	- / -	- / -	108 / 4.380	108 / 4.468	108 / 4.557	108 / 4.649	- / 0.000	432 / 18.054
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	108 / 4.380	108 / 4.468	108 / 4.557	108 / 4.649	- / -	432 / 18.054
Non-Recurring												
Hardware	- / -	- / 5.564	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.564
<i>Subtotal: Non-Recurring</i>	- / -	- / 5.564	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.564
<i>Subtotal: Int. Blast Mitigation Retrofit HW/Fielding(M109A7)</i>	- / -	- / 5.564	- / -	- / 0.000	- / -	- / 0.000	108 / 4.380	108 / 4.468	108 / 4.557	108 / 4.649	- / -	432 / 23.618
<b>Modification Item 15 of 17:</b> Alternative Trans and Electrical Fan Integration												
A Kits												
Non-Recurring												
Integration	- / -	- / 5.825	- / 3.381	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 9.206
<i>Subtotal: Non-Recurring</i>	- / -	- / 5.825	- / 3.381	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.206
<i>Subtotal: Alternative Trans and Electrical Fan Integration</i>	- / -	- / 5.825	- / 3.381	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 9.206
<b>Modification Item 16 of 17:</b> Chief of Section Protection (Inc. I) HW/Fielding												
A Kits												
Recurring												
Hardware	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	73 / 3.126	62 / 2.713	- / 0.000	135 / 5.839
<i>Subtotal: Recurring</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	73 / 3.126	62 / 2.713	- / -	135 / 5.839
Non-Recurring												
Hardware	- / -	- / 4.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 4.900
<i>Subtotal: Non-Recurring</i>	- / -	- / 4.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.900
<i>Subtotal: Chief of Section Protection (Inc. I) HW/Fielding</i>	- / -	- / 4.900	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	73 / 3.126	62 / 2.713	- / -	135 / 10.739

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date:</b> March 2019				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20					<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications					<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B							<b>MDAP/MAIS Code:</b>							
<b>Models of Systems Affected:</b> M109 Howitzer and M992 FAASV/CAT Vehicles				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>						
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)		
<b>Modification Item 17 of 17:</b> TARDEC Updated Grille Retrofit HW														
A Kits														
Non-Recurring														
Hardware	- / -	- / 0.927	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.927		
<i>Subtotal: Non-Recurring</i>	- / -	- / 0.927	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.927		
<i>Subtotal: TARDEC Updated Grille Retrofit HW</i>	- / -	- / 0.927	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.927		
<i>Subtotal: Procurement, All Modification Items</i>	1,164 / 2,070.263	- / 49.665	126 / 26.482	240 / 25.756	- / -	240 / 25.756	142 / 7.100	317 / 7.900	181 / 8.700	170 / 8.400	- / -	2,340 / 2,204.266		
<b>Installation</b>														
<b>Modification Item 2 of 17:</b> Paladin Fire Control System	204 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	204 / 0.000		
<b>Modification Item 3 of 17:</b> Chrome Tubes	113 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	113 / 0.000		
<b>Modification Item 4 of 17:</b> Lightweight Bore Evacuator	219 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	219 / 0.000		
<b>Modification Item 12 of 17:</b> Breech (Phase II) HW and Fielding	- / -	- / -	- / -	- / -	- / -	- / -	240 / 0.000	34 / 0.000	209 / 0.000	- / -	- / -	483 / 0.000		
<b>Modification Item 14 of 17:</b> Int. Blast Mitigation Retrofit HW/Fielding(M109A7)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	108 / 0.000	108 / 0.000	108 / 0.000	108 / 0.000	432 / 0.000		
<b>Modification Item 16 of 17:</b> Chief of Section Protection (Inc. I) HW/Fielding	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	73 / 0.000	62 / 0.000	135 / 0.000		
<i>Subtotal: Installation</i>	536 / 0.000	- / -	- / -	- / -	- / -	- / -	240 / 0.000	142 / 0.000	317 / 0.000	181 / 0.000	170 / 0.000	1,586 / 0.000		
<b>Total</b>														
<b>Total Cost (Procurement + Support + Installation)</b>	2,070.263	49.665	26.482	25.756	-	25.756	7.100	7.900	8.700	8.400	-	2,204.266		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications			<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 1 of 17:</b> M109 FOV Program Office							
<b>Manufacturer Information</b>							
Manufacturer Name: x				Manufacturer Location: x			
Administrative Leadtime ( <i>in Months</i> ):				Production Leadtime ( <i>in Months</i> ):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Oct 2017	Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023
Delivery Dates	Oct 2017	Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> N/A					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 17:** Paladin Fire Control System

**Manufacturer Information**

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

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** x

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	204 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	204 / 0.000
FY 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	204 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	204 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	204
Out	204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	204

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 3 of 17:** Chrome Tubes

**Manufacturer Information**

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

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** .

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	113 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	113 / 0.000
FY 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	113 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	113 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113
Out	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 4 of 17:** Lightweight Bore Evacuator

**Manufacturer Information**

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

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** .

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	219 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	219 / 0.000
FY 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	219 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	219 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	219	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	219	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army				<b>Date:</b> March 2019			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications			<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Modification Item 5 of 17:</b> M109 FOV System Technical Support - Contr							
<b>Manufacturer Information</b>							
Manufacturer Name: BAE				Manufacturer Location: York, PA			
Administrative Leadtime ( <i>in Months</i> ):				Production Leadtime ( <i>in Months</i> ):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Oct 2017	Oct 2018	Oct 2019				
Delivery Dates	Oct 2017	Oct 2018	Oct 2019				
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> N/A					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications			<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 6 of 17:</b> Breech Mod (MACS)							
<b>Manufacturer Information</b>							
Manufacturer Name: x				Manufacturer Location: x			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> .					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications			<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 7 of 17:</b> Paladin Stowage Improvements (M109A6)							
<b>Manufacturer Information</b>							
Manufacturer Name: x				Manufacturer Location: x			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Field Retrofit					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications			<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 8 of 17:</b> FSCATT Phase III Upgrade (M109A6)							
<b>Manufacturer Information</b>							
Manufacturer Name: X				Manufacturer Location: X			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> N/A					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications			<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 9 of 17:</b> CREW II A-Kit HW and Fielding (M109A6)							
<b>Manufacturer Information</b>							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime ( <i>in Months</i> ): 2				Production Leadtime ( <i>in Months</i> ): 12			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates		Dec 2018					
Delivery Dates		Dec 2019					
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> .					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications			<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 10 of 17:</b> Prior Years Closed Mods							
<b>Manufacturer Information</b>							
Manufacturer Name: x				Manufacturer Location: x			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> x					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications			<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 11 of 17:</b> Gun Tubes							
<b>Manufacturer Information</b>							
Manufacturer Name: .				Manufacturer Location: .			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> .					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 12 of 17:** 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 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021		
Delivery Dates	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022		

**Installation Information**

**Method of Implementation:** .

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	240 / 0.000	- / -	- / -	- / -	- / -	240 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	34 / 0.000	- / -	- / -	- / -	34 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	209 / 0.000	- / -	- / -	209 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	240 / 0.000	34 / 0.000	209 / 0.000	- / -	- / -	483 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	60	60	60	60	8	8	9	9	52	52	52	53	-	-	-	-	-	483
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	60	60	60	60	8	8	9	9	52	52	52	53	-	-	-	-	-	483



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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications			<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 13 of 17:</b> Gun Mount Ballistic Shield (GMBS) and Rotor Shield							
<b>Manufacturer Information</b>							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime ( <i>in Months</i> ): 2				Production Leadtime ( <i>in Months</i> ): 12			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Dec 2017	Dec 2018					
Delivery Dates	Dec 2018	Dec 2019					
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> .					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 14 of 17:** Int. 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 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Dec 2017			Dec 2020	Dec 2021	Dec 2022	Dec 2023
Delivery Dates	Dec 2018			Dec 2021	Dec 2022	Dec 2023	Dec 2024

**Installation Information**

**Method of Implementation:** .

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	108 / 0.000	- / -	- / -	- / -	108 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	108 / 0.000	- / -	- / -	108 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	108 / 0.000	- / -	108 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	108 / 0.000	108 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	108 / 0.000	108 / 0.000	108 / 0.000	108 / 0.000	432 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	27	27	27	27	27	27	27	27	27	27	27	108	432
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	27	27	27	27	27	27	27	27	27	27	27	108	432

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications			<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 15 of 17:</b> Alternative Trans and Electrical Fan Integration							
<b>Manufacturer Information</b>							
Manufacturer Name: SAPA Transmission, Inc.				Manufacturer Location: Shelby Twp, MI			
Administrative Leadtime ( <i>in Months</i> ): 2				Production Leadtime ( <i>in Months</i> ): 12			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Dec 2017	Dec 2018					
Delivery Dates	Dec 2018	Dec 2019					
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> .					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications	<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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**Modification Item 16 of 17:** 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 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Dec 2017					Dec 2022	Dec 2023
Delivery Dates	Dec 2018					Dec 2023	Dec 2024

**Installation Information**

**Method of Implementation:** .

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	73 / 0.000	- / -	73 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	62 / 0.000	62 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	73 / 0.000	62 / 0.000	135 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	18	19	62	135
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	18	18	19	62	135

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2072GA0400 / M109 FOV Modifications			<b>Modification Number / Title:</b> GA0400 / M109 Family of Vehicles Modification Program	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 17 of 17:</b> TARDEC Updated Grille Retrofit HW							
<b>Manufacturer Information</b>							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Dec 2018						
Delivery Dates	Dec 2018						
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> .					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	114	73	51	53	-	53	37	35	43	45	238	689
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,452.699	772.149	525.902	553.425	-	553.425	506.698	512.529	593.001	620.227	3,444.770	8,981.400
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,452.699	772.149	525.902	553.425	-	553.425	506.698	512.529	593.001	620.227	3,444.770	8,981.400
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>1,452.699</b>	<b>772.149</b>	<b>525.902</b>	<b>553.425</b>	<b>-</b>	<b>553.425</b>	<b>506.698</b>	<b>512.529</b>	<b>593.001</b>	<b>620.227</b>	<b>3,444.770</b>	<b>8,981.400</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	12,742.974	10,577.384	10,311.804	10,441.981	-	10,441.981	13,694.541	14,643.686	13,790.721	13,782.822	14,473.824	13,035.414

**Description:**

Paladin Integrated Management (PIM) is an ACAT 1C Acquisition Program. The program is intended to 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 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 FY 2050.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	55	32	42	-	42	23	21	26	22
	Total Obligation Authority	574.930	363.400	320.774	-	320.774	324.391	313.369	340.632	310.114
ANG	Quantity	18	19	11	-	11	14	14	17	23
	Total Obligation Authority	197.219	162.502	232.651	-	232.651	182.307	199.160	252.369	310.113
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>73</b>	<b>51</b>	<b>53</b>	<b>-</b>	<b>53</b>	<b>37</b>	<b>35</b>	<b>43</b>	<b>45</b>
	<b>Total Obligation Authority</b>	<b>772.149</b>	<b>525.902</b>	<b>553.425</b>	<b>-</b>	<b>553.425</b>	<b>506.698</b>	<b>512.529</b>	<b>593.001</b>	<b>620.227</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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		114 / 1,452.699	73 / 772.149	51 / 525.902	53 / 553.425	- / -	53 / 553.425
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>114 / 1,452.699</b>	<b>73 / 772.149</b>	<b>51 / 525.902</b>	<b>53 / 553.425</b>	<b>- / -</b>	<b>53 / 553.425</b>

\*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 2020 Base Procurement dollars in the amount of \$553.425 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 53 Sets. The unit cost represents cost per set (1 SPH and 1 CAT).

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**

<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 2073GZ0410 / Paladin Integrated Management (PIM)	<b>Item Number / Title [DODIC]:</b> GZ0410 / Paladin Integrated Management (PIM)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
Procurement Quantity (Units in Each)	114	73	51	53	-	53
Gross/Weapon System Cost (\$ in Millions)	1,452.699	772.149	525.902	553.425	-	553.425
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,452.699	772.149	525.902	553.425	-	553.425
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,452.699</b>	<b>772.149</b>	<b>525.902</b>	<b>553.425</b>	<b>-</b>	<b>553.425</b>

*(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)	12,742.974	10,577.384	10,311.804	10,441.981	-	10,441.981

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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)	-	-	29.124	-	-	31.653	-	-	18.495	-	-	20.006	-	-	-	-	-	20.006
SYSTEM TECHNICAL SUPPORT	-	-	162.127	-	-	71.523	-	-	60.418	-	-	61.720	-	-	-	-	-	61.720
SYS TEST & EVALUATION (CONTRACTOR)	-	-	33.751	-	-	-	-	-	1.617	-	-	2.199	-	-	-	-	-	2.199
SYS ENG/ PROG MGMT (GOVERNMENT)	-	-	95.306	-	-	15.704	-	-	21.102	-	-	21.454	-	-	-	-	-	21.454
SYS TEST & EVALUATION (GOVERNMENT)	-	-	7.088	-	-	3.150	-	-	6.155	-	-	2.623	-	-	-	-	-	2.623
TRANSPORTATION	-	-	0.850	-	-	-	-	-	0.712	-	-	0.718	-	-	-	-	-	0.718
<i>Subtotal: Recurring Cost</i>	-	-	<i>328.246</i>	-	-	<i>122.030</i>	-	-	<i>108.499</i>	-	-	<i>108.720</i>	-	-	-	-	-	<i>108.720</i>
Non Recurring Cost																		
PRODUCTION FACILITIZATION	-	-	42.669	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>42.669</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	<i>370.915</i>	-	-	<i>122.030</i>	-	-	<i>108.499</i>	-	-	<i>108.720</i>	-	-	-	-	-	<i>108.720</i>
Hardware Cost																		



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>													<b>Date:</b> March 2019					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20						<b>P-1 Line Item Number / Title:</b> 2073GZ0410 / Paladin Integrated Management (PIM)						<b>Item Number / Title [DODIC]:</b> GZ0410 / Paladin Integrated Management (PIM)						
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A										<b>MDAP/MAIS Code:</b>								

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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)
<b>Recurring Cost</b>																		
MANUFACTURING <sup>(†)</sup>	7,596.404	114	865.990	6,608.973	73	482.455	5,737.765	51	292.626	6,071.396	53	321.784	-	-	-	6,071.396	53	321.784
GOVERNMENT FURNISHED EQUIPMENT (GFE)	-	-	57.327	-	-	93.521	-	-	46.674	-	-	49.374	-	-	-	-	-	49.374
THEATRE PROVIDED EQUIPMENT	-	-	5.851	-	-	-	-	-	7.289	-	-	-	-	-	-	-	-	-
RECURRING PRODUCTION - OTHER	-	-	12.335	-	-	49.233	-	-	25.748	-	-	27.853	-	-	-	-	-	27.853
ENGINEERING CHANGE ORDERS	-	-	47.028	-	-	5.713	-	-	14.414	-	-	17.858	-	-	-	-	-	17.858
<i>Subtotal: Recurring Cost</i>	-	-	<b>988.531</b>	-	-	<b>630.922</b>	-	-	<b>386.751</b>	-	-	<b>416.869</b>	-	-	-	-	-	<b>416.869</b>
<i>Subtotal: Hardware Cost</i>	-	-	<b>988.531</b>	-	-	<b>630.922</b>	-	-	<b>386.751</b>	-	-	<b>416.869</b>	-	-	-	-	-	<b>416.869</b>
<b>Support - Contractor Logistics Support (CLS) Cost</b>																		
Oversight	-	-	23.428	-	-	-	-	-	2.479	-	-	1.571	-	-	-	-	-	1.571
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	<b>23.428</b>	-	-	-	-	-	<b>2.479</b>	-	-	<b>1.571</b>	-	-	-	-	-	<b>1.571</b>
<b>Support - Data Cost</b>																		
Technical Publications	-	-	20.288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Data Cost</i>	-	-	<b>20.288</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Support - Initial Spares and Repair Parts Cost</b>																		
Initial Spares and Repair Parts	-	-	10.494	-	-	6.562	-	-	7.439	-	-	7.526	-	-	-	-	-	7.526
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	<b>10.494</b>	-	-	<b>6.562</b>	-	-	<b>7.439</b>	-	-	<b>7.526</b>	-	-	-	-	-	<b>7.526</b>
<b>Support - Initial Support Equipment (ISE) Cost</b>																		
Support and Handling Equipment	-	-	5.375	-	-	-	-	-	2.389	-	-	2.341	-	-	-	-	-	2.341
<i>Subtotal: Support - Initial Support Equipment (ISE) Cost</i>	-	-	<b>5.375</b>	-	-	-	-	-	<b>2.389</b>	-	-	<b>2.341</b>	-	-	-	-	-	<b>2.341</b>
<b>Support - New Equipment Training (NET) Cost</b>																		
Equipment	-	-	11.370	-	-	-	-	-	14.028	-	-	13.963	-	-	-	-	-	13.963

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20		<b>P-1 Line Item Number / Title:</b> 2073GZ0410 / Paladin Integrated Management (PIM)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<b>Item Number / Title [DODIC]:</b> GZ0410 / Paladin Integrated Management (PIM)		

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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	-	-	-	-	-	14.028	-	-	13.963	-	-	-	-	-	13.963
<b>Support - Operational/Site Activation Cost</b>																		
Contractor Technical Support	-	-	0.320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Operational/Site Activation Cost</i>	-	-	0.320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Support - Support Equipment Cost</b>																		
Maintenance Equipment	-	-	7.377	-	-	9.491	-	-	4.317	-	-	2.435	-	-	-	-	-	2.435
<i>Subtotal: Support - Support Equipment Cost</i>	-	-	7.377	-	-	9.491	-	-	4.317	-	-	2.435	-	-	-	-	-	2.435
<b>Support - Training Cost</b>																		
Equipment	-	-	14.601	-	-	3.144	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Training Cost</i>	-	-	14.601	-	-	3.144	-	-	-	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	12,742.974	114	1,452.699	10,577.384	73	772.149	10,311.804	51	525.902	10,441.981	53	553.425	-	-	-	10,441.981	53	553.425

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	55	32	42	-	42
	Total Obligation Authority	574.930	363.400	320.774	-	320.774
ANG	Quantity	18	19	11	-	11
	Total Obligation Authority	197.219	162.502	232.651	-	232.651
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>73</b>	<b>51</b>	<b>53</b>	<b>-</b>	<b>53</b>
	<b>Total Obligation Authority</b>	<b>772.149</b>	<b>525.902</b>	<b>553.425</b>	<b>-</b>	<b>553.425</b>

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

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2020 Army								<b>Date:</b> March 2019				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 2073GZ0410 / Paladin Integrated Management (PIM)					<b>Item Number / Title [DODIC]:</b> GZ0410 / Paladin Integrated Management (PIM)				
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ K)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
MANUFACTURING <sup>(†)</sup>		2016	BAE / York	SS / FPIF	TACOM, Warren, MI	Oct 2015	Mar 2017	30	7,348.267	N		
MANUFACTURING <sup>(†)</sup>		2017	BAE / York	SS / FPIF	TACOM, Warren, MI	Dec 2017	Feb 2019	48	8,036.230	N		
MANUFACTURING <sup>(†)</sup>		2018	BAE / York	SS / FPIF	TACOM, Warren, MI	Aug 2018	Feb 2020	73	6,608.973	N		
MANUFACTURING <sup>(†)</sup>		2019	BAE / York	SS / FPIF	TACOM, Warren, MI	May 2019	Jun 2021	51	5,737.765	N		
MANUFACTURING <sup>(†)</sup>		2020	BAE / York	SS / FPIF	TACOM, Warren, MI	Jan 2020	Feb 2022	53	6,071.396	N		

<sup>(†)</sup> indicates the presence of a P-21

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army															<b>Date:</b> March 2019														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20										<b>P-1 Line Item Number / Title:</b> 2073GZ0410 / Paladin Integrated Management (PIM)										<b>Item Number / Title [DODIC]:</b> GZ0410 / Paladin Integrated Management (PIM)									

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2016												Fiscal Year 2017												BALANCE						
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017																
							O C T	N O V	D E C	J A N	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: 36																																			
1		2016	ARMY	30	0	30	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	2	3	2	3	2	13
1		2017	ARMY	48	0	48																												48	
1		2018	ARMY	73	0	73																												73	
1		2019	ARMY	51	0	51																												51	
1		2020	ARMY	53	0	53																												53	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army															<b>Date:</b> March 2019														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20										<b>P-1 Line Item Number / Title:</b> 2073GZ0410 / Paladin Integrated Management (PIM)										<b>Item Number / Title [DODIC]:</b> 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: 36																																			
1	2016	ARMY		30	17	13	2	3	2	3	3																							0	
1	2017	ARMY		48	0	48			A -	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	16		
1	2018	ARMY		73	0	73									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73			
1	2019	ARMY		51	0	51																							A -	-	-	-	51		
1	2020	ARMY		53	0	53																											53		
							O C T	N O V	D E C	J A N	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					

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army															<b>Date:</b> March 2019														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20										<b>P-1 Line Item Number / Title:</b> 2073GZ0410 / Paladin Integrated Management (PIM)										<b>Item Number / Title [DODIC]:</b> GZ0410 / Paladin Integrated Management (PIM)									

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					

MANUFACTURING																														
Prior Years Deliveries: 36																														
1	2016	ARMY	30	30	0																								0	
1	2017	ARMY	48	32	16	4	4	4	4																				0	
1	2018	ARMY	73	0	73	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	7								0	
1	2019	ARMY	51	0	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	4	35
1	2020	ARMY	53	0	53				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army															<b>Date:</b> March 2019														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20										<b>P-1 Line Item Number / Title:</b> 2073GZ0410 / Paladin Integrated Management (PIM)										<b>Item Number / Title [DODIC]:</b> GZ0410 / Paladin Integrated Management (PIM)									

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				
MANUFACTURING																																		
Prior Years Deliveries: 36																																		
1	2016	ARMY		30	30	0																												0
1	2017	ARMY		48	48	0																												0
1	2018	ARMY		73	73	0																												0
1	2019	ARMY		51	16	35	4	4	4	4	4	5	5	5																				0
1	2020	ARMY		53	0	53	-	-	-	-	4	4	4	5	4	5	4	5	4	5	4	5												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				

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20		<b>P-1 Line Item Number / Title:</b> 2073GZ0410 / Paladin Integrated Management (PIM)
		<b>Item Number / Title [DODIC]:</b> GZ0410 / Paladin Integrated Management (PIM)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2020	1-8-5 For 2020	MAX For 2020	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	6	10	0	2	14	16	0	3	25	28

**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).



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	835	36	38	-	16	16	-	-	-	8	-	933
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	2,491.824	153.378	152.854	-	80.146	80.146	-	-	20.000	60.000	-	2,958.202
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	2,491.824	153.378	152.854	-	80.146	80.146	-	-	20.000	60.000	-	2,958.202
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>2,491.824</b>	<b>153.378</b>	<b>152.854</b>	<b>-</b>	<b>80.146</b>	<b>80.146</b>	<b>-</b>	<b>-</b>	<b>20.000</b>	<b>60.000</b>	<b>-</b>	<b>2,958.202</b>

*(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> )	2,984.220	4,260.500	4,022.474	-	5,009.125	5,009.125	-	-	-	7,500.000	-	3,170.635

**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 FY2022 with a planned ECP, designated as the M88A3, for single vehicle recovery of the 80 ton Abrams tank. Production starting in FY2022.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	30	38	0	16	16	-	-	-	8
Total Obligation Authority	135.395	152.854	0.000	80.146	80.146	-	-	20.000	60.000
ANG	6	-	-	-	-	-	-	-	-
Total Obligation Authority	17.983	-	-	-	-	-	-	-	-
<b>Total:</b>	<b>36</b>	<b>38</b>	<b>0</b>	<b>16</b>	<b>16</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8</b>
<b>Secondary Distribution</b>	<b>153.378</b>	<b>152.854</b>	<b>-</b>	<b>80.146</b>	<b>80.146</b>	<b>-</b>	<b>-</b>	<b>20.000</b>	<b>60.000</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)	P-5a, P-21	A		835 / 2,491.824	36 / 153.378	38 / 152.854	- / -	16 / 80.146	16 / 80.146
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>835 / 2,491.824</b>	<b>36 / 153.378</b>	<b>38 / 152.854</b>	<b>- / -</b>	<b>16 / 80.146</b>	<b>16 / 80.146</b>

\*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 2020 Overseas Contingency Operations (OCO) procurement dollars in the amount of \$80.146 million supports COCOM requirement for unit equipment sets to deter potential adversaries and support European Deterrence Initiative (EDI). Funding will procure 16 vehicles with M88 Family of Vehicles Operational Modifications cut-in during production. The fielded M88A1 Medium Recovery Vehicles lack the necessary power, weight, and braking ability to safely support the recovery of the Abrams fleet. The M88A2 HERCULES vehicles will address these operational shortcomings. The increased winching and lifting capability accommodates all 70 ton Abrams variants. Without this increased capability, units must use two M88A1 Medium Recovery Vehicles to perform the necessary spectrum of recovery operations. The M88A2 procurement continues to support the supplier/vendor industrial base with fielding in FY2021.

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**

<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 3700GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)	<b>Item Number / Title [DODIC]:</b> GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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Resource Summary		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Procurement Quantity (Units in Each)		835	36	38	-	16	16
Gross/Weapon System Cost (\$ in Millions)		2,491.824	153.378	152.854	-	80.146	80.146
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)		2,491.824	153.378	152.854	-	80.146	80.146
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>		<b>2,491.824</b>	<b>153.378</b>	<b>152.854</b>	<b>-</b>	<b>80.146</b>	<b>80.146</b>

*(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)	2,984.220	4,260.500	4,022.474	-	5,009.125	5,009.125

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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 <sup>(t)</sup>	2,171.599	835	1,813.285	3,169.139	36	114.089	3,400.000	38	129.200	-	-	-	3,500.000	16	56.000	3,500.000	16	56.000
Vehicle Manufacturing - GFE	-	-	96.424	-	-	1.752	-	-	2.544	-	-	-	-	-	1.093	-	-	1.093
System Technical Support	-	-	296.166	-	-	22.381	-	-	2.618	-	-	-	-	-	5.620	-	-	5.620
Program Management	-	-	85.943	-	-	7.088	-	-	6.229	-	-	-	-	-	6.353	-	-	6.353
Transportation	-	-	13.725	-	-	0.357	-	-	0.518	-	-	-	-	-	1.533	-	-	1.533
Fielding (TPF & NET)	-	-	91.141	-	-	1.176	-	-	5.263	-	-	-	-	-	6.764	-	-	6.764
Test (Production Verification Testing)	-	-	23.796	-	-	0.632	-	-	-	-	-	-	-	-	-	-	-	-
M88A1 Hull Reclamation	-	-	71.344	-	-	5.903	-	-	6.482	-	-	-	-	-	2.783	-	-	2.783
<i>Subtotal: Recurring Cost</i>	-	-	2,491.824	-	-	153.378	-	-	152.854	-	-	0.000	-	-	80.146	-	-	80.146
<i>Subtotal: Flyaway Cost</i>	-	-	2,491.824	-	-	153.378	-	-	152.854	-	-	0.000	-	-	80.146	-	-	80.146
<b>Gross/Weapon System Cost</b>	<b>2,984.220</b>	<b>835</b>	<b>2,491.824</b>	<b>4,260.500</b>	<b>36</b>	<b>153.378</b>	<b>4,022.474</b>	<b>38</b>	<b>152.854</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,009.125</b>	<b>16</b>	<b>80.146</b>	<b>5,009.125</b>	<b>16</b>	<b>80.146</b>

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	30	38	0	16	16

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<b>Exhibit P-5, Cost Analysis:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 3700GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)	<b>Item Number / Title [DODIC]:</b> GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)

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

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
	Total Obligation Authority	135.395	152.854	0.000	80.146	80.146
ANG	Quantity	6	-	-	-	-
	Total Obligation Authority	17.983	-	-	-	-
<b>Total:</b>	<b>Quantity</b>	<b>36</b>	<b>38</b>	<b>-</b>	<b>16</b>	<b>16</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>153.378</b>	<b>152.854</b>	<b>-</b>	<b>80.146</b>	<b>80.146</b>

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

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2020 Army							<b>Date:</b> March 2019				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 3700GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)				<b>Item Number / Title [DODIC]:</b> GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Vehicle Manufacturing - Contractor <sup>(†)</sup>		2018	BAE Systems / York PA	SS / FFP	TACOM	Jul 2018	Oct 2019	36	3,169.139	Y		
Vehicle Manufacturing - Contractor <sup>(†)</sup>		2019	BAE Systems / York PA	SS / FFP	TACOM	Jul 2019	Feb 2021	38	3,400.000	Y		
Vehicle Manufacturing - Contractor <sup>(†)</sup>	✓	2020	BAE Systems / York PA	SS / FFP	TACOM	Oct 2019	Mar 2022	16	3,500.000	Y		

<sup>(†)</sup> indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2020 Army																								Date: March 2019									
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20												P-1 Line Item Number / Title: 3700GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)												Item Number / Title [DODIC]: GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)									
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			
Vehicle Manufacturing - Contractor																																	
Prior Years Deliveries: 835																																	
	1	2018	ARMY	36	0	36																								36			
	1	2019	ARMY	38	0	38																								38			
✓	1	2020	ARMY	16	0	16																								16			

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army																							<b>Date:</b> March 2019										
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20										<b>P-1 Line Item Number / Title:</b> 3700GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)										<b>Item Number / Title [DODIC]:</b> GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)													
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			
Vehicle Manufacturing - Contractor																																	
Prior Years Deliveries: 835																																	
	1	2018	ARMY	36	0	36	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3								0				
	1	2019	ARMY	38	0	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	14				
✓	1	2020	ARMY	16	0	16	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16					
							O C T	N O V	D E C	J A N	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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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army															<b>Date:</b> March 2019														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20										<b>P-1 Line Item Number / Title:</b> 3700GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)										<b>Item Number / Title [DODIC]:</b> GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)									

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				
Vehicle Manufacturing - Contractor																																			
Prior Years Deliveries: 835																																			
	1	2018	ARMY	36	36	0																													0
	1	2019	ARMY	38	24	14	3	3	3	3	2																								0
✓	1	2020	ARMY	16	0	16	-	-	-	-	-	2	2	2	2	2	2	2																	0
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					



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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20		<b>P-1 Line Item Number / Title:</b> 3700GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)
		<b>Item Number / Title [DODIC]:</b> GA0570 / Improved Recovery Vehicle (M88A2 HERCULES)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2020	1-8-5 For 2020	MAX For 2020	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	BAE Systems - York PA	1	2	4	0	12	18	30	0	0	29	29

"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 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	349.975	4.736	2.120	2.821	-	2.821	5.080	36.819	57.230	16.569	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	349.975	4.736	2.120	2.821	-	2.821	5.080	36.819	57.230	16.569	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>349.975</b>	<b>4.736</b>	<b>2.120</b>	<b>2.821</b>	-	<b>2.821</b>	<b>5.080</b>	<b>36.819</b>	<b>57.230</b>	<b>16.569</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	3,365.144	2,368.000	353.333	313.444	-	313.444	298.824	549.537	443.643	571.345	Continuing	Continuing

**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 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.736	2.120	2.821	-	2.821	5.080	36.819	57.230	16.569
<b>Total:</b> <b>Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>4.736</b>	<b>2.120</b>	<b>2.821</b>	-	<b>2.821</b>	<b>5.080</b>	<b>36.819</b>	<b>57.230</b>	<b>16.569</b>

**Justification:**

FY 2020 Base procurement dollars in the amount of \$2.821 million supports:

- The Abrams A2 Heavy Duty Suspension upgrade to the 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 should increase the suspension mean time between failures, increasing system availability.
- Full Width Mine Plow Tine Tip Modification to the ABV. The upgrade consists of replacing the existing tines on each blade section with a tine adaptor and replaceable tip. The new tip will be held in place by a roll pin. The modification provides increased capability by strengthening the tine to resist bending in harder soils and the replaceable tip significantly reduces mean time to repair when tips become worn out. The upgrade will extend the service life of the plow, reduce down time and increase overall availability of the ABV.

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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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles		<b>P-1 Line Item Number / Title:</b> 4520GZ3250 / Assault Bridge (Mod)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	113	13	12	6	-	6	4	5	3	1	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	437.601	64.221	62.407	31.697	-	31.697	25.207	29.196	23.067	1.172	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	437.601	64.221	62.407	31.697	-	31.697	25.207	29.196	23.067	1.172	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>437.601</b>	<b>64.221</b>	<b>62.407</b>	<b>31.697</b>	<b>-</b>	<b>31.697</b>	<b>25.207</b>	<b>29.196</b>	<b>23.067</b>	<b>1.172</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	3,872.575	4,940.077	5,200.583	5,282.833	-	5,282.833	6,301.750	5,839.200	7,689.000	1,172.000	Continuing	Continuing

**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 the 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 (MICLC) systems), interchangeable Engineer Breaching System hardware consisting of a Full Width Mine Plow and a Combat Dozer Blade, a Lane Marking System to automatically mark a cleared path behind the ABV, and an integrated day/night vision system. The ABV is fabricated at Anniston Army Depot.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	6	6	6	-	6	4	5	3	1
Quantity									
Total Obligation Authority	29.640	31.204	31.697	-	31.697	25.207	29.196	23.067	1.172
ANG	7	6	-	-	-	-	-	-	-
Quantity									
Total Obligation Authority	34.581	31.203	-	-	-	-	-	-	-
<b>Total: Secondary Distribution</b>	<b>13</b>	<b>12</b>	<b>6</b>	<b>-</b>	<b>6</b>	<b>4</b>	<b>5</b>	<b>3</b>	<b>1</b>
<b>Quantity</b>									
<b>Total Obligation Authority</b>	<b>64.221</b>	<b>62.407</b>	<b>31.697</b>	<b>-</b>	<b>31.697</b>	<b>25.207</b>	<b>29.196</b>	<b>23.067</b>	<b>1.172</b>

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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		113 / 437.601	13 / 64.221	12 / 62.407	6 / 31.697	- / -	6 / 31.697
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>113 / 437.601</b>	<b>13 / 64.221</b>	<b>12 / 62.407</b>	<b>6 / 31.697</b>	<b>- / -</b>	<b>6 / 31.697</b>

\*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 2020 Base procurement dollars in the amount of \$31.697 million supports the procurement of 6 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.

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) ABV: 141

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>											<b>Date:</b> March 2019				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20						<b>P-1 Line Item Number / Title:</b> 4872G82925 / Assault Breacher Vehicle					<b>Item Number / Title [DODIC]:</b> G82925 / Assault Breacher Vehicle				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A						<b>MDAP/MAIS Code:</b>									
Resource Summary				Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	
Procurement Quantity (Units in Each)				113		13		12		6		-		6	
Gross/Weapon System Cost (\$ in Millions)				437.601		64.221		62.407		31.697		-		31.697	
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
Net Procurement (P-1) (\$ in Millions)				437.601		64.221		62.407		31.697		-		31.697	
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
<b>Total Obligation Authority (\$ in Millions)</b>				<b>437.601</b>		<b>64.221</b>		<b>62.407</b>		<b>31.697</b>		<b>-</b>		<b>31.697</b>	
<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)				3,872.575		4,940.077		5,200.583		5,282.833		-		5,282.833	

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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 <sup>(†)</sup>	2,320.105	105	243.611	2,737.308	13	35.585	2,790.917	12	33.491	2,846.167	6	17.077	-	-	-	2,846.167	6	17.077
1. Full Width Mine Plow	344.057	70	24.084	392.000	8	3.136	399.625	8	3.197	407.500	4	1.630	-	-	-	407.500	4	1.630
2. Combat Dozer Blade	203.829	35	7.134	220.000	4	0.880	224.250	4	0.897	229.000	2	0.458	-	-	-	229.000	2	0.458
3. High Lift Adapter	199.067	105	20.902	230.000	13	2.990	234.500	12	2.814	239.167	6	1.435	-	-	-	239.167	6	1.435
4. Lane Marking System	176.943	105	18.579	226.000	13	2.938	230.417	12	2.765	235.000	6	1.410	-	-	-	235.000	6	1.410
5. Linear Demolition Control System	132.895	105	13.954	283.000	13	3.679	288.583	12	3.463	294.333	6	1.766	-	-	-	294.333	6	1.766
6. Integrated Vision System	384.095	105	40.330	510.000	13	6.630	520.000	12	6.240	530.333	6	3.182	-	-	-	530.333	6	3.182
7. Hull Integration Kit	17.067	105	1.792	15.000	13	0.195	15.333	12	0.184	15.667	6	0.094	-	-	-	15.667	6	0.094
8. Embedded Diagnostic Kit	60.000	105	6.300	44.000	13	0.572	44.833	12	0.538	45.667	6	0.274	-	-	-	45.667	6	0.274
9. Spares	250.000	18	4.500	570.000	2	1.140	581.000	2	1.162	593.000	1	0.593	-	-	-	593.000	1	0.593
System Engineering/ Program Management	-	-	23.928	-	-	3.604	-	-	3.176	-	-	3.218	-	-	-	-	-	3.218
Fielding	-	-	18.962	-	-	1.500	-	-	1.500	-	-	0.300	-	-	-	-	-	0.300
Data	-	-	7.550	-	-	0.772	-	-	-	-	-	-	-	-	-	-	-	-
First Destination Transportation - FDT	-	-	-	-	-	0.600	-	-	0.600	-	-	0.260	-	-	-	-	-	0.260

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>												<b>Date:</b> March 2019					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20						<b>P-1 Line Item Number / Title:</b> 4872G82925 / Assault Breacher Vehicle						<b>Item Number / Title [DODIC]:</b> G82925 / Assault Breacher Vehicle					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>					

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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	-	-	-	-	-	2.380	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	437.601	-	-	64.221	-	-	62.407	-	-	31.697	-	-	-	-	-	31.697
<i>Subtotal: Flyaway Cost</i>	-	-	437.601	-	-	64.221	-	-	62.407	-	-	31.697	-	-	-	-	-	31.697
<b>Gross/Weapon System Cost</b>	<b>3,872.575</b>	<b>113</b>	<b>437.601</b>	<b>4,940.077</b>	<b>13</b>	<b>64.221</b>	<b>5,200.583</b>	<b>12</b>	<b>62.407</b>	<b>5,282.833</b>	<b>6</b>	<b>31.697</b>	-	-	-	<b>5,282.833</b>	<b>6</b>	<b>31.697</b>

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	6	6	6	-	6
	Total Obligation Authority	29.640	31.204	31.697	-	31.697
ANG	Quantity	7	6	-	-	-
	Total Obligation Authority	34.581	31.203	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>13</b>	<b>12</b>	<b>6</b>	<b>-</b>	<b>6</b>
	<b>Total Obligation Authority</b>	<b>64.221</b>	<b>62.407</b>	<b>31.697</b>	<b>-</b>	<b>31.697</b>

(†) indicates the presence of a P-5a

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**Exhibit P-5a, Procurement History and Planning:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 4872G82925 / Assault Breacher Vehicle	<b>Item Number / Title [DODIC]:</b> 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 <sup>(†)</sup>		2018	Anniston Army Depot- (ANAD) / Anniston, Al	WR	TACOM, Warren	Feb 2018	Feb 2019	13	2,737.308	Y		
ABV Hardware <sup>(†)</sup>		2019	Anniston Army Depot- (ANAD) / Anniston, Al	WR	TACOM, Warren	Feb 2019	Feb 2020	12	2,790.917	Y		
ABV Hardware <sup>(†)</sup>		2020	Anniston Army Depot- (ANAD) / Anniston, Al	WR	TACOM, Warren	Feb 2020	Feb 2021	6	2,846.167	Y		

<sup>(†)</sup> indicates the presence of a P-21



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**Exhibit P-21, Production Schedule:** PB 2020 Army **Date:** March 2019

**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 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
ABV Hardware																															
Prior Years Deliveries: 105																															
1		2018	ARMY	13	0	13																							5		
1		2019	ARMY	12	0	12																							12		
1		2020	ARMY	6	0	6																							6		
							O C T	N O V	D E C	J A N	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	

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2020 Army **Date:** March 2019

**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 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	
ABV Hardware																																
Prior Years Deliveries: 105																																
1		2018	ARMY	13	8	5	1	1	1	2																						0
1		2019	ARMY	12	0	12	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
1		2020	ARMY	6	0	6					A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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		

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army	<b>Date:</b> March 2019
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 4872G82925 / Assault Breacher Vehicle	<b>Item Number / Title [DODIC]:</b> G82925 / Assault Breacher Vehicle
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2020	1-8-5 For 2020	MAX For 2020	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).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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): **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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	121.452	4.826	4.517	4.500	-	4.500	8.000	6.000	-	-	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	121.452	4.826	4.517	4.500	-	4.500	8.000	6.000	-	-	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>121.452</b>	<b>4.826</b>	<b>4.517</b>	<b>4.500</b>	<b>-</b>	<b>4.500</b>	<b>8.000</b>	<b>6.000</b>	<b>-</b>	<b>-</b>	<b>Continuing</b>	<b>Continuing</b>

*(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, power management system, improved automotive performance related to braking, and special tools delta kits.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.826	4.517	4.500	-	4.500	8.000	6.000	-	-
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	<b>4.826</b>	<b>4.517</b>	<b>4.500</b>	<b>-</b>	<b>4.500</b>	<b>8.000</b>	<b>6.000</b>	<b>-</b>	<b>-</b>

**Justification:**

FY 2020 base procurement dollars in the amount of \$4.500 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.

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

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	24	27	28	44	-	44	42	56	58	51	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	158.179	128.350	139.146	205.517	-	205.517	198.392	264.044	278.931	254.406	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	158.179	128.350	139.146	205.517	-	205.517	198.392	264.044	278.931	254.406	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>158.179</b>	<b>128.350</b>	<b>139.146</b>	<b>205.517</b>	<b>-</b>	<b>205.517</b>	<b>198.392</b>	<b>264.044</b>	<b>278.931</b>	<b>254.406</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	6,590.792	4,753.704	4,969.500	4,670.841	-	4,670.841	4,723.619	4,715.071	4,809.155	4,988.353	Continuing	Continuing

**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) completion is planned for February 2019, and Initial Operational Test completion is planned for June 2019 to support a Full Rate Production Decision in first quarter FY 2020.

JAB Army Acquisition Objective: 337

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	27	16	14	-	14	23	24	-	27
	Total Obligation Authority	128.350	79.512	65.392	-	65.392	108.643	113.162	22.792	134.686
ANG	Quantity	-	12	30	-	30	8	12	18	6
	Total Obligation Authority	-	59.634	140.125	-	140.125	37.789	56.581	86.565	29.930
AR	Quantity	-	-	-	-	-	11	20	40	18
	Total Obligation Authority	-	-	-	-	-	51.960	94.301	169.574	89.790
<b>Total:</b>	<b>Quantity</b>	<b>27</b>	<b>28</b>	<b>44</b>	<b>-</b>	<b>44</b>	<b>42</b>	<b>56</b>	<b>58</b>	<b>51</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>128.350</b>	<b>139.146</b>	<b>205.517</b>	<b>-</b>	<b>205.517</b>	<b>198.392</b>	<b>264.044</b>	<b>278.931</b>	<b>254.406</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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		24 / 158.179	27 / 128.350	28 / 139.146	44 / 205.517	- / -	44 / 205.517
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>24 / 158.179</b>	<b>27 / 128.350</b>	<b>28 / 139.146</b>	<b>44 / 205.517</b>	<b>- / -</b>	<b>44 / 205.517</b>

\*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 2020 Base Procurement dollars in the amount of \$205.517 million supports 44 Full Rate Production (FRP) Joint Assault Bridges (JAB) for Army National Guard and Army pre-positioned stocks (APS) 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 and mobility compared to the legacy M60 Armored Vehicle Launch Bridge, and is capable of supporting the Abrams Legacy Fleet while also providing improved sustainability.

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: 337

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>											<b>Date:</b> March 2019						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20						<b>P-1 Line Item Number / Title:</b> 5225GZ3001 / Joint Assault Bridge					<b>Item Number / Title [DODIC]:</b> GZ3001 / Joint Assault Bridge						
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B											<b>MDAP/MAIS Code:</b>						
Resource Summary				Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Procurement Quantity (Units in Each)				24		27		28		44		-		44			
Gross/Weapon System Cost (\$ in Millions)				158.179		128.350		139.146		205.517		-		205.517			
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-			
Net Procurement (P-1) (\$ in Millions)				158.179		128.350		139.146		205.517		-		205.517			
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-			
<b>Total Obligation Authority (\$ in Millions)</b>				<b>158.179</b>		<b>128.350</b>		<b>139.146</b>		<b>205.517</b>		<b>-</b>		<b>205.517</b>			
<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)				6,590.792		4,753.704		4,969.500		4,670.841		-		4,670.841			

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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)
<b>Flyaway Cost</b>																		
<b>Recurring Cost</b>																		
Hardware <sup>(†)</sup>	1,613.000	24	38.712	1,300.000	27	35.100	1,325.464	28	37.113	1,351.727	44	59.476	-	-	-	1,351.727	44	59.476
GFM ANAD Rolling Chassis	2,562.500	24	61.500	2,470.000	27	66.690	2,518.429	28	70.516	2,568.273	44	113.004	-	-	-	2,568.273	44	113.004
Bridge Upgrades	434.167	24	10.420	475.889	27	12.849	485.214	28	13.586	494.841	44	21.773	-	-	-	494.841	44	21.773
Engineering Changes	-	-	13.387	-	-	4.912	-	-	3.841	-	-	1.977	-	-	-	-	-	1.977
System Engineering/ Program Management	-	-	19.500	-	-	6.667	-	-	4.577	-	-	5.337	-	-	-	-	-	5.337
Support Equipment/ ASIOE	-	-	7.260	-	-	0.132	-	-	0.132	-	-	0.156	-	-	-	-	-	0.156
Fielding	-	-	2.300	-	-	2.000	-	-	1.100	-	-	1.300	-	-	-	-	-	1.300
First Destination Transportation - FDT	-	-	-	-	-	-	-	-	1.300	-	-	2.494	-	-	-	-	-	2.494
<b>Subtotal: Recurring Cost</b>	<b>-</b>	<b>-</b>	<b>153.079</b>	<b>-</b>	<b>-</b>	<b>128.350</b>	<b>-</b>	<b>-</b>	<b>132.165</b>	<b>-</b>	<b>-</b>	<b>205.517</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>205.517</b>
<b>Non Recurring Cost</b>																		
Logistics Products	-	-	5.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Simulator - Common Driver Trainer (CDT) Update	-	-	-	-	-	-	-	-	6.981	-	-	-	-	-	-	-	-	-
<b>Subtotal: Non Recurring Cost</b>	<b>-</b>	<b>-</b>	<b>5.100</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6.981</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Subtotal: Flyaway Cost</b>	<b>-</b>	<b>-</b>	<b>158.179</b>	<b>-</b>	<b>-</b>	<b>128.350</b>	<b>-</b>	<b>-</b>	<b>139.146</b>	<b>-</b>	<b>-</b>	<b>205.517</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>205.517</b>

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>												<b>Date:</b> March 2019					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20						<b>P-1 Line Item Number / Title:</b> 5225GZ3001 / Joint Assault Bridge						<b>Item Number / Title [DODIC]:</b> GZ3001 / Joint Assault Bridge					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B												<b>MDAP/MAIS Code:</b>					

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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	6,590.792	24	158.179	4,753.704	27	128.350	4,969.500	28	139.146	4,670.841	44	205.517	-	-	-	4,670.841	44	205.517

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	27	16	14	-	14
	Total Obligation Authority	128.350	79.512	65.392	-	65.392
ANG	Quantity	-	12	30	-	30
	Total Obligation Authority	-	59.634	140.125	-	140.125
<b>Total:</b>	<b>Quantity</b>	<b>27</b>	<b>28</b>	<b>44</b>	<b>-</b>	<b>44</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>128.350</b>	<b>139.146</b>	<b>205.517</b>	<b>-</b>	<b>205.517</b>

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



**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 5225GZ3001 / Joint Assault Bridge	<b>Item Number / Title [DODIC]:</b> 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 <sup>(†)</sup>		2018	DRS Sustainment Systems, INC / Saint Louis, MO	C / FFP	TACOM, Warren, MI	Dec 2017	Apr 2019	27	1,300.000	Y		
Hardware <sup>(†)</sup>		2019	DRS Sustainment Systems, INC / Saint Louis, MO	C / FFP	TACOM, Warren, MI	Feb 2019	Apr 2020	28	1,325.464	Y		
Hardware <sup>(†)</sup>		2020	DRS Sustainment Systems, INC / Saint Louis, MO	C / FFP	TACOM, Warren, MI	Dec 2019	Apr 2021	44	1,351.727	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

Full Rate Production (FRP) decision is scheduled for a first quarter FY 2020.

DRS Sustainment Systems Inc. established a public private partnership with Anniston Army Depot (ANAD) to provide overhauled M1A1 Abrams Chassis that is part of the JAB system.

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**Exhibit P-21, Production Schedule:** PB 2020 Army **Date:** March 2019

**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																																				
Prior Years Deliveries: 24																																				
1		2018	ARMY	27	0	27			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	15	
1		2019	ARMY	28	0	28																							A -	-	-	-	-	-	-	28
1		2020	ARMY	44	0	44																													44	
							O C T	N O V	D E C	J A N	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 2020 Army **Date:** March 2019

**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																																
Prior Years Deliveries: 24																																
1		2018	ARMY	27	12	15	2	2	2	3	3	3																	0			
1		2019	ARMY	28	0	28	-	-	-	-	-	-	3	3	2	2	2	2	2	2	2	3	3						0			
1		2020	ARMY	44	0	44			A	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	4	4	24			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		

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**Exhibit P-21, Production Schedule:** PB 2020 Army **Date:** March 2019

**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																															
Prior Years Deliveries: 24																															
	1	2018	ARMY	27	27	0																							0		
	1	2019	ARMY	28	28	0																							0		
	1	2020	ARMY	44	20	24	4	4	4	4	4	4																0			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army	<b>Date:</b> March 2019
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 5225GZ3001 / Joint Assault Bridge	<b>Item Number / Title [DODIC]:</b> GZ3001 / Joint Assault Bridge
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2020	1-8-5 For 2020	MAX For 2020	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	4	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).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	6,359.672	602.026	959.041	348.800	13.100	361.900	399.314	369.166	386.422	370.544	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	6,359.672	602.026	959.041	348.800	13.100	361.900	399.314	369.166	386.422	370.544	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>6,359.672</b>	<b>602.026</b>	<b>959.041</b>	<b>348.800</b>	<b>13.100</b>	<b>361.900</b>	<b>399.314</b>	<b>369.166</b>	<b>386.422</b>	<b>370.544</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	105,994.533	-	-	-	-	-	-	-	-	-	Continuing	Continuing

**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 requirements 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	602.026	959.041	348.800	13.100	361.900	399.314	369.166	386.422	370.544
<b>Total: Secondary Distribution</b>	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	<b>602.026</b>	<b>959.041</b>	<b>348.800</b>	<b>13.100</b>	<b>361.900</b>	<b>399.314</b>	<b>369.166</b>	<b>386.422</b>	<b>370.544</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / Mods (Increase Performance)		A		- / 6,359.672	- / 602.026	- / 959.041	- / 348.800	- / 13.100	- / 361.900
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 6,359.672</b>	<b>- / 602.026</b>	<b>- / 959.041</b>	<b>- / 348.800</b>	<b>- / 13.100</b>	<b>- / 361.900</b>

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / Mods (Increase Performance)		A		- / 399.314	- / 369.166	- / 386.422	- / 370.544	Continuing	Continuing
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 399.314</b>	<b>- / 369.166</b>	<b>- / 386.422</b>	<b>- / 370.544</b>	<b>Continuing</b>	<b>Continuing</b>

\*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 2020 Base procurement dollars in the amount of \$348.800 million supports:

- The procurement and field application of the following efforts: procurement and field application of the Ammunition Data Link (ADL), Common Remote Operated Weapon Station Low Profile (CROWS-LP), and continued support of the Total Integrated Engine Revitalization (TIGER) and Transmission programs, Direct Support Electrical System Test Sets (DSESTS) and upgrades to Training Aids, Devices, Simulators and Simulations (TADSS) and logistics support to facilitate the integration 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 to maintain the Abrams tank IB manufacturing and production capability.

FY 2020 OCO procurement dollars in the amount \$13.100 million supports COCOM requirement for unit equipment sets to deter potential adversaries and support European Deterrence Initiative (EDI). Funding supports logistics support to facilitate the integration of the improved Active Protection System, which is critical to counter anti-armor capabilities in near-peer adversaries.

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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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)	<b>Modification Number / Title:</b> GA0700 / Mods

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A						<b>MDAP/MAIS Code:</b>						
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	6,359.672	602.026	959.041	348.800	13.100	361.900	399.314	369.166	386.422	370.544	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	6,359.672	602.026	959.041	348.800	13.100	361.900	399.314	369.166	386.422	370.544	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>6,359.672</b>	<b>602.026</b>	<b>959.041</b>	<b>348.800</b>	<b>13.100</b>	<b>361.900</b>	<b>399.314</b>	<b>369.166</b>	<b>386.422</b>	<b>370.544</b>	<b>Continuing</b>	<b>Continuing</b>
<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> )	105,994.533	-	-	-	-	-	-	-	-	-	Continuing	Continuing

**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, or any other gap identified by the Combat or Material Developer. Installation of hardware is either cascaded into the production line in an ECP or applied on a unit-by-unit basis by several field modification teams and is determined by funding availability. Installation costs are included in the contractor costs and cannot be broken out. Contractor 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 this MOD 2 because STS and testing validation efforts are used to modify the tank in support of field upgrades and fielding. Vehicle Health Management System and Embedded Training (VEM) will be funded under MOD 3 since it will no longer be a field mod upgrade.

Engineering Change Proposal (ECP) 1A (Power) (MOD3): Funding for M1A2 SEP V3 includes the procurement and application of Army Directed requirements for Space, Weight, and Power-Cooling (SWAP-C) buyback components during the recapitalization (RECAP) of the Abrams tank. Each vehicle will be overhauled to a zero hour/zero mile condition and then reassembled with the following additional hardware: Handheld Manpack Small (HMS), Power Generation/Distribution improvements including Battery Monitoring System (BMS), 1000 Amp Generator, Slip Ring, Counter Remote Controlled Improvised Explosive Device Electronic Warfare (CREW) III integration, Next Generation Armor, Ammunition Data Link (ADL) integration to enable firing of programmable munitions, and Under Armor Auxiliary Power Unit (UAAPU).

Armor (MOD 4): The Department of Energy (DOE) provides Abrams Armor. PM Abrams kept the armor facility at a sustainable level to maintain the industrial base and minimize the loss of skilled labor. In that regard, FY16 and beyond procures full Next Evolution Armor (NEA) packages which are applied during M1A2 SEP V3 vehicle recapitalization.

Program/Engineering Support (MOD 5): This modification line funds government program/project managers' salaries, benefits, TDY, office automation, administration, and supplies. These funds also provide for dedicated functional support from the Tank Automotive Command (TACOM), Army Research and Development Command (ARDEC), 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 and Allison Transmission. This modification line funds System Technical Support (STS) from Honeywell for the TIGER engine / Digital Engine Control Unit (DECU) and from Allison Transmission for the transmission. Contractor dates will vary by item.



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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)	<b>Modification Number / Title:</b> GA0700 / Mods

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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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). Contractor 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 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, 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, correct faulty 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 the Active Protection systems began in FY 2018, installation and additional procurement will occur in FY 2019 and continue in FY 2020. Application both as a field modification and on new variants on the production line will be continuous.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	602.026	959.041	348.800	13.100	361.900	399.314	369.166	386.422	370.544
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	602.026	959.041	348.800	13.100	361.900	399.314	369.166	386.422	370.544

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date: March 2019</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20					<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)					<b>Modification Number / Title:</b> GA0700 / Mods			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> Abrams Family of Vehicles				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
<b>Procurement</b>													
<b>Modification Item 1 of 9: Prior Year Closed Mods</b>													
A Kits													
Non-Recurring													
Other	- / 2,842.034	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
<b>Subtotal: Non-Recurring</b>	- / 2,842.034	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
<b>Subtotal: Prior Year Closed Mods</b>	- / 2,842.034	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
<b>Modification Item 2 of 9: Abrams Field Upgrades</b>													
A Kits													
Recurring													
ARAT Weldments	- / -	- / -	- / -	87 / 0.829	- / -	87 / 0.829	87 / 0.846	87 / 0.863	87 / 0.880	87 / 0.897	- / 0.000	435 / 4.315	
CROWS-LP A and B Kits & ICDU upgrade	465 / 63.206	287 / 39.893	213 / 30.007	158 / 32.052	- / -	158 / 32.052	74 / 18.317	113 / 39.475	7 / 8.585	- / 0.000	- / 0.000	1,317 / 231.535	
VEM	105 / 10.514	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	105 / 10.514	
Ammunition Data Link (ADL)	465 / 61.434	90 / 2.450	180 / 21.197	90 / 11.302	- / -	90 / 11.302	90 / 12.331	90 / 14.895	180 / 15.399	180 / 14.967	- / 0.000	1,365 / 153.975	
Maintenance Support Device Hard Drive	- / 0.510	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Support Equipment and TPF	- / 139.219	- / 12.785	- / 22.000	- / 25.000	- / -	- / 25.000	- / 21.781	- / 21.214	- / 29.215	- / 19.553	- / -	Continuing	Continuing
System Technical Support	- / 326.115	- / 104.927	- / 105.266	- / 100.957	- / -	- / 100.957	- / 89.468	- / 87.605	- / 95.806	- / 85.247	- / -	Continuing	Continuing
Test Support	- / -	- / 5.942	- / 3.791	- / 17.215	- / -	- / 17.215	- / 12.901	- / 8.223	- / 16.387	- / 13.555	- / -	Continuing	Continuing
Ammunition Data Link (ADL) AMP Round	- / -	- / -	- / -	90 / 23.731	- / -	90 / 23.731	90 / 10.838	90 / 11.055	180 / 22.552	180 / 23.003	- / 0.000	630 / 91.179	
Vehicle Generated Smoke	- / -	- / -	- / -	90 / 6.565	- / -	90 / 6.565	90 / 2.998	90 / 3.058	180 / 6.239	90 / 6.363	- / 0.000	540 / 25.223	
<b>Subtotal: Recurring</b>	<b>1,035 / 600.998</b>	<b>377 / 165.997</b>	<b>393 / 182.261</b>	<b>515 / 217.651</b>	<b>- / -</b>	<b>515 / 217.651</b>	<b>431 / 169.480</b>	<b>470 / 186.388</b>	<b>634 / 195.063</b>	<b>537 / 163.585</b>	<b>Continuing</b>	<b>Continuing</b>	
Non-Recurring													
Installation Kits	- / 283.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 283.400	
CROWS-LP Engineering Support	- / 6.283	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 6.283	
<b>Subtotal: Non-Recurring</b>	<b>- / 289.683</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 289.683</b>	
<b>Subtotal: Abrams Field Upgrades</b>	<b>1,035 / 890.681</b>	<b>377 / 165.997</b>	<b>393 / 182.261</b>	<b>515 / 217.651</b>	<b>- / -</b>	<b>515 / 217.651</b>	<b>431 / 169.480</b>	<b>470 / 186.388</b>	<b>634 / 195.063</b>	<b>537 / 163.585</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Modification Item 3 of 9: Engineering Change Proposal 1A</b>													
A Kits													
Recurring													
M1A2C Modification Kits	105 / 268.115	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date: March 2019</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20					<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)					<b>Modification Number / Title:</b> GA0700 / Mods			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> Abrams Family of Vehicles				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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>	105 / 268.115	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Engineering Change Proposal 1A</i>	105 / 268.115	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	Continuing	Continuing	
<b>Modification Item 4 of 9: Armor</b>													
A Kits													
Recurring													
Armor Sets	114 / 160.480	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	114 / 160.480	
Next Generation Armor	105 / 141.134	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	105 / 141.134	
<i>Subtotal: Recurring</i>	219 / 301.614	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	219 / 301.614	
Non-Recurring													
Installation Kits	821 / 526.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	821 / 526.800	
<i>Subtotal: Non-Recurring</i>	821 / 526.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	821 / 526.800	
<i>Subtotal: Armor</i>	1,040 / 828.414	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	1,040 / 828.414	
<b>Modification Item 5 of 9: Program/Engineering Support</b>													
A Kits													
Recurring													
Government Program Support	- / 163.050	- / 6.409	- / 10.445	- / 6.664	- / -	- / 6.664	- / 6.797	- / 6.933	- / 7.072	- / 7.213	Continuing	Continuing	
Contractor Program Support	- / 16.223	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
Government Test Support	- / 26.312	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 205.585	- / 6.409	- / 10.445	- / 6.664	- / -	- / 6.664	- / 6.797	- / 6.933	- / 7.072	- / 7.213	Continuing	Continuing	
<i>Subtotal: Program/Engineering Support</i>	- / 205.585	- / 6.409	- / 10.445	- / 6.664	- / -	- / 6.664	- / 6.797	- / 6.933	- / 7.072	- / 7.213	Continuing	Continuing	
<b>Modification Item 6 of 9: Power Pack Improvement and Integration</b>													
A Kits													
Recurring													
System Technical Support	- / 137.545	- / 11.234	- / 15.494	- / 17.000	- / -	- / 17.000	- / 15.960	- / 15.100	- / 13.453	- / 12.333	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 137.545	- / 11.234	- / 15.494	- / 17.000	- / -	- / 17.000	- / 15.960	- / 15.100	- / 13.453	- / 12.333	Continuing	Continuing	
Non-Recurring													
Installation Kits	2,691 / 930.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Non-Recurring</i>	2,691 / 930.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Power Pack Improvement and Integration</i>	2,691 / 1,067.845	- / 11.234	- / 15.494	- / 17.000	- / -	- / 17.000	- / 15.960	- / 15.100	- / 13.453	- / 12.333	Continuing	Continuing	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date: March 2019</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20					<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)					<b>Modification Number / Title:</b> GA0700 / Mods			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> Abrams Family of Vehicles				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
<b>Modification Item 7 of 9: Training Devices</b>													
A Kits													
Recurring													
Training Equipment Modifications	- / 144.596	- / 10.577	- / 19.625	- / 19.150	- / -	- / 19.150	- / 54.500	- / 15.754	- / 30.754	- / 31.725	Continuing	Continuing	
<b>Subtotal: Recurring</b>	<b>- / 144.596</b>	<b>- / 10.577</b>	<b>- / 19.625</b>	<b>- / 19.150</b>	<b>- / -</b>	<b>- / 19.150</b>	<b>- / 54.500</b>	<b>- / 15.754</b>	<b>- / 30.754</b>	<b>- / 31.725</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Subtotal: Training Devices</b>	<b>- / 144.596</b>	<b>- / 10.577</b>	<b>- / 19.625</b>	<b>- / 19.150</b>	<b>- / -</b>	<b>- / 19.150</b>	<b>- / 54.500</b>	<b>- / 15.754</b>	<b>- / 30.754</b>	<b>- / 31.725</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Modification Item 8 of 9: Facilities Optimization and Maintenance</b>													
A Kits													
Recurring													
Production Line Optimization	- / 68.626	- / 101.355	- / 110.236	- / 48.335	- / -	- / 48.335	- / 55.161	- / 45.000	- / 55.707	- / 55.688	Continuing	Continuing	
<b>Subtotal: Recurring</b>	<b>- / 68.626</b>	<b>- / 101.355</b>	<b>- / 110.236</b>	<b>- / 48.335</b>	<b>- / -</b>	<b>- / 48.335</b>	<b>- / 55.161</b>	<b>- / 45.000</b>	<b>- / 55.707</b>	<b>- / 55.688</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Subtotal: Facilities Optimization and Maintenance</b>	<b>- / 68.626</b>	<b>- / 101.355</b>	<b>- / 110.236</b>	<b>- / 48.335</b>	<b>- / -</b>	<b>- / 48.335</b>	<b>- / 55.161</b>	<b>- / 45.000</b>	<b>- / 55.707</b>	<b>- / 55.688</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Modification Item 9 of 9: Survivability Enhancements</b>													
A Kits													
Recurring													
A-Kit Logistics Support	- / -	- / -	- / 1.161	- / 8.753	- / -	- / 8.753	- / 9.801	- / 10.134	- / 10.222	- / 9.659	- / 0.000	- / 49.730	
Turret Mitigation	- / -	- / -	- / -	- / -	- / -	- / -	188 / 52.734	188 / 53.788	134 / 39.115	188 / 55.962	- / 0.000	698 / 201.599	
Active Protection System (APS)	- / -	- / 52.000	- / 55.228	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 107.228	
<b>Subtotal: Recurring</b>	<b>- / -</b>	<b>- / 52.000</b>	<b>- / 56.389</b>	<b>- / 8.753</b>	<b>- / -</b>	<b>- / 8.753</b>	<b>188 / 62.535</b>	<b>188 / 63.922</b>	<b>134 / 49.337</b>	<b>188 / 65.621</b>	<b>- / -</b>	<b>698 / 358.557</b>	
Non-Recurring													
Turret Mitigation	- / -	- / -	- / 138.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 138.600	
<b>Subtotal: Non-Recurring</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 138.600</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 138.600</b>	
B Kits													
Recurring													
B-Kit Logistics Support	- / -	- / -	- / -	- / 26.987	- / 13.100	- / 40.087	- / 34.881	- / 36.069	- / 35.036	- / 34.379	- / 0.000	- / 180.452	
APS	- / -	94 / 158.921	282 / 342.159	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	376 / 501.080	
<b>Subtotal: Recurring</b>	<b>- / -</b>	<b>94 / 158.921</b>	<b>282 / 342.159</b>	<b>- / 26.987</b>	<b>- / 13.100</b>	<b>- / 40.087</b>	<b>- / 34.881</b>	<b>- / 36.069</b>	<b>- / 35.036</b>	<b>- / 34.379</b>	<b>- / -</b>	<b>376 / 681.532</b>	
Non-Recurring													
Countermeasures - APS	- / -	- / 19.900	- / 83.832	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 103.732	
<b>Subtotal: Non-Recurring</b>	<b>- / -</b>	<b>- / 19.900</b>	<b>- / 83.832</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 103.732</b>	

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**Exhibit P-3a, Individual Modification: PB 2020 Army** **Date:** March 2019

**Appropriation / Budget Activity / Budget Sub Activity:** 2033A / 01 / 20 **P-1 Line Item Number / Title:** 6406GA0700 / M1 Abrams Tank (MOD) **Modification Number / Title:** GA0700 / Mods

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Survivability Enhancements</i>	- / -	94 / 230.821	282 / 620.980	- / 35.740	- / 13.100	- / 48.840	188 / 97.416	188 / 99.991	134 / 84.373	188 / 100.000	- / -	1,074 / 1,282.421
<i>Subtotal: Procurement, All Modification Items</i>	4,871 / 6,315.896	471 / 526.393	675 / 959.041	515 / 344.540	- / 13.100	515 / 357.640	619 / 399.314	658 / 369.166	768 / 386.422	725 / 370.544	Continuing	Continuing
<b>Installation</b>												
<i>Modification Item 3 of 9: Engineering Change Proposal 1A</i>	45 / 43.776	60 / 75.633	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	105 / 119.409
<i>Modification Item 9 of 9: Survivability Enhancements</i>	- / -	- / -	- / -	376 / 4.260	- / -	376 / 4.260	- / -	- / -	- / -	- / -	- / -	376 / 4.260
<i>Subtotal: Installation</i>	45 / 43.776	60 / 75.633	- / -	376 / 4.260	- / -	376 / 4.260	- / -	- / -	- / -	- / -	- / -	481 / 123.669
<b>Total</b>												
<b>Total Cost (Procurement + Support + Installation)</b>	<b>6,359.672</b>	<b>602.026</b>	<b>959.041</b>	<b>348.800</b>	<b>13.100</b>	<b>361.900</b>	<b>399.314</b>	<b>369.166</b>	<b>386.422</b>	<b>370.544</b>	<b>Continuing</b>	<b>Continuing</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)			<b>Modification Number / Title:</b> GA0700 / Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 1 of 9:</b> Prior Year Closed Mods							
<b>Manufacturer Information</b>							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Various					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)			<b>Modification Number / Title:</b> GA0700 / Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 2 of 9:</b> Abrams Field Upgrades							
<b>Manufacturer Information</b>							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Contractor Teams (Contractor dates will vary by item and cannot be predicted)					<b>Installation Quantity:</b> 0		

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**Exhibit P-3a, Individual Modification: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)	<b>Modification Number / Title:</b> GA0700 / Mods
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Modification Item 3 of 9:** Engineering Change Proposal 1A

**Manufacturer Information**

Manufacturer Name: General Dynamics and Anniston Army Depot Manufacturer Location: ANAD Alabama and JSMC Lima Ohio

Administrative Leadtime (in Months): 6 Production Leadtime (in Months): 24

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** Various

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	45 / 43.776	60 / 75.633	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	105 / 119.409
FY 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
<b>Total</b>	<b>45 / 43.776</b>	<b>60 / 75.633</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>105 / 119.409</b>

**Installation Schedule**

PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	51	19	21	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	8	23	20	19	21	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)			<b>Modification Number / Title:</b> GA0700 / Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 4 of 9:</b> Armor							
<b>Manufacturer Information</b>							
Manufacturer Name: Department of Energy				Manufacturer Location: Various			
Administrative Leadtime (in Months): 7				Production Leadtime (in Months): 12			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Armor package will be applied during ECP 1A vehicle recapitalization					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)			<b>Modification Number / Title:</b> GA0700 / Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 5 of 9:</b> Program/Engineering Support							
<b>Manufacturer Information</b>							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months):				Production Leadtime (in Months): 1			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Oct 2017	Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023
Delivery Dates	Nov 2017	Nov 2018	Nov 2019	Nov 2020	Nov 2021	Nov 2022	Nov 2023
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Various					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)			<b>Modification Number / Title:</b> GA0700 / Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 6 of 9:</b> Power Pack Improvement and Integration							
<b>Manufacturer Information</b>							
Manufacturer Name: Honeywell and Allison Transmission				Manufacturer Location: Phoenix Arizona and Indianapolis Indiana			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Contractor Support (Contractor dates will vary by item and cannot be predicted)					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)			<b>Modification Number / Title:</b> GA0700 / Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 7 of 9:</b> Training Devices							
<b>Manufacturer Information</b>							
Manufacturer Name: PEO Simulation Training and Instrumentation					Manufacturer Location: Orlando Florida		
Administrative Leadtime (in Months):					Production Leadtime (in Months):		
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Various (Contractor dates will vary by item and cannot be predicted)					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)			<b>Modification Number / Title:</b> GA0700 / Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 8 of 9:</b> Facilities Optimization and Maintenance							
<b>Manufacturer Information</b>							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Various (Contractor dates will vary by item and cannot be predicted)					<b>Installation Quantity:</b> 0		

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**Exhibit P-3a, Individual Modification: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 6406GA0700 / M1 Abrams Tank (MOD)	<b>Modification Number / Title:</b> GA0700 / Mods
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 9 of 9:** 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 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Dec 2018	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023
Delivery Dates	Oct 2019	Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023	Oct 2024

**Installation Information**

**Method of Implementation:** Contract FFP

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	94 / 1.161	- / -	94 / 1.161	- / -	- / -	- / -	- / -	- / -	94 / 1.161
FY 2019	- / -	- / -	- / -	282 / 3.099	- / -	282 / 3.099	- / -	- / -	- / -	- / -	- / -	282 / 3.099
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	- / -	- / -	- / -	376 / 4.260	- / -	376 / 4.260	- / -	- / -	- / -	- / -	- / -	376 / 4.260

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	1,292	120	168	165	-	165	67	91	96	105	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	9,325.894	1,088.300	1,527.243	1,752.784	-	1,752.784	797.444	1,074.597	1,429.138	1,499.122	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	2,064.494	-	-	-	-	-	-	-	-	-	-	2,064.494
Net Procurement (P-1) ( <i>\$ in Millions</i> )	7,261.400	1,088.300	1,527.243	1,752.784	-	1,752.784	797.444	1,074.597	1,429.138	1,499.122	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	2,064.494	-	-	-	-	-	-	-	-	-	-	2,064.494
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>9,325.894</b>	<b>1,088.300</b>	<b>1,527.243</b>	<b>1,752.784</b>	<b>-</b>	<b>1,752.784</b>	<b>797.444</b>	<b>1,074.597</b>	<b>1,429.138</b>	<b>1,499.122</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	7,218.184	9,069.167	9,090.732	10,622.933	-	10,622.933	11,902.149	11,808.758	14,886.854	14,277.352	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, and night vision capabilities. The M1A2 SEPv3 incorporates turret and hull armor upgrades 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	120	168	165	-	165	67	91	96	105
Total Obligation Authority	1,088.300	1,527.243	1,752.784	-	1,752.784	797.444	1,074.597	1,429.138	1,499.122
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	<b>120</b>	<b>168</b>	<b>165</b>	<b>-</b>	<b>165</b>	<b>67</b>	<b>91</b>	<b>96</b>	<b>105</b>
Total Obligation Authority	<b>1,088.300</b>	<b>1,527.243</b>	<b>1,752.784</b>	<b>-</b>	<b>1,752.784</b>	<b>797.444</b>	<b>1,074.597</b>	<b>1,429.138</b>	<b>1,499.122</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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		1,292 / 9,325.894	120 / 1,088.300	168 / 1,527.243	165 / 1,752.784	- / -	165 / 1,752.784
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>1,292 / 9,325.894</b>	<b>120 / 1,088.300</b>	<b>168 / 1,527.243</b>	<b>165 / 1,752.784</b>	<b>- / -</b>	<b>165 / 1,752.784</b>

\*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 2020 Base Procurement dollars in the amount of \$1,752.784 million supports the upgrade and assembly of 165 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.

Army Acquisition Objective: 2,101



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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>					<b>Date:</b> March 2019					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20			<b>P-1 Line Item Number / Title:</b> 6500GA0750 / Abrams Upgrade Program			<b>Item Number / Title [DODIC]:</b> GA0750 / Abrams Upgrade Program				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>					
Resource Summary			Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total		
Procurement Quantity (Units in Each)			1,292	120	168	165	-	165		
Gross/Weapon System Cost (\$ in Millions)			9,325.894	1,088.300	1,527.243	1,752.784	-	1,752.784		
Less PY Advance Procurement (\$ in Millions)			2,064.494	-	-	-	-	-		
Net Procurement (P-1) (\$ in Millions)			7,261.400	1,088.300	1,527.243	1,752.784	-	1,752.784		
Plus CY Advance Procurement (\$ in Millions)			2,064.494	-	-	-	-	-		
<b>Total Obligation Authority (\$ in Millions)</b>			<b>9,325.894</b>	<b>1,088.300</b>	<b>1,527.243</b>	<b>1,752.784</b>	<b>-</b>	<b>1,752.784</b>		
<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)			7,218.184	9,069.167	9,090.732	10,622.933	-	10,622.933		

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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 <sup>(†)</sup>	3,890.762	1,635	6,361.396	4,656.042	120	558.725	4,676.351	168	785.627	4,810.952	165	793.807	-	-	-	4,810.952	165	793.807
Government Furnished Equipment (GFE)	-	-	1,257.934	-	-	300.850	-	-	369.126	-	-	624.676	-	-	-	-	-	624.676
Pre-Modification Vehicle Teardown/ Refurb	-	-	16.482	-	-	98.185	-	-	158.107	-	-	102.792	-	-	-	-	-	102.792
TPF/New Equipment Training	-	-	201.816	-	-	17.715	-	-	28.482	-	-	20.798	-	-	-	-	-	20.798
Government Support	-	-	1,126.623	-	-	17.111	-	-	25.442	-	-	26.162	-	-	-	-	-	26.162
Transmissions	-	-	146.001	-	-	20.469	-	-	44.569	-	-	63.364	-	-	-	-	-	63.364
Forward Looking Infrared (FLIR)	-	-	120.923	-	-	75.245	-	-	104.067	-	-	104.288	-	-	-	-	-	104.288
Industrial Base Mitigation Support/ Facilities Optimization and Maintenance	-	-	94.719	-	-	-	-	-	11.823	-	-	16.897	-	-	-	-	-	16.897
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>9,325.894</i>	<i>-</i>	<i>-</i>	<i>1,088.300</i>	<i>-</i>	<i>-</i>	<i>1,527.243</i>	<i>-</i>	<i>-</i>	<i>1,752.784</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>1,752.784</i>
<i>Subtotal: Flyaway Cost</i>	<i>-</i>	<i>-</i>	<i>9,325.894</i>	<i>-</i>	<i>-</i>	<i>1,088.300</i>	<i>-</i>	<i>-</i>	<i>1,527.243</i>	<i>-</i>	<i>-</i>	<i>1,752.784</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>1,752.784</i>
<b>Gross/Weapon System Cost</b>	<b>7,218.184</b>	<b>1,292</b>	<b>9,325.894</b>	<b>9,069.167</b>	<b>120</b>	<b>1,088.300</b>	<b>9,090.732</b>	<b>168</b>	<b>1,527.243</b>	<b>10,622.933</b>	<b>165</b>	<b>1,752.784</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10,622.933</b>	<b>165</b>	<b>1,752.784</b>

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**Exhibit P-5, Cost Analysis: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 6500GA0750 / Abrams Upgrade Program	<b>Item Number / Title [DODIC]:</b> GA0750 / Abrams Upgrade Program
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	120	168	165	-	165
	Total Obligation Authority	1,088.300	1,527.243	1,752.784	-	1,752.784
<b>Total:</b>	<b>Quantity</b>	<b>120</b>	<b>168</b>	<b>165</b>	<b>-</b>	<b>165</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>1,088.300</b>	<b>1,527.243</b>	<b>1,752.784</b>	<b>-</b>	<b>1,752.784</b>

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

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**Exhibit P-5a, Procurement History and Planning: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20	<b>P-1 Line Item Number / Title:</b> 6500GA0750 / Abrams Upgrade Program	<b>Item Number / Title [DODIC]:</b> 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 <sup>(†)</sup>		2015	GDLS / Sterling Heights, MI	SS / FFP	TACOM-Warren	Dec 2016	Sep 2017	6	12,867.167	N		
Basic Vehicle <sup>(†)</sup>		2017	GDLS / Sterling Heights, MI	SS / FPIF	TACOM-Warren	Dec 2017	Jun 2019	28	5,939.750	N		
Basic Vehicle <sup>(†)</sup>		2018	GDLS / Sterling Heights, MI	SS / FPIF	TACOM-Warren	Dec 2017	Sep 2019	120	4,656.042	N		
Basic Vehicle <sup>(†)</sup>		2019	GDLS / Sterling Heights, MI	SS / FPIF	TACOM- Warren	Dec 2018	Sep 2020	168	4,676.351	N		
Basic Vehicle <sup>(†)</sup>		2020	GDLS / Sterling Heights, MI	SS / FPIF	TACOM-Warren	Mar 2020	Sep 2021	165	4,810.952	N		

<sup>(†)</sup> 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 2020 Army **Date:** March 2019

**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 2017												Fiscal Year 2018												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												
							O C T	N O V	D E C	J A N	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: 1601																															
1		2015	ARMY	6	0	6			A -	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1					0		
1		2017	ARMY	28	0	28																							28		
1		2018	ARMY	120	0	120																							120		
1		2018	FMS <sup>(*)</sup>	351	0	351																							351		
<b>1</b>		<b>2018</b>	<b>Total</b>	<b>471</b>	<b>0</b>	<b>471</b>																							<b>471</b>		
1		2019	ARMY	168	0	168																							168		
1		2020	ARMY	165	0	165																							165		

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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army															<b>Date:</b> March 2019														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20										<b>P-1 Line Item Number / Title:</b> 6500GA0750 / Abrams Upgrade Program										<b>Item Number / Title [DODIC]:</b> GA0750 / Abrams Upgrade Program									

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					
Basic Vehicle																																			
Prior Years Deliveries: 1601																																			
1	2015	ARMY		6	6	0																													0
1	2017	ARMY		28	0	28	-	-	-	-	-	-	-	-	1	2	5	11	5	-	-	1	1	1	1									0	
1	2018	ARMY		120	0	120	-	-	-	-	-	-	-	-	-	-	1	6	11	11	11	11	11	11	11	11	11	11	12	12	12	12	-	0	
1	2018	FMS <sup>(*)</sup>		351	0	351	-	-	-	-	-	-	-	-	-	-	9	9	9	19	21	23	23	23	23	23	23	23	23	23	23	23	77		
1	2018	<b>Total</b>		<b>471</b>	<b>0</b>	<b>471</b>	-	-	-	-	-	-	-	-	-	<b>9</b>	<b>10</b>	<b>15</b>	<b>30</b>	<b>32</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>23</b>	<b>77</b>			
1	2019	ARMY		168	0	168			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	164		
1	2020	ARMY		165	0	165																												165	

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2020 Army** **Date:** March 2019

**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 2021												Fiscal Year 2022												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T O 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
Basic Vehicle																															
Prior Years Deliveries: 1601																															
1		2015	ARMY	6	6	0																							0		
1		2017	ARMY	28	28	0																							0		
1		2018	ARMY	120	120	0	-	-	-	-	-																		0		
1		2018	FMS <sup>(*)</sup>	351	274	77	21	14	14	14	14																		0		
<b>1</b>		<b>2018</b>	<b>Total</b>	<b>471</b>	<b>394</b>	<b>77</b>	<b>21</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>		
1		2019	ARMY	168	4	164	14	15	15	15	15	15	15	15	15														0		
1		2020	ARMY	165	0	165	-	-	-	-	-	-	-	-	-	14	14	14	13	13	14	14	14	14	14	14	13		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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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army								<b>Date:</b> March 2019				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 01 / 20				<b>P-1 Line Item Number / Title:</b> 6500GA0750 / Abrams Upgrade Program				<b>Item Number / Title [DODIC]:</b> GA0750 / Abrams Upgrade Program				
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2020	1-8-5 For 2020	MAX For 2020	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 2020 Army **Date:** March 2019

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

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	991	1,534	-	13	13	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	781.489	9.874	14.581	-	0.900	0.900	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	781.489	9.874	14.581	-	0.900	0.900	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>781.489</b>	<b>9.874</b>	<b>14.581</b>	-	<b>0.900</b>	<b>0.900</b>	-	-	-	-	<b>Continuing</b>	<b>Continuing</b>

*(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> )	-	9.964	9.505	-	69.231	69.231	-	-	-	-	Continuing	Continuing

**Description:**

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 5 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	991	1,534	0	13	13	-	-	-	-
	Total Obligation Authority	9.874	14.581	0.000	0.900	0.900	-	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>991</b>	<b>1,534</b>	<b>0</b>	<b>13</b>	<b>13</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Obligation Authority</b>	<b>9.874</b>	<b>14.581</b>	<b>-</b>	<b>0.900</b>	<b>0.900</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Justification:**

FY 2020 OCO procurement dollars in the amount of \$0.900 million supports COCOM requirement for unit equipment sets to deter potential adversaries and support European Deterrence Initiative (EDI). Funding will procure 13 M240Ls and requisite ancillary equipment and fielding.

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 2020 Army **Date:** March 2019

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

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	698	558	226	99	325	313	274	308	330	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	26.520	19.880	19.420	2.400	21.820	20.282	26.716	26.035	0.866	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	26.520	19.880	19.420	2.400	21.820	20.282	26.716	26.035	0.866	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	-	<b>26.520</b>	<b>19.880</b>	<b>19.420</b>	<b>2.400</b>	<b>21.820</b>	<b>20.282</b>	<b>26.716</b>	<b>26.035</b>	<b>0.866</b>	<b>Continuing</b>	<b>Continuing</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	-	37.994	35.627	85.929	24.242	67.138	64.799	97.504	84.529	2.624	Continuing	Continuing

**Description:**

The Multi-Role Anti-Armor/Anti-Personnel Weapon System (MAAWS) or, M3/M3A1 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/M3A1 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/M3A1 MAAWS is also capable of marking threat targets with smoke for supporting weapons, obscuring threat weapons and illuminating threat targets.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	
Army	Quantity	602	462	192	99	291	313	244	272	330
	Total Obligation Authority	22.873	16.461	16.468	2.400	18.868	20.282	23.730	23.280	0.866
ANG	Quantity	96	76	34	-	34	-	30	36	-
	Total Obligation Authority	3.647	2.707	2.952	-	2.952	-	2.986	2.755	-
AR	Quantity	-	20	-	-	-	-	-	-	-
	Total Obligation Authority	-	0.712	-	-	-	-	-	-	-
<b>Total:</b>	<b>Quantity</b>	<b>698</b>	<b>558</b>	<b>226</b>	<b>99</b>	<b>325</b>	<b>313</b>	<b>274</b>	<b>308</b>	<b>330</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>26.520</b>	<b>19.880</b>	<b>19.420</b>	<b>2.400</b>	<b>21.820</b>	<b>20.282</b>	<b>26.716</b>	<b>26.035</b>	<b>0.866</b>

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

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

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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		- / -	698 / 26.520	558 / 19.880	226 / 19.420	99 / 2.400	325 / 21.820
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / -</b>	<b>698 / 26.520</b>	<b>558 / 19.880</b>	<b>226 / 19.420</b>	<b>99 / 2.400</b>	<b>325 / 21.820</b>

\*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 2020 Base procurement dollars in the amount of \$19.420 million supports the Active Army and National Guard through the procurement of 227 M3A1 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/M3A1 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 2020 OCO procurement dollars in the amount of \$2.400 million supports the procurement and transport of 28 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: The correct quantity for FY 2018 is 349, FY 2019 is 306 and FY 2020 is 227.

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 3736G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM	<b>Item Number / Title [DODIC]:</b> G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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Resource Summary		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Procurement Quantity (Units in Each)	-	698	558	226	99	325	
Gross/Weapon System Cost (\$ in Millions)	-	26.520	19.880	19.420	2.400	21.820	
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	
Net Procurement (P-1) (\$ in Millions)	-	26.520	19.880	19.420	2.400	21.820	
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	
<b>Total Obligation Authority (\$ in Millions)</b>	-	<b>26.520</b>	<b>19.880</b>	<b>19.420</b>	<b>2.400</b>	<b>21.820</b>	

*(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)	-	37.994	35.627	85.929	24.242	67.138

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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)
<b>Hardware Cost</b>																		
Recurring Cost																		
M3A1 <sup>(†)</sup>	-	-	-	35.000	349	12.215	27.000	306	8.262	36.414	227	8.266	-	-	-	36.414	227	8.266
Fire Control <sup>(†)</sup>	-	-	-	29.000	349	10.121	27.000	306	8.262	34.048	227	7.729	-	-	-	34.048	227	7.729
Sub Caliber Adapter <sup>(†)</sup>	-	-	-	6.500	70	0.455	6.500	306	1.989	6.595	227	1.497	-	-	-	6.595	227	1.497
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	22.791	-	-	18.513	-	-	17.492	-	-	-	-	-	17.492
Non Recurring Cost																		
M3 OCO <sup>(†)</sup>	-	-	-	-	-	-	-	-	-	-	-	-	36.000	28	1.008	36.000	28	1.008
M3 OCO Fire Control <sup>(†)</sup>	-	-	-	-	-	-	-	-	-	-	-	-	34.000	28	0.952	34.000	28	0.952
M3 OCO Sub Caliber Adapter <sup>(†)</sup>	-	-	-	-	-	-	-	-	-	-	-	-	6.500	28	0.182	6.500	28	0.182
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.000	-	-	2.142	-	-	2.142
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	22.791	-	-	18.513	-	-	17.492	-	-	2.142	-	-	19.634
<b>Logistics Cost</b>																		
Recurring Cost																		
M3A1 Transport	-	-	-	-	-	-	-	-	-	-	-	0.035	-	-	-	-	-	0.035
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.035	-	-	-	-	-	0.035
Non Recurring Cost																		
M3 OCO Transport	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.024	-	-	0.024

LI 3736G13101 - MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL  
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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 3736G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM	<b>Item Number / Title [DODIC]:</b> G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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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 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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>	-	-	-	-	-	-	-	-	-	-	-	0.000	-	-	0.024	-	-	0.024
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.035	-	-	0.024	-	-	0.059
<b>Support - Contractor Logistics Support (CLS) Cost</b>																		
Oversight	-	-	-	-	-	-	-	-	0.188	-	-	0.241	-	-	0.030	-	-	0.271
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	-	-	-	-	-	-	0.188	-	-	0.241	-	-	0.030	-	-	0.271
<b>Support - Initial Spares and Repair Parts Cost</b>																		
Initial Spares and Repair Parts	-	-	-	-	-	1.479	-	-	0.389	-	-	0.511	-	-	0.064	-	-	0.575
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	-	-	-	1.479	-	-	0.389	-	-	0.511	-	-	0.064	-	-	0.575
<b>Support - New Equipment Training (NET) Cost</b>																		
Equipment	-	-	-	-	-	-	-	-	0.390	-	-	0.463	-	-	0.055	-	-	0.518
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	-	-	-	-	-	-	0.390	-	-	0.463	-	-	0.055	-	-	0.518
<b>Support - Program Management Cost</b>																		
Government Management	-	-	-	-	-	2.250	-	-	0.400	-	-	0.678	-	-	0.085	-	-	0.763
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	2.250	-	-	0.400	-	-	0.678	-	-	0.085	-	-	0.763
<b>Gross/Weapon System Cost</b>	-	-	-	37.994	698	26.520	35.627	558	19.880	85.929	226	19.420	24.242	99	2.400	67.138	325	21.820

**Remarks:**  
N/A

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	602	462	192	99	291
	Total Obligation Authority	22.873	16.461	16.468	2.400	18.868
ANG	Quantity	96	76	34	-	34
	Total Obligation Authority	3.647	2.707	2.952	-	2.952
AR	Quantity	-	20	-	-	-

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

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<b>Exhibit P-5, Cost Analysis:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 3736G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM	<b>Item Number / Title [DODIC]:</b> G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>				
<b>Secondary Distribution</b>		<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
	Total Obligation Authority	-	0.712	-	-	-
<b>Total:</b>	<b>Quantity</b>	<b>698</b>	<b>558</b>	<b>226</b>	<b>99</b>	<b>325</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>26.520</b>	<b>19.880</b>	<b>19.420</b>	<b>2.400</b>	<b>21.820</b>

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

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Exhibit P-5a, Procurement History and Planning: PB 2020 Army								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 02 / 10			P-1 Line Item Number / Title: 3736G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM					Item Number / Title [DODIC]: G13101 / MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON SYSTEM				
Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
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	306	27.000	Y		
M3A1		2020	Saab Dynamics AB / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Dec 2019	Apr 2020	227	36.414	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	306	27.000	Y		
Fire Control		2020	Aimpoint / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Dec 2019	Apr 2020	227	34.048	Y		
Sub Caliber Adapter		2018	Saab Dynamics AB / Sweden	SS / IDIQ	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	306	6.500	Y		
Sub Caliber Adapter		2020	Saab Dynamics AB / Sweden	SS / IDIQ	Naval Surface Warfare Center, Crane, IN	Dec 2019	Apr 2020	227	6.595	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 Fire Control	✓	2020	Aimpoint / Sweden	SS / IDIQ	ACC-NJ, Picatinny Arsenal, NJ	Dec 2019	Apr 2020	28	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		

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

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 4368G13800 / GUN AUTOMATIC 30MM M230
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	57	-	57	28	-	-	-	-	85
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	0.000	20.000	-	20.000	10.000	-	-	-	-	30.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	-	0.000	20.000	-	20.000	10.000	-	-	-	-	30.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	<b>0.000</b>	<b>20.000</b>	-	<b>20.000</b>	<b>10.000</b>	-	-	-	-	<b>30.000</b>

*(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> )	-	-	-	350.877	-	350.877	357.143	-	-	-	-	352.941

**Description:**

The XM914 autocannon is an upgraded and modified version of the M230 cannon currently equipped on the AH-64 Apache advanced attack helicopter. The XM914 modifies the aviation-based weapon for ground application and integration into a remote weapon station for vehicle platforms. The XM914 is a link-fed, externally-powered and electrically-primed 30mm chain gun, capable of firing two hundred rounds per minute. The weapon incorporates an anti-hangfire system and an extended barrel for enhanced muzzle velocity. The XM914 provides significant lethality improvements over legacy heavy machine guns, such as the M2 .50 caliber machine gun and the MK19 grenade machine gun, and provides the capability required for Soldiers in a combat environment to engage enemy personnel and lightly armored targets.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	57	-	57	28	-	-	-
	Total Obligation Authority	-	-	20.000	-	20.000	10.000	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	<b>57</b>	-	<b>57</b>	<b>28</b>	-	-	-
	<b>Total Obligation Authority</b>	-	-	<b>20.000</b>	-	<b>20.000</b>	<b>10.000</b>	-	-	-

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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:** 4368G13800 / GUN AUTOMATIC 30MM M230

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604601A **Other Related Program Elements:** N/A

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

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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	G13800 / GUN AUTOMATIC 30MM M230	P-5a, P-21	B		- / -	- / -	- / 0.000	57 / 20.000	- / -	57 / 20.000
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>57 / 20.000</b>	<b>- / -</b>	<b>57 / 20.000</b>

\*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 2020 Base procurement dollars in the amount of \$20.000 million supports the Active component of the Army by procuring fifty-seven (57) XM914 30mm autocannons. The XM914 provides significant lethality improvements over legacy heavy machine guns, such as the M2 .50 caliber machine gun and the MK19 grenade machine gun, and provides the capability required for Soldiers in a combat environment to engage enemy personnel and lightly armored targets.

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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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 4368G13800 / GUN AUTOMATIC 30MM M230	<b>Item Number / Title [DODIC]:</b> G13800 / GUN AUTOMATIC 30MM M230

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	57	-	57
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	0.000	20.000	-	20.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	-	0.000	20.000	-	20.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	<b>0.000</b>	<b>20.000</b>	-	<b>20.000</b>

*(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> )	-	-	-	350.877	-	350.877

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

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2018</b>			<b>FY 2019</b>			<b>FY 2020 Base</b>			<b>FY 2020 OCO</b>			<b>FY 2020 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
XM914 30mm Autocannon <sup>(†)</sup>	-	-	-	-	-	-	-	-	-	226.298	57	12.899	-	-	-	226.298	57	12.899
Initial Spares	-	-	-	-	-	-	-	-	-	-	-	2.166	-	-	-	-	-	2.166
Engineering Support	-	-	-	-	-	-	-	-	-	-	-	0.325	-	-	-	-	-	0.325
First Destination Transportation	-	-	-	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	0.050
Program Management	-	-	-	-	-	-	-	-	-	-	-	0.235	-	-	-	-	-	0.235
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	15.675	-	-	-	-	-	15.675
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	-	-	-	15.675	-	-	-	-	-	15.675
<b>Logistics Cost</b>																		
<b>Non Recurring Cost</b>																		
Contractor Logistics Support	-	-	-	-	-	-	-	-	-	-	-	4.275	-	-	-	-	-	4.275
New Equipment Training	-	-	-	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	0.050
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	4.325	-	-	-	-	-	4.325
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	-	-	-	4.325	-	-	-	-	-	4.325
<b>Gross/Weapon System Cost</b>	-	-	-	-	-	-	-	-	0.000	350.877	57	20.000	-	-	-	350.877	57	20.000

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<b>Exhibit P-5, Cost Analysis:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 4368G13800 / GUN AUTOMATIC 30MM M230	<b>Item Number / Title [DODIC]:</b> G13800 / GUN AUTOMATIC 30MM M230

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

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	-	-	57	-	57
	Total Obligation Authority	-	-	20.000	-	20.000
<b>Total:</b>	<b>Quantity</b>	-	-	<b>57</b>	-	<b>57</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	-	<b>0.000</b>	<b>20.000</b>	-	<b>20.000</b>

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

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2020 Army								<b>Date:</b> March 2019				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10			<b>P-1 Line Item Number / Title:</b> 4368G13800 / GUN AUTOMATIC 30MM M230					<b>Item Number / Title [DODIC]:</b> G13800 / GUN AUTOMATIC 30MM M230				
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ K)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
XM914 30mm Autocannon <sup>(†)</sup>		2020	ATK / Phoenix, AZ	SS / FFP	ACC-NJ, Picatinny Arsenal, NJ	Jan 2020	Nov 2020	57	226.298	N		

<sup>(†)</sup> indicates the presence of a P-21

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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army															<b>Date:</b> March 2019														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10										<b>P-1 Line Item Number / Title:</b> 4368G13800 / GUN AUTOMATIC 30MM M230										<b>Item Number / Title [DODIC]:</b> G13800 / GUN AUTOMATIC 30MM M230									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							O C T	N O V	D E C	J A N	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

XM914 30mm Autocannon																															
1	2020	ARMY		57	0	57				A	-	-	-	-	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5	5	2


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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10		<b>P-1 Line Item Number / Title:</b> 4368G13800 / GUN AUTOMATIC 30MM M230
		<b>Item Number / Title [DODIC]:</b> G13800 / GUN AUTOMATIC 30MM M230

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2022														Fiscal Year 2023														BALANCE
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022														Calendar Year 2023														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
XM914 30mm Autocannon																												0							
	1	2020	ARMY	57	55	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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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10		<b>P-1 Line Item Number / Title:</b> 4368G13800 / GUN AUTOMATIC 30MM M230
		<b>Item Number / Title [DODIC]:</b> G13800 / GUN AUTOMATIC 30MM M230

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2020	1-8-5 For 2020	MAX For 2020	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	ATK - Phoenix, AZ	5	10	40	10	3	10	13	10	3	10	13

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

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	1,547	-	-	-	-	-	-	-	-	1,547
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> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>395.544</b>	<b>-</b>	<b>22.330</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>417.874</b>

*(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> )	-	-	14.434	-	-	-	-	-	-	-	-	270.119

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	1,547	-	-	-	-	-	-	-
Total Obligation Authority	-	22.330	-	-	-	-	-	-	-
<b>Total: Secondary Distribution</b>									
Quantity	-	1,547	-	-	-	-	-	-	-
Total Obligation Authority	-	22.330	-	-	-	-	-	-	-

**Justification:**

FY 2020 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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	311	174	209	82	140	222	158	36	46	36	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	389.195	21.452	24.312	14.907	18.941	33.848	29.245	7.155	6.935	5.481	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	389.195	21.452	24.312	14.907	18.941	33.848	29.245	7.155	6.935	5.481	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>389.195</b>	<b>21.452</b>	<b>24.312</b>	<b>14.907</b>	<b>18.941</b>	<b>33.848</b>	<b>29.245</b>	<b>7.155</b>	<b>6.935</b>	<b>5.481</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	1,251.431	123.287	116.325	181.793	135.293	152.468	185.095	198.750	150.761	152.250	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 systems for Joint Light Tactical Vehicle (JTLV), 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	174	209	82	140	222	158	36	46	36
Total Obligation Authority	21.452	24.312	14.907	18.941	33.848	29.245	7.155	6.935	5.481
<b>Total:</b>	<b>174</b>	<b>209</b>	<b>82</b>	<b>140</b>	<b>222</b>	<b>158</b>	<b>36</b>	<b>46</b>	<b>36</b>
<b>Secondary Distribution</b>	<b>21.452</b>	<b>24.312</b>	<b>14.907</b>	<b>18.941</b>	<b>33.848</b>	<b>29.245</b>	<b>7.155</b>	<b>6.935</b>	<b>5.481</b>



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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	G02202 / Mtr Wpn Sys	P-5a	A		311 / 389.195	174 / 21.452	209 / 24.312	82 / 14.907	140 / 18.941	222 / 33.848
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>311 / 389.195</b>	<b>174 / 21.452</b>	<b>209 / 24.312</b>	<b>82 / 14.907</b>	<b>140 / 18.941</b>	<b>222 / 33.848</b>

\*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 2020 Base procurement dollars in the amount of \$14.907 million supports the procurement of 40 each M224A1 (60mm) mortar systems, 24 each M252A1 (81mm) mortar systems, and 18 each M120 (120mm) mortar systems including production support costs for the acquisition, engineering, warehousing/storage/staging, logistics, transportation, fielding and new equipment training of the mortar weapon systems. Funding is essential to fill shortages of US Army 60mm, 81mm, and 120mm mortar systems resulting from Army Reorganization of Infantry Brigade Combat Teams from two Battalions per Brigade to three Battalions per Brigade. In addition, the funds also support the procurement of 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 Joint Light Tactical Vehicle (JTLV).

FY 2020 Overseas Contingency Operations (OCO) procurement dollars in the amount of \$18.941 million supports the procurement of 7 each M224A1 (60mm) mortar systems, 26 each M252A1 (81mm) mortar systems, 58 each M120 (120mm) mortar systems, and 49 each M326 Mortar Stowage Kits 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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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>											<b>Date:</b> March 2019						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10						<b>P-1 Line Item Number / Title:</b> 6580G02200 / Mortar Systems					<b>Item Number / Title [DODIC]:</b> G02202 / Mtr Wpn Sys						
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A											<b>MDAP/MAIS Code:</b>						
<b>Resource Summary</b>				<b>Prior Years</b>		<b>FY 2018</b>		<b>FY 2019</b>		<b>FY 2020 Base</b>		<b>FY 2020 OCO</b>		<b>FY 2020 Total</b>			
Procurement Quantity (Units in Each)				311		174		209		82		140		222			
Gross/Weapon System Cost (\$ in Millions)				389.195		21.452		24.312		14.907		18.941		33.848			
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-			
Net Procurement (P-1) (\$ in Millions)				389.195		21.452		24.312		14.907		18.941		33.848			
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-			
<b>Total Obligation Authority (\$ in Millions)</b>				<b>389.195</b>		<b>21.452</b>		<b>24.312</b>		<b>14.907</b>		<b>18.941</b>		<b>33.848</b>			
<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)				1,251.431		123.287		116.325		181.793		135.293		152.468			

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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 <sup>(†)</sup>	31.432	175	5.501	-	-	-	30.261	22	0.666	35.000	40	1.400	35.000	7	0.245	35.000	47	1.645
60mm Mortar Component	31.614	175	5.532	-	-	-	58.431	22	1.285	60.184	40	2.407	60.184	7	0.421	60.184	47	2.829
60mm Mortar System <sup>(†)</sup>	21.611	175	3.782	-	-	-	21.611	22	0.475	22.259	40	0.890	22.259	7	0.156	22.259	47	1.046
81mm Cannon Tubes <sup>(†)</sup>	23.968	75	1.798	30.589	66	2.019	26.547	101	2.681	35.000	24	0.840	35.000	26	0.910	35.000	50	1.750
81mm Mortar Component	40.167	75	3.013	40.167	66	2.651	42.302	101	4.273	66.169	24	1.588	66.169	26	1.720	66.169	50	3.308
81mm Mortar System <sup>(†)</sup>	15.409	75	1.156	15.409	66	1.017	16.791	101	1.696	17.480	24	0.420	17.480	26	0.454	17.480	50	0.874
120mm Cannon Tubes <sup>(†)</sup>	26.645	58	1.545	32.049	100	3.205	34.193	63	2.154	40.000	18	0.720	40.000	58	2.320	40.000	76	3.040
120mm Mortar Component	20.270	58	1.176	14.781	100	1.478	15.270	63	0.962	23.598	18	0.425	23.598	58	1.369	23.598	76	1.793
120mm Mortar System <sup>(†)</sup>	49.156	58	2.851	48.908	100	4.891	49.156	63	3.097	53.744	18	0.967	53.744	58	3.117	53.744	76	4.085
M326 Mortar Stowage Kit <sup>(†)</sup>	-	-	-	98.664	4	0.395	98.664	23	2.269	-	-	-	103.169	49	5.055	103.169	49	5.055
<i>Subtotal: Recurring Cost</i>	-	-	26.353	-	-	15.655	-	-	19.559	-	-	9.657	-	-	15.768	-	-	25.426
<i>Subtotal: Hardware Cost</i>	-	-	26.353	-	-	15.655	-	-	19.559	-	-	9.657	-	-	15.768	-	-	25.426

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 6580G02200 / Mortar Systems	<b>Item Number / Title [DODIC]:</b> G02202 / Mtr Wpn Sys

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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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 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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																		
Government ILS	-	-	0.479	-	-	0.425	-	-	0.425	-	-	0.450	-	-	-	-	-	0.450
<i>Subtotal: Recurring Cost</i>	-	-	0.479	-	-	0.425	-	-	0.425	-	-	0.450	-	-	-	-	-	0.450
<i>Subtotal: Logistics Cost</i>	-	-	0.479	-	-	0.425	-	-	0.425	-	-	0.450	-	-	-	-	-	0.450
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	0.650	-	-	0.535	-	-	0.540	-	-	0.500	-	-	0.250	-	-	0.750
First Article Test	-	-	0.695	-	-	0.450	-	-	0.450	-	-	0.420	-	-	0.281	-	-	0.701
<i>Subtotal: Support - Acceptance Testing Cost</i>	-	-	1.345	-	-	0.985	-	-	0.990	-	-	0.920	-	-	0.531	-	-	1.451
Support - Fielding Cost																		
Fielding	-	-	0.623	-	-	0.500	-	-	0.500	-	-	0.500	-	-	0.500	-	-	1.000
<i>Subtotal: Support - Fielding Cost</i>	-	-	0.623	-	-	0.500	-	-	0.500	-	-	0.500	-	-	0.500	-	-	1.000
Support - Production Engineering Cost																		
Production Engineering	-	-	359.485	-	-	2.531	-	-	1.579	-	-	2.080	-	-	1.100	-	-	3.180
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	359.485	-	-	2.531	-	-	1.579	-	-	2.080	-	-	1.100	-	-	3.180
Support - Staging and Transportation Cost																		
Staging and Transportation	-	-	0.485	-	-	0.906	-	-	0.810	-	-	0.850	-	-	0.835	-	-	1.685
<i>Subtotal: Support - Staging and Transportation Cost</i>	-	-	0.485	-	-	0.906	-	-	0.810	-	-	0.850	-	-	0.835	-	-	1.685
Support - Training Cost																		
Services	-	-	0.425	-	-	0.450	-	-	0.450	-	-	0.450	-	-	0.206	-	-	0.656
<i>Subtotal: Support - Training Cost</i>	-	-	0.425	-	-	0.450	-	-	0.450	-	-	0.450	-	-	0.206	-	-	0.656
<b>Gross/Weapon System Cost</b>	<b>1,251.431</b>	<b>311</b>	<b>389.195</b>	<b>123.287</b>	<b>174</b>	<b>21.452</b>	<b>116.325</b>	<b>209</b>	<b>24.312</b>	<b>181.793</b>	<b>82</b>	<b>14.907</b>	<b>135.293</b>	<b>140</b>	<b>18.941</b>	<b>152.468</b>	<b>222</b>	<b>33.848</b>

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	174	209	82	140	222
	Total Obligation Authority	21.452	24.312	14.907	18.941	33.848
<b>Total:</b>	<b>Quantity</b>	<b>174</b>	<b>209</b>	<b>82</b>	<b>140</b>	<b>222</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>21.452</b>	<b>24.312</b>	<b>14.907</b>	<b>18.941</b>	<b>33.848</b>

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<b>Exhibit P-5, Cost Analysis:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 6580G02200 / Mortar Systems	<b>Item Number / Title [DODIC]:</b> G02202 / Mtr Wpn Sys
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>	

(†) indicates the presence of a P-5a

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**Exhibit P-5a, Procurement History and Planning: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 6580G02200 / Mortar Systems	<b>Item Number / Title [DODIC]:</b> 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		2017	Watervilet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2017	Oct 2017	175	31.432	Y		
60mm Cannon Tubes		2019	Watervilet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2019	Oct 2019	22	30.261	Y		
60mm Cannon Tubes		2020	Watervilet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2020	Oct 2020	47	35.000	Y		
60mm Mortar System		2017	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2017	Jul 2019	175	9.537	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	47	22.259	Y		
81mm Cannon Tubes		2017	Watervilet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2017	Oct 2017	75	23.968	Y		
81mm Cannon Tubes		2018	Watervilet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2018	Oct 2018	66	30.589	Y		
81mm Cannon Tubes		2019	Watervilet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2019	Oct 2019	101	26.547	Y		
81mm Cannon Tubes		2020	Watervilet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2020	Oct 2020	50	35.000	Y		
81mm Mortar System		2017	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2017	Jul 2019	75	63.402	Y		
81mm Mortar System		2018	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2018	Jul 2020	66	15.409	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	50	17.480	Y		
120mm Cannon Tubes		2017	Watervilet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2017	Oct 2017	58	26.645	Y		
120mm Cannon Tubes		2018	Watervilet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2018	Oct 2018	100	32.049	Y		
120mm Cannon Tubes		2019	Watervilet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2019	Oct 2019	63	34.193	Y		
120mm Cannon Tubes		2020	Watervilet Arsenal / Watervliet, NY	MIPR	Picatinny Arsenal, NJ	Feb 2020	Oct 2020	76	40.000	Y		
120mm Mortar System		2017	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2017	Jul 2019	58	49.156	Y		
120mm Mortar System		2018	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Mar 2018	Jul 2020	100	48.908	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	76	53.744	Y		
M326 Mortar Stowage Kit		2018	EFW Inc / Fort Worth, TX	Option / FFP	Picatinny Arsenal, NJ	Feb 2018	Mar 2019	4	98.664	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		

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

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

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	1,228	-	1	150	151	1,388	2,812	3,054	4,681	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	228.054	18.524	18.197	0.191	0.526	0.717	5.996	9.917	11.884	14.456	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	228.054	18.524	18.197	0.191	0.526	0.717	5.996	9.917	11.884	14.456	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>228.054</b>	<b>18.524</b>	<b>18.197</b>	<b>0.191</b>	<b>0.526</b>	<b>0.717</b>	<b>5.996</b>	<b>9.917</b>	<b>11.884</b>	<b>14.456</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	-	15.085	-	191.000	3.507	4.748	4.320	3.527	3.891	3.088	Continuing	Continuing

**Description:**

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 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, in order to support the air burst capability to be delivered by the new 40mm Family of Ammunition (FOA).

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	
Army	Quantity	1,228	-	1	150	151	1,388	2,812	3,054	4,681
	Total Obligation Authority	18.524	18.197	0.191	0.526	0.717	5.996	9.917	11.884	14.456
<b>Total:</b> Secondary Distribution	Quantity	<b>1,228</b>	<b>-</b>	<b>1</b>	<b>150</b>	<b>151</b>	<b>1,388</b>	<b>2,812</b>	<b>3,054</b>	<b>4,681</b>
	Total Obligation Authority	<b>18.524</b>	<b>18.197</b>	<b>0.191</b>	<b>0.526</b>	<b>0.717</b>	<b>5.996</b>	<b>9.917</b>	<b>11.884</b>	<b>14.456</b>

**Justification:**

FY 2020 Base procurement dollars in the amount of \$.191 million supports M320 Grenade Launcher Module (GLM) system fielding efforts and required engineering studies to address the need for a new leaf sight and improved butt stock and impending new follow on M320 contract efforts.

FY 2020 OCO procurement dollars in the amount of \$.526 million supports the procurement of 150 M320 Grenade Launcher Module (GLM) systems to support the European Deterrence Initiative (EDI/.505 million) and the Operation Inherent Resolve (OIR/.021 million)

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles		<b>P-1 Line Item Number / Title:</b> 8181G01501 / XM320 Grenade Launcher Module (GLM)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>The GLM provides deploying units an improved capability over the M203 grenade launcher and enables the Warfighter to more accurately engage the enemy in both daylight and darkness. The M320 is a safer, more reliable grenade launcher that reduces aiming error and increases first-round probability of hit. The M320 GLM 40mm ammunition is loaded from the side thus providing easier access and permitting use of a wider range of ammunition as compared to the M203, originally fielded beginning in the mid 1970s.</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> <p>AAO: 73,024</p> <p>P40 Quantity: The correct quantity for FY 2020 is 0.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 8190G01506 / Precision Sniper Rifle
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	379	-	379	472	553	281	229	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	-	7.977	-	7.977	10.147	12.112	6.292	5.218	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	-	-	7.977	-	7.977	10.147	12.112	6.292	5.218	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	-	<b>7.977</b>	-	<b>7.977</b>	<b>10.147</b>	<b>12.112</b>	<b>6.292</b>	<b>5.218</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	-	-	-	21.047	-	21.047	21.498	21.902	22.391	22.786	Continuing	Continuing

**Description:**

The 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 maximum effective range and probability of hit beyond the current M2010 (.300 WinMag) out to fifteen-hundred (1500) meters, which increases stand-off distances ensuring overmatch against enemy counter sniper engagements. This increased sniper capability enhances the sniper role in supporting combat operations and improves sniper survivability. The PSR also replaces the anti-material M107 (Cal .50) 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	332	-	332	335	350	57	229
	Total Obligation Authority	-	-	6.996	-	6.996	7.195	7.668	1.280	5.218
ANG	Quantity	-	-	47	-	47	137	203	216	-
	Total Obligation Authority	-	-	0.981	-	0.981	2.952	4.444	4.845	-
AR	Quantity	-	-	-	-	-	-	-	8	-
	Total Obligation Authority	-	-	-	-	-	-	-	0.167	-
<b>Total:</b>	<b>Quantity</b>	-	-	<b>379</b>	-	<b>379</b>	<b>472</b>	<b>553</b>	<b>281</b>	<b>229</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	-	-	<b>7.977</b>	-	<b>7.977</b>	<b>10.147</b>	<b>12.112</b>	<b>6.292</b>	<b>5.218</b>



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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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

**ID Code** (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604601A **Other Related Program Elements:** N/A

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

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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		- / -	- / -	- / -	379 / 7.977	- / -	379 / 7.977
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / -	- / -	- / -	<b>379 / 7.977</b>	- / -	<b>379 / 7.977</b>

\*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 2020 Base procurement dollars in the amount of \$7.977 million supports the Active Army through procurement of 446 Precision Sniper Rifle (PSR) Systems, including a direct view rifle scope (with fire control capabilities) and various support accessories. 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 Enhanced Sniper Rifle (ESR) configuration and an increased maximum effective range out to fifteen-hundred (1500) meters, which enhances the sniper role in supporting combat operations and improves sniper survivability. PSR is a New Start in FY2020.

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: 2,675

P40 Quantity: The correct quantity for FY 2020 is 446.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10		<b>P-1 Line Item Number / Title:</b> 8190G01506 / Precision Sniper Rifle
		<b>Item Number / Title [DODIC]:</b> G01506 / Precision Sniper Rifle

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Procurement Quantity (Units in Each)	-	-	-	379	-	379
Gross/Weapon System Cost (\$ in Millions)	-	-	-	7.977	-	7.977
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	-	7.977	-	7.977
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	-	-	-	<b>7.977</b>	-	<b>7.977</b>

*(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)	-	-	-	21.047	-	21.047

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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 <sup>(†)</sup>	-	-	-	-	-	-	-	-	-	15.000	446	6.690	-	-	-	15.000	446	6.690
Engineering Support	-	-	-	-	-	-	-	-	-	-	-	0.309	-	-	-	-	-	0.309
Integrated Logistics Support (ILS)	-	-	-	-	-	-	-	-	-	-	-	0.179	-	-	-	-	-	0.179
Total Package Fielding (TPF)	-	-	-	-	-	-	-	-	-	-	-	0.140	-	-	-	-	-	0.140
New Equipment Training (NET)	-	-	-	-	-	-	-	-	-	-	-	0.659	-	-	-	-	-	0.659
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	7.977	-	-	-	-	-	7.977
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	-	-	-	7.977	-	-	-	-	-	7.977
<b>Gross/Weapon System Cost</b>	-	-	-	-	-	-	-	-	-	<b>21.047</b>	<b>379</b>	<b>7.977</b>	-	-	-	<b>21.047</b>	<b>379</b>	<b>7.977</b>

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	-	-	332	-	332
	Total Obligation Authority	-	-	6.996	-	6.996

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**Exhibit P-5, Cost Analysis: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8190G01506 / Precision Sniper Rifle	<b>Item Number / Title [DODIC]:</b> G01506 / Precision Sniper Rifle
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**ID Code** (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
ANG	Quantity	-	-	47	-	47
	Total Obligation Authority	-	-	0.981	-	0.981
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	<b>379</b>	-	<b>379</b>
	<b>Total Obligation Authority</b>	-	-	<b>7.977</b>	-	<b>7.977</b>

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

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**Exhibit P-5a, Procurement History and Planning:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8190G01506 / Precision Sniper Rifle	<b>Item Number / Title [DODIC]:</b> 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	TBD / TBD	C / FFP	TBD	Jul 2020	Oct 2020	446	15.000	Y		

**Remarks:**  
The PSR will be a Non-Developmental Item (NDI)/Commercial Off-The-Shelf (COTS). Anticipating NDI/COTS solution; therefore, no P21 Form needed at this time.

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 8194G01507 / COMPACT SEMI-AUTOMATIC SNIPER SYSTEM
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	5,180	671	-	671	-	-	-	-	-	5,851
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	46.236	9.860	-	9.860	-	-	-	-	-	56.096
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	-	46.236	9.860	-	9.860	-	-	-	-	-	56.096
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	<b>46.236</b>	<b>9.860</b>	-	<b>9.860</b>	-	-	-	-	-	<b>56.096</b>

*(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> )	-	-	8.926	14.694	-	14.694	-	-	-	-	-	9.587

**Description:**

Brigade Combat Teams (BCT) require the capability to engage threat personnel with aimed lethal and accurate fires at ranges exceeding the current squad riflemen provided today. The Army is addressing longer range threats by procuring the Squad Designated Marksman Rifle (SDMR). The SDMR is intended to provide increased accuracy at longer ranges, giving infantry squads greater firepower and flexibility by engaging targets with precision fire. The Squad Designated Marksman Rifle will be a 7.62x51mm semi-automatic rifle with suppressor, optic, and additional authorized equipment.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	3,196	322	-	322	-	-	-	-
	Total Obligation Authority	-	28.527	4.732	-	4.732	-	-	-	-
ANG	Quantity	-	1,957	339	-	339	-	-	-	-
	Total Obligation Authority	-	17.468	4.981	-	4.981	-	-	-	-
AR	Quantity	-	27	10	-	10	-	-	-	-
	Total Obligation Authority	-	0.241	0.147	-	0.147	-	-	-	-
<b>Total:</b>	<b>Quantity</b>	-	<b>5,180</b>	<b>671</b>	-	<b>671</b>	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	-	<b>46.236</b>	<b>9.860</b>	-	<b>9.860</b>	-	-	-	-

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 8194G01507 / COMPACT SEMI-AUTOMATIC SNIPER SYSTEM
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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	G01507 / COMPACT SEMI-AUTOMATIC SNIPER SYSTEM	P-5a	B		- / -	- / -	5,180 / 46.236	671 / 9.860	- / -	671 / 9.860
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / -	- / -	<b>5,180 / 46.236</b>	<b>671 / 9.860</b>	- / -	<b>671 / 9.860</b>

\*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 2020 Base procurement dollars in the amount of \$9.860 million supports the procurement and fielding of 671 Squad Designated Marksman Rifle (SDMR), and fielding efforts for quantities purchased out of FY 2019 funding with delivery schedule starting in FY 2020. 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.

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: 6,640

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8194G01507 / COMPACT SEMI-AUTOMATIC SNIPER SYSTEM	<b>Item Number / Title [DODIC]:</b> G01507 / COMPACT SEMI-AUTOMATIC SNIPER SYSTEM

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Procurement Quantity (Units in Each)	-	-	5,180	671	-	671
Gross/Weapon System Cost (\$ in Millions)	-	-	46.236	9.860	-	9.860
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	46.236	9.860	-	9.860
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	-	-	<b>46.236</b>	<b>9.860</b>	-	<b>9.860</b>

*(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)	-	-	8.926	14.694	-	14.694

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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																		
SDM-Rifle contract hardware <sup>(f)</sup>	-	-	-	-	-	-	6.133	5,180	31.768	6.319	671	4.240	-	-	-	6.319	671	4.240
SDM-R optics (DLA) hardware	-	-	-	-	-	-	1.793	5,180	9.290	1.848	671	1.240	-	-	-	1.848	671	1.240
Transportation costs	-	-	-	-	-	-	-	-	0.024	-	-	0.030	-	-	-	-	-	0.030
SDM-R Technical Manuals	-	-	-	-	-	-	-	-	0.010	-	-	0.004	-	-	-	-	-	0.004
<b>Subtotal: Recurring Cost</b>	-	-	-	-	-	-	-	-	<b>41.091</b>	-	-	<b>5.514</b>	-	-	-	-	-	<b>5.514</b>
Non Recurring Cost																		
First Article Test	-	-	-	-	-	-	-	-	0.465	-	-	-	-	-	-	-	-	-
Full Material Release	-	-	-	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	0.050
<b>Subtotal: Non Recurring Cost</b>	-	-	-	-	-	-	-	-	<b>0.465</b>	-	-	<b>0.050</b>	-	-	-	-	-	<b>0.050</b>
<b>Subtotal: Flyaway Cost</b>	-	-	-	-	-	-	-	-	<b>41.556</b>	-	-	<b>5.564</b>	-	-	-	-	-	<b>5.564</b>
Support - Fielding Cost																		
Fielding	-	-	-	-	-	-	-	-	0.070	-	-	1.058	-	-	-	-	-	1.058
<b>Subtotal: Support - Fielding Cost</b>	-	-	-	-	-	-	-	-	<b>0.070</b>	-	-	<b>1.058</b>	-	-	-	-	-	<b>1.058</b>
Support - Logistics Cost																		
Integrated Logistics Support	-	-	-	-	-	-	-	-	0.153	-	-	0.478	-	-	-	-	-	0.478

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10		<b>P-1 Line Item Number / Title:</b> 8194G01507 / COMPACT SEMI-AUTOMATIC SNIPER SYSTEM
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
<b>Item Number / Title [DODIC]:</b> G01507 / COMPACT SEMI-AUTOMATIC SNIPER SYSTEM		

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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 - Logistics Cost</i>	-	-	-	-	-	-	-	-	0.153	-	-	0.478	-	-	-	-	-	0.478
<b>Support - New Equipment Training (NET) Cost</b>																		
Equipment	-	-	-	-	-	-	-	-	0.078	-	-	1.115	-	-	-	-	-	1.115
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	-	-	-	-	-	-	0.078	-	-	1.115	-	-	-	-	-	1.115
<b>Support - Program Management Cost</b>																		
Government Management	-	-	-	-	-	-	-	-	3.558	-	-	0.795	-	-	-	-	-	0.795
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	3.558	-	-	0.795	-	-	-	-	-	0.795
<b>Support - System Engineering Cost</b>																		
System Engineering	-	-	-	-	-	-	-	-	0.821	-	-	0.850	-	-	-	-	-	0.850
<i>Subtotal: Support - System Engineering Cost</i>	-	-	-	-	-	-	-	-	0.821	-	-	0.850	-	-	-	-	-	0.850
<b>Gross/Weapon System Cost</b>	-	-	-	-	-	-	8.926	5,180	46.236	14.694	671	9.860	-	-	-	14.694	671	9.860

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	-	3,196	322	-	322
	Total Obligation Authority	-	28.527	4.732	-	4.732
ANG	Quantity	-	1,957	339	-	339
	Total Obligation Authority	-	17.468	4.981	-	4.981
AR	Quantity	-	27	10	-	10
	Total Obligation Authority	-	0.241	0.147	-	0.147
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	<b>5,180</b>	<b>671</b>	-	<b>671</b>
	<b>Total Obligation Authority</b>	-	<b>46.236</b>	<b>9.860</b>	-	<b>9.860</b>

(†) indicates the presence of a P-5a



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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2020 Army							<b>Date:</b> March 2019				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10			<b>P-1 Line Item Number / Title:</b> 8194G01507 / COMPACT SEMI-AUTOMATIC SNIPER SYSTEM				<b>Item Number / Title [DODIC]:</b> G01507 / COMPACT SEMI-AUTOMATIC SNIPER SYSTEM				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
SDM-Rifle contract hardware		2019	Heckler & Koch Defense / Ashburn, VA	C / FFP	ACC-Picatinny, Picatinny, NJ	Jan 2019	Jan 2020	5,180	6.133	Y		
SDM-Rifle contract hardware		2020	Heckler & Koch Defense / Ashburn, VA	C / FFP	ACC-Picatinny, Picatinny, NJ	Jan 2020	Jan 2021	671	6.319	Y		

**Remarks:**  
The Squad Designated Marksman Rifle (SDMR) is a COTS/NDI solution, therefore, a P21 delivery schedule is not required.

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

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

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	53,103	65,876	95,445	36,868	1,815	38,683	638	-	-	-	-	253,745
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	132.924	43.150	69.606	30.331	1.183	31.514	7.883	4.345	-	-	-	289.422
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	132.924	43.150	69.606	30.331	1.183	31.514	7.883	4.345	-	-	-	289.422
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>132.924</b>	<b>43.150</b>	<b>69.606</b>	<b>30.331</b>	<b>1.183</b>	<b>31.514</b>	<b>7.883</b>	<b>4.345</b>	-	-	-	<b>289.422</b>
<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> )	2.503	0.655	0.729	0.823	0.652	0.815	12.356	-	-	-	-	1.141

**Description:**

This funding is used to procure M4A1 Carbines for the Army. 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. 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 combat optic, back-up iron sight, and the adapter rail system to attach accessories and components.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	11,448	56,891	0	1,815	1,815	638	-	-
	Total Obligation Authority	7.499	38.675	0.000	1.183	1.183	7.883	4.345	-
ANG	Quantity	29,183	13,520	17,327	-	17,327	-	-	-
	Total Obligation Authority	19.115	10.847	14.255	-	14.255	-	-	-
AR	Quantity	25,245	25,034	19,541	-	19,541	-	-	-
	Total Obligation Authority	16.536	20.084	16.076	-	16.076	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>65,876</b>	<b>95,445</b>	<b>36,868</b>	<b>1,815</b>	<b>38,683</b>	<b>638</b>	-	-
	<b>Total Obligation Authority</b>	<b>43.150</b>	<b>69.606</b>	<b>30.331</b>	<b>1.183</b>	<b>31.514</b>	<b>7.883</b>	<b>4.345</b>	-

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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, P-21	A		53,103 / 132.924	65,876 / 43.150	95,445 / 69.606	36,868 / 30.331	1,815 / 1.183	38,683 / 31.514
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>53,103 / 132.924</b>	<b>65,876 / 43.150</b>	<b>95,445 / 69.606</b>	<b>36,868 / 30.331</b>	<b>1,815 / 1.183</b>	<b>38,683 / 31.514</b>

\*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 2020 Base procurement dollars in the amount of \$30.331 million supports the procurement of 36,868 M4A1 Carbines with a backup iron sight, and adapter rail system. Funding also procures Improved Weapons Cleaning Kits (IWCK) which includes the 5.56 Enhanced Performance magazine (EPM) as a component. 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 purchase of the carbines enhances current capability allowing 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 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 and durability and maintains terminal performance of the M4 and M16 family of weapons.

FY 2020 OCO procurement dollars in the amount of \$1.183 million supports the European Deterrence Initiative (EDI/.719M) and the Operation Inherent Resolve (OIR/.464M). Funding will support the procurement of 1,815 M4A1 Carbines with a backup iron sight, and adapter rail system.

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: 845,563

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8201G13501 / Carbine	<b>Item Number / Title [DODIC]:</b> G13503 / M4A1 CARBINE

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Procurement Quantity (Units in Each)	53,103	65,876	95,445	36,868	1,815	38,683
Gross/Weapon System Cost (\$ in Millions)	132.924	43.150	69.606	30.331	1.183	31.514
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	132.924	43.150	69.606	30.331	1.183	31.514
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>132.924</b>	<b>43.150</b>	<b>69.606</b>	<b>30.331</b>	<b>1.183</b>	<b>31.514</b>

*(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)	2.503	0.655	0.729	0.823	0.652	0.815

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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 <sup>(†)</sup>	0.790	145,616	115.001	0.586	65,876	38.573	0.638	93,405	59.553	0.640	36,868	23.596	0.652	1,815	1.183	0.641	38,683	24.779
2. Colt's Royalty payment	-	-	1.349	-	-	0.370	-	-	0.753	-	-	0.265	-	-	-	-	-	0.265
6. M4A1 Technical Manuals	-	-	0.037	-	-	0.201	-	-	0.146	-	-	0.150	-	-	-	-	-	0.150
Transportation Cost	-	-	0.237	-	-	0.050	-	-	0.500	-	-	0.300	-	-	-	-	-	0.300
<i>Subtotal: Recurring Cost</i>	-	-	<i>116.660</i>	-	-	<i>39.224</i>	-	-	<i>60.991</i>	-	-	<i>24.311</i>	-	-	<i>1.183</i>	-	-	<i>25.494</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>116.660</i>	-	-	<i>39.224</i>	-	-	<i>60.991</i>	-	-	<i>24.311</i>	-	-	<i>1.183</i>	-	-	<i>25.494</i>
Package Fielding Cost																		
Recurring Cost																		
7. Total Package Fielding (TPF)	-	-	1.956	-	-	0.610	-	-	1.066	-	-	0.463	-	-	-	-	-	0.463
<i>Subtotal: Recurring Cost</i>	-	-	<i>1.956</i>	-	-	<i>0.610</i>	-	-	<i>1.066</i>	-	-	<i>0.463</i>	-	-	-	-	-	<i>0.463</i>
Non Recurring Cost																		
8. Integrated Logistics Support (ILS)	-	-	0.828	-	-	0.110	-	-	0.354	-	-	0.152	-	-	-	-	-	0.152
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.828</i>	-	-	<i>0.110</i>	-	-	<i>0.354</i>	-	-	<i>0.152</i>	-	-	-	-	-	<i>0.152</i>
<i>Subtotal: Package Fielding Cost</i>	-	-	<i>2.784</i>	-	-	<i>0.720</i>	-	-	<i>1.420</i>	-	-	<i>0.615</i>	-	-	-	-	-	<i>0.615</i>
Support - Program Management Cost																		

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>												<b>Date:</b> March 2019					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10						<b>P-1 Line Item Number / Title:</b> 8201G13501 / Carbine						<b>Item Number / Title [DODIC]:</b> G13503 / M4A1 CARBINE					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>					

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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	-	-	9.016	-	-	1.769	-	-	4.456	-	-	4.210	-	-	-	-	-	4.210
<i>Subtotal: Support - Program Management Cost</i>	-	-	<b>9.016</b>	-	-	<b>1.769</b>	-	-	<b>4.456</b>	-	-	<b>4.210</b>	-	-	-	-	-	<b>4.210</b>
Support - System Engineering Cost																		
System Engineering	-	-	4.478	-	-	1.437	-	-	2.739	-	-	1.195	-	-	-	-	-	1.195
<i>Subtotal: Support - System Engineering Cost</i>	-	-	<b>4.478</b>	-	-	<b>1.437</b>	-	-	<b>2.739</b>	-	-	<b>1.195</b>	-	-	-	-	-	<b>1.195</b>
<b>Gross/Weapon System Cost</b>	<b>2.503</b>	<b>53,103</b>	<b>132.924</b>	<b>0.655</b>	<b>65,876</b>	<b>43.150</b>	<b>0.729</b>	<b>95,445</b>	<b>69.606</b>	<b>0.823</b>	<b>36,868</b>	<b>30.331</b>	<b>0.652</b>	<b>1,815</b>	<b>1.183</b>	<b>0.815</b>	<b>38,683</b>	<b>31.514</b>

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	11,448	56,891	0	1,815	1,815
	Total Obligation Authority	7.499	38.675	0.000	1.183	1.183
ANG	Quantity	29,183	13,520	17,327	-	17,327
	Total Obligation Authority	19.115	10.847	14.255	-	14.255
AR	Quantity	25,245	25,034	19,541	-	19,541
	Total Obligation Authority	16.536	20.084	16.076	-	16.076
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>65,876</b>	<b>95,445</b>	<b>36,868</b>	<b>1,815</b>	<b>38,683</b>
	<b>Total Obligation Authority</b>	<b>43.150</b>	<b>69.606</b>	<b>30.331</b>	<b>1.183</b>	<b>31.514</b>

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

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**Exhibit P-5a, Procurement History and Planning: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8201G13501 / Carbine	<b>Item Number / Title [DODIC]:</b> 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 <sup>(†)</sup>		2015	FN Manufacturing / Columbia	C / FFP	ACC-TACOM, Warren, MI	Nov 2014	Oct 2016	17,992	0.640	Y		
1. M4A1 Carbine <sup>(†)</sup>		2017	FN Manufacturing / Columbia	C / FFP	ACC Picatinny, Picatinny, NJ	Dec 2016	Jun 2017	37,869	0.630	Y		
1. M4A1 Carbine <sup>(†)</sup>		2017	Colt / West Hartford	C / FFP	ACC Picatinny, Picatinny, NJ	Aug 2017	Jan 2018	15,234	0.620	Y		
1. M4A1 Carbine <sup>(†)</sup>		2018	FN Manufacturing / Columbia	C / FFP	ACC Picatinny, Picatinny, NJ	Dec 2017	Sep 2018	32,938	0.630	Y		
1. M4A1 Carbine <sup>(†)</sup>		2018	Colt / West Hartford	C / FFP	ACC Picatinny, Picatinny, NJ	Dec 2017	May 2018	32,938	0.630	Y		
1. M4A1 Carbine <sup>(†)</sup>		2019	FN Manufacturing / Columbia	C / FFP	ACC Picatinny, Picatinny, NJ	Dec 2018	May 2019	46,702	0.640	Y		
1. M4A1 Carbine <sup>(†)</sup>		2019	Colt / West Hartford	C / FFP	ACC Picatinny, Picatinny, NJ	Dec 2018	Apr 2019	46,703	0.640	Y		
1. M4A1 Carbine <sup>(†)</sup>		2020	FN Manufacturing / Columbia	C / FFP	ACC Picatinny, Picatinny, NJ	Dec 2019	May 2020	19,342	0.640	Y		
1. M4A1 Carbine <sup>(†)</sup>		2020	Colt / West Hartford	C / FFP	ACC Picatinny, Picatinny, NJ	Dec 2019	Apr 2020	19,341	0.640	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

FY 2015 yet to be delivered quantities: 13,733 M4A1 Carbines were procured under Delivery Order 0011 FN contract (W56HZV-13-D-0030). This delivery order was awarded in November 2014. The Army placed just two delivery orders on this contract (out of a total of 19). The Army was initially fifth (5th) and then eleventh (11th) in the queue with Other Service's orders in between; DO 0011 will start delivery in July of 2018 as stated on the contract.

The FY 2017 quantity of 37,869 alludes to two separate delivery orders under FN Manufacturing. 12,989 Delivery order awarded Dec 2016 and 24,880 Delivery order awarded Aug 31, 2017.

The FY 2018 quantities will be competed between vendors for each delivery order.

The FY2019 and 2020 projected quantities will be competed between vendors for each delivery order.

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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10		<b>P-1 Line Item Number / Title:</b> 8201G13501 / Carbine
		<b>Item Number / Title [DODIC]:</b> G13503 / M4A1 CARBINE

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2015												Fiscal Year 2016												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 4	BAL D U E A S O F 1 O C T	Calendar Year 2015												Calendar Year 2016												
							O C T	N O V	D E C	J A N	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
1. M4A1 Carbine																															
Prior Years Deliveries: 74521																															
	1	2015	ARMY	17.992	.000	17.992		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.992	
	1	2017	ARMY	37.869	.000	37.869																								37.869	
	2	2017	ARMY	15.234	.000	15.234																								15.234	
	2	2017	NAVY (+)	11.848	.000	11.848																								11.848	
	<b>2</b>	<b>2017</b>	<b>Total</b>	<b>27.082</b>	<b>.000</b>	<b>27.082</b>																								<b>27.082</b>	
	1	2018	AF (+)	.025	.000	.025																								.025	
	1	2018	ARMY	32.938	.000	32.938																								32.938	
	<b>1</b>	<b>2018</b>	<b>Total</b>	<b>32.963</b>	<b>.000</b>	<b>32.963</b>																								<b>32.963</b>	
	2	2018	ARMY	32.938	.000	32.938																								32.938	
	2	2018	NAVY (+)	1.800	.000	1.800																								1.800	
	<b>2</b>	<b>2018</b>	<b>Total</b>	<b>34.738</b>	<b>.000</b>	<b>34.738</b>																								<b>34.738</b>	
	1	2019	AF (+)	.025	.000	.025																								.025	
	1	2019	ARMY	46.702	.000	46.702																								46.702	
	1	2019	NAVY (+)	1.800	.000	1.800																								1.800	
	<b>1</b>	<b>2019</b>	<b>Total</b>	<b>48.527</b>	<b>.000</b>	<b>48.527</b>																								<b>48.527</b>	
	2	2019	ARMY	46.703	.000	46.703																								46.703	
	1	2020	ARMY	19.342	.000	19.342																								19.342	
	1	2020	NAVY (+)	4.190	.000	4.190																								4.190	
	<b>1</b>	<b>2020</b>	<b>Total</b>	<b>23.532</b>	<b>.000</b>	<b>23.532</b>																								<b>23.532</b>	
	2	2020	ARMY	19.341	.000	19.341																								19.341	
								O C T	N O V	D E C	J A N	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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8201G13501 / Carbine	<b>Item Number / Title [DODIC]:</b> G13503 / M4A1 CARBINE
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Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2017													Fiscal Year 2018													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017													Calendar Year 2018													
							O C T	N O V	D E C	J A N	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			
1. M4A1 Carbine																																	
Prior Years Deliveries: 74521																																	
	1	2015	ARMY	17.992	.000	17.992	4.220	-	.039	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.385	1.335	1.335	10.678		
	1	2017	ARMY	37.869	.000	37.869			A -	-	-	-	-	-	2.000	2.000	1.989	2.500	2.500	2.000	1.000	2.880	3.000	3.000	3.000	3.000	3.000	3.000	3.000		.000		
	2	2017	ARMY	15.234	.000	15.234											A -	-	-	-	-	2.000	2.000	2.000	2.000	2.000	2.000	2.000	1.234	-	.000		
	2	2017	NAVY (+)	11.848	.000	11.848											A -	-	-	-	-	1.000	1.750	1.200	1.000	1.000	2.000	1.000	1.050	1.848	.000		
	<b>2</b>	<b>2017</b>	<b>Total</b>	<b>27.082</b>	<b>.000</b>	<b>27.082</b>											-	-	-	-	-	<b>3.000</b>	<b>3.750</b>	<b>3.200</b>	<b>3.000</b>	<b>3.000</b>	<b>4.000</b>	<b>3.000</b>	<b>2.284</b>	<b>1.848</b>	<b>.000</b>		
	1	2018	AF (+)	.025	.000	.025															A -	-	-	-	-	-	.025	-	-	-	.000		
	1	2018	ARMY	32.938	.000	32.938															A -	-	-	-	-	-	-	-	-	2.688	30.250		
	<b>1</b>	<b>2018</b>	<b>Total</b>	<b>32.963</b>	<b>.000</b>	<b>32.963</b>															-	-	-	-	-	-	<b>.025</b>	-	-	<b>2.688</b>	<b>30.250</b>		
	2	2018	ARMY	32.938	.000	32.938															A -	-	-	-	-	-	2.838	2.750	2.750	2.750	2.750	19.100	
	2	2018	NAVY (+)	1.800	.000	1.800															A -	-	-	-	-	1.750	.050	-	-	-	.000		
	<b>2</b>	<b>2018</b>	<b>Total</b>	<b>34.738</b>	<b>.000</b>	<b>34.738</b>															-	-	-	-	<b>1.750</b>	<b>2.888</b>	<b>2.750</b>	<b>2.750</b>	<b>2.750</b>	<b>2.750</b>	<b>19.100</b>		
	1	2019	AF (+)	.025	.000	.025																									.025		
	1	2019	ARMY	46.702	.000	46.702																									46.702		
	1	2019	NAVY (+)	1.800	.000	1.800																									1.800		
	<b>1</b>	<b>2019</b>	<b>Total</b>	<b>48.527</b>	<b>.000</b>	<b>48.527</b>																									<b>48.527</b>		
	2	2019	ARMY	46.703	.000	46.703																									46.703		
	1	2020	ARMY	19.342	.000	19.342																									19.342		
	1	2020	NAVY (+)	4.190	.000	4.190																									4.190		
	<b>1</b>	<b>2020</b>	<b>Total</b>	<b>23.532</b>	<b>.000</b>	<b>23.532</b>																									<b>23.532</b>		
	2	2020	ARMY	19.341	.000	19.341																									19.341		



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**Exhibit P-21, Production Schedule: PB 2020 Army** **Date:** March 2019

**Appropriation / Budget Activity / Budget Sub Activity:** 2033A / 02 / 10 **P-1 Line Item Number / Title:** 8201G13501 / Carbine **Item Number / Title [DODIC]:** G13503 / M4A1 CARBINE

Cost Elements <i>(Units in Thousands)</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			
1. M4A1 Carbine																																	
Prior Years Deliveries: 74521																																	
	1	2015	ARMY	17.992	7.314	10.678	1.335	1.335	1.335	1.335	1.335	1.335	1.334	1.334																		.000	
	1	2017	ARMY	37.869	37.869	.000																										.000	
	2	2017	ARMY	15.234	15.234	.000																										.000	
	2	2017	NAVY (+)	11.848	11.848	.000																										.000	
	<b>2</b>	<b>2017</b>	<b>Total</b>	<b>27.082</b>	<b>27.082</b>	<b>.000</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>.000</b>	
	1	2018	AF (+)	.025	.025	.000																										.000	
	1	2018	ARMY	32.938	2.688	30.250	2.750	2.750	2.750	2.750	3.000	3.500	3.500	3.500	3.500	2.250																.000	
	<b>1</b>	<b>2018</b>	<b>Total</b>	<b>32.963</b>	<b>2.713</b>	<b>30.250</b>	<b>2.750</b>	<b>2.750</b>	<b>2.750</b>	<b>2.750</b>	<b>3.000</b>	<b>3.500</b>	<b>3.500</b>	<b>3.500</b>	<b>3.500</b>	<b>2.250</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>.000</b>	
	2	2018	ARMY	32.938	13.838	19.100	2.750	2.750	3.400	3.400	3.400	3.400																				.000	
	2	2018	NAVY (+)	1.800	1.800	.000	-	-	-	-	-	-																				.000	
	<b>2</b>	<b>2018</b>	<b>Total</b>	<b>34.738</b>	<b>15.638</b>	<b>19.100</b>	<b>2.750</b>	<b>2.750</b>	<b>3.400</b>	<b>3.400</b>	<b>3.400</b>	<b>3.400</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>.000</b>	
	1	2019	AF (+)	.025	.000	.025			A -	-	-	-	-	-	.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		.000	
	1	2019	ARMY	46.702	.000	46.702			A -	-	-	-	-	-	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.804	1.120		.000		
	1	2019	NAVY (+)	1.800	.000	1.800			A -	-	-	-	-	1.000	.800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		.000	
	<b>1</b>	<b>2019</b>	<b>Total</b>	<b>48.527</b>	<b>.000</b>	<b>48.527</b>			-	-	-	-	-	<b>1.000</b>	<b>4.598</b>	<b>3.823</b>	<b>3.798</b>	<b>3.798</b>	<b>3.798</b>	<b>3.798</b>	<b>3.798</b>	<b>3.798</b>	<b>3.798</b>	<b>3.798</b>	<b>3.798</b>	<b>3.798</b>	<b>3.804</b>	<b>1.120</b>	-	-	-	<b>.000</b>	
	2	2019	ARMY	46.703	.000	46.703			A -	-	-	-	-	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.798	3.805	1.120				.000		
	1	2020	ARMY	19.342	.000	19.342															A -	-	-	-	-	-	3.079	3.805	3.805	3.805	3.805	4.848	.000
	1	2020	NAVY (+)	4.190	.000	4.190															A -	-	-	-	-	1.700	1.700	.790	-	-	-	.000	
	<b>1</b>	<b>2020</b>	<b>Total</b>	<b>23.532</b>	<b>.000</b>	<b>23.532</b>															-	-	-	-	-	<b>1.700</b>	<b>4.779</b>	<b>4.595</b>	<b>3.805</b>	<b>3.805</b>	<b>4.848</b>	<b>.000</b>	
	2	2020	ARMY	19.341	.000	19.341															A -	-	-	-	-	2.881	3.805	3.805	3.805	3.805	1.240	.000	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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**Exhibit P-21, Production Schedule:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8201G13501 / Carbine	<b>Item Number / Title [DODIC]:</b> G13503 / M4A1 CARBINE
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2020	1-8-5 For 2020	MAX For 2020	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	FN Manufacturing - Columbia	1,000	5,000	8,000	6	2	9	11	6	2	5	7
2	Colt - West Hartford	1,000	3,000	6,000	6	2	8	10	6	2	4	6

(‡) 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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 8212G17200 / Small Arms - Fire Control
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> 0604601A
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**Line Item MDAP/MAIS Code:** III

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	431	-	431	620	2,234	6,984	7,792	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	0.000	8.060	-	8.060	12.230	27.060	59.020	66.410	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	-	0.000	8.060	-	8.060	12.230	27.060	59.020	66.410	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	<b>0.000</b>	<b>8.060</b>	-	<b>8.060</b>	<b>12.230</b>	<b>27.060</b>	<b>59.020</b>	<b>66.410</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	-	-	-	18.701	-	18.701	19.726	12.113	8.451	8.523	Continuing	Continuing

**Description:**

Small Arms Fire Control (SAFC) will optimize fire control devices to support small arms weapon systems. SAFC will increase the probability of hit and decrease time to engage across a range of small arms weapon systems, with a direct-view optic that allows for quicker and more accurate target detection and recognition. The SAFC shall utilize an open system of systems architecture comprised of modular components, to deliver current ground forces the initial increased core capability followed by increasing increments of capability/enhancements over time. Small Arms Fire Control will culminate in multiple configurations. They may include technology such as variable magnification direct view (day) optics, atmospheric sensors, an overlaid digital display, weapon orientation sensor, range determination, ballistic computer, disturbed reticle, and networked lethality.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	431	-	431	620	2,234	6,984	7,792
	Total Obligation Authority	-	-	8.060	-	8.060	12.230	27.060	59.020	66.410
<b>Total:</b> Secondary Distribution	<b>Quantity</b>	-	-	<b>431</b>	-	<b>431</b>	<b>620</b>	<b>2,234</b>	<b>6,984</b>	<b>7,792</b>
	<b>Total Obligation Authority</b>	-	-	<b>8.060</b>	-	<b>8.060</b>	<b>12.230</b>	<b>27.060</b>	<b>59.020</b>	<b>66.410</b>

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 8212G17200 / Small Arms - Fire Control
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> 0604601A
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**Line Item MDAP/MAIS Code:** III

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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	G17201 / Squad SA-FC	P-5a, P-21	B		- / -	- / -	- / -	431 / 8.060	- / -	431 / 8.060
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / -	- / -	- / 0.000	<b>431 / 8.060</b>	- / -	<b>431 / 8.060</b>

\*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 2020 Base procurement dollars in the amount of \$8.060 million supports the procurement and fielding of 431 Small Arms Fire Controls (SAFC). The SAFC will have both close quarter and extended range capabilities and is intended for use with both the Next Generation Squad Weapon-Rifle and the Next Generation Squad Automatic-Rifle. The SAFC will increase the probability of hit and decrease time to engage across a range of small arms weapon systems, with a direct-view optic that allows for quicker and more accurate target detection and recognition.

The Squad SAFC is a new start in FY 2020.

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 Program Objective: 188,698

This program supports the Cross Functional Team (CFT).

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>						<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10			<b>P-1 Line Item Number / Title:</b> 8212G17200 / Small Arms - Fire Control			<b>Item Number / Title [DODIC]:</b> G17201 / Squad SA-FC		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>				
<b>Resource Summary</b>			<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
Procurement Quantity (Units in Each)			-	-	-	431	-	431
Gross/Weapon System Cost (\$ in Millions)			-	-	-	8.060	-	8.060
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			-	-	-	8.060	-	8.060
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>			-	-	-	<b>8.060</b>	-	<b>8.060</b>
<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)			-	-	-	18.701	-	18.701

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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)
<b>Hardware Cost</b>																		
Recurring Cost																		
Squad Fire Control Systems <sup>(†)</sup>	-	-	-	-	-	-	-	-	-	15.629	431	6.736	-	-	-	15.629	431	6.736
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	6.736	-	-	-	-	-	6.736
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	-	-	-	6.736	-	-	-	-	-	6.736
<b>Support - Data Cost</b>																		
Engineering Data	-	-	-	-	-	-	-	-	-	-	-	0.484	-	-	-	-	-	0.484
Technical Publications	-	-	-	-	-	-	-	-	-	-	-	0.024	-	-	-	-	-	0.024
<i>Subtotal: Support - Data Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.508	-	-	-	-	-	0.508
<b>Support - Engineering Change Proposals Cost</b>																		
Engineering Change Proposals	-	-	-	-	-	-	-	-	-	-	-	0.342	-	-	-	-	-	0.342
<i>Subtotal: Support - Engineering Change Proposals Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.342	-	-	-	-	-	0.342
<b>Support - Fielding Cost</b>																		
Fielding	-	-	-	-	-	-	-	-	-	-	-	0.030	-	-	-	-	-	0.030
<i>Subtotal: Support - Fielding Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.030	-	-	-	-	-	0.030
<b>Support - New Equipment Training (NET) Cost</b>																		
Equipment	-	-	-	-	-	-	-	-	-	-	-	0.112	-	-	-	-	-	0.112

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>												<b>Date:</b> March 2019					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10						<b>P-1 Line Item Number / Title:</b> 8212G17200 / Small Arms - Fire Control						<b>Item Number / Title [DODIC]:</b> G17201 / Squad SA-FC					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B												<b>MDAP/MAIS Code:</b>					

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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>	-	-	-	-	-	-	-	-	-	-	-	0.112	-	-	-	-	-	0.112
Support - System Engineering Cost																		
System Engineering	-	-	-	-	-	-	-	-	-	-	-	0.332	-	-	-	-	-	0.332
<i>Subtotal: Support - System Engineering Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.332	-	-	-	-	-	0.332
<b>Gross/Weapon System Cost</b>	-	-	-	-	-	-	-	-	-	18.701	431	8.060	-	-	-	18.701	431	8.060

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	-	-	431	-	431
	Total Obligation Authority	-	-	8.060	-	8.060
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	<b>431</b>	-	<b>431</b>
	<b>Total Obligation Authority</b>	-	-	<b>8.060</b>	-	<b>8.060</b>

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

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2020 Army								<b>Date:</b> March 2019				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10			<b>P-1 Line Item Number / Title:</b> 8212G17200 / Small Arms - Fire Control					<b>Item Number / Title [DODIC]:</b> G17201 / Squad SA-FC				
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ K)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
Squad Fire Control Systems <sup>(†)</sup>		2020	TBD / TBD	TBD	ACC-NJ, Picatinny Arsenal, NJ	Aug 2020	Dec 2020	431	15.629	N		

<sup>(†)</sup> indicates the presence of a P-21

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**Exhibit P-21, Production Schedule:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8212G17200 / Small Arms - Fire Control	<b>Item Number / Title [DODIC]:</b> G17201 / Squad SA-FC
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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							
Squad Fire Control Systems																																					
	1	2020	ARMY	431	0	431																								A	-	-	-	-	431		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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<b>Exhibit P-21, Production Schedule:</b> PB 2020 Army	<b>Date:</b> March 2019
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8212G17200 / Small Arms - Fire Control	<b>Item Number / Title [DODIC]:</b> G17201 / Squad SA-FC
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2020	1-8-5 For 2020	MAX For 2020	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 - TBD	100	1,000	5,000	6	10	4	14	6	3	4	7

"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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 8310G04700 / Common Remotely Operated Weapons Station
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	2,264.729	22.250	39.346	24.007	4.182	28.189	24.560	-	-	-	-	2,379.074
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	2,264.729	22.250	39.346	24.007	4.182	28.189	24.560	-	-	-	-	2,379.074
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>2,264.729</b>	<b>22.250</b>	<b>39.346</b>	<b>24.007</b>	<b>4.182</b>	<b>28.189</b>	<b>24.560</b>	-	-	-	-	<b>2,379.074</b>

*(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> )	-	285.256	234.202	-	-	-	-	-	-	-	-	9,671.033

**Description:**

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, Stinger and 30mm cannon) 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	22.250	39.346	24.007	4.182	28.189	24.560	-	-	-
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	22.250	39.346	24.007	4.182	28.189	24.560	-	-	-

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 8310G04700 / Common Remotely Operated Weapons Station
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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		- / 2,264.729	- / 22.250	- / 39.346	- / 24.007	- / 4.182	- / 28.189
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 2,264.729</b>	<b>- / 22.250</b>	<b>- / 39.346</b>	<b>- / 24.007</b>	<b>- / 4.182</b>	<b>- / 28.189</b>

\*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 2020 Base procurement dollars in the amount of \$24.007 million supports the Active Army by procuring and converting CROWS systems to the current configuration for fielding. Funds also procure platform integration kits, appended trainers, diagnostic kits, and other ancillary equipment to support ongoing fielding to Active Army units.

FY 2020 OCO procurement dollars in the amount of \$4.182 million supports COCOM requirement for unit equipment sets to deter potential adversaries and support European Deterrence Initiative (EDI). Funding will procure hardware and repair parts.

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.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8310G04700 / Common Remotely Operated Weapons Station	<b>Item Number / Title [DODIC]:</b> G04700 / Common Remotely Operated Weapons Station

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,264.729	22.250	39.346	24.007	4.182	28.189
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	2,264.729	22.250	39.346	24.007	4.182	28.189
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>2,264.729</b>	<b>22.250</b>	<b>39.346</b>	<b>24.007</b>	<b>4.182</b>	<b>28.189</b>

*(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)	-	285.256	234.202	-	-	-

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

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2018</b>			<b>FY 2019</b>			<b>FY 2020 Base</b>			<b>FY 2020 OCO</b>			<b>FY 2020 Total</b>		
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
<b>Flyaway Cost</b>																		
<b>Recurring Cost</b>																		
CROWS system	-	-	1,731.151	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CROWS Post-Production conversion	33.349	545	18.175	-	-	-	25.000	20	0.500	-	-	-	-	-	-	-	-	-
Platform Integration Kits <sup>(†)</sup>	70.183	770	54.041	9.742	260	2.533	15.986	146	2.334	16.338	225	3.676	-	-	16.338	225	3.676	
Appended Trainers	16.947	720	12.202	11.727	220	2.580	-	-	-	11.660	97	1.131	-	-	11.660	97	1.131	
Diagnostic Kits	128.750	52	6.695	48.148	108	5.200	49.303	142	7.001	50.671	73	3.699	-	-	50.671	73	3.699	
Engineering Support	-	-	113.249	-	-	1.200	-	-	3.261	-	-	1.916	-	-	-	-	-	1.916
Program Management Support	-	-	28.474	-	-	0.050	-	-	0.075	-	-	0.075	-	-	-	-	-	0.075
Integrated Logistics Support	-	-	48.401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Package Fielding	-	-	77.546	-	-	0.294	-	-	2.000	-	-	6.400	-	-	-	-	-	6.400
Contractor Field Service Representatives	-	-	24.896	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
First Destination Transportation	-	-	4.079	-	-	-	-	-	0.376	-	-	0.150	-	-	-	-	-	0.150
Spares/Repair Parts	-	-	103.717	-	-	-	-	-	-	-	-	1.280	-	-	4.182	-	-	5.462
New Equipment Training	-	-	42.103	-	-	0.393	-	-	-	-	-	2.280	-	-	-	-	-	2.280

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10		<b>P-1 Line Item Number / Title:</b> 8310G04700 / Common Remotely Operated Weapons Station
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<b>Item Number / Title [DODIC]:</b> G04700 / Common Remotely Operated Weapons Station		

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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)
CROWS Technology Refresh	-	-	-	-	-	-	-	-	1.238	-	-	3.400	-	-	-	-	-	3.400
<i>Subtotal: Recurring Cost</i>	-	-	2,264.729	-	-	12.250	-	-	16.785	-	-	24.007	-	-	4.182	-	-	28.189
Non Recurring Cost																		
CROWS XM914 Integration	-	-	-	-	-	10.000	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	22.561	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	10.000	-	-	22.561	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	2,264.729	-	-	22.250	-	-	39.346	-	-	24.007	-	-	4.182	-	-	28.189
<b>Gross/Weapon System Cost</b>	-	-	2,264.729	285.256	-	22.250	234.202	-	39.346	-	-	24.007	-	-	4.182	-	-	28.189

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	22.250	39.346	24.007	4.182	28.189
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-
	<b>Total Obligation Authority</b>	22.250	39.346	24.007	4.182	28.189

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2020 Army								<b>Date:</b> March 2019				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10			<b>P-1 Line Item Number / Title:</b> 8310G04700 / Common Remotely Operated Weapons Station					<b>Item Number / Title [DODIC]:</b> G04700 / Common Remotely Operated Weapons Station				
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ K)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
Platform Integration Kits		2018	Choctaw Manufacturing Defense / Antlers, OK	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	Aug 2018	Feb 2019	260	9.742	Y		
Platform Integration Kits		2019	TBD / TBD	C / FFP	ACC-NJ, Picatinny Arsenal, NJ	May 2019	Nov 2019	146	15.986	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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 8635G15325 / Handgun
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	5,900	31,756	193,930	50	1,409	1,459	1,409	-	-	-	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	2.240	8.326	48.251	6.174	0.248	6.422	4.915	5.131	-	-	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	2.240	8.326	48.251	6.174	0.248	6.422	4.915	5.131	-	-	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>2.240</b>	<b>8.326</b>	<b>48.251</b>	<b>6.174</b>	<b>0.248</b>	<b>6.422</b>	<b>4.915</b>	<b>5.131</b>	-	-	<b>Continuing</b>	<b>Continuing</b>

*(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> )	0.380	0.262	0.249	123.480	0.176	4.402	3.488	-	-	-	Continuing	Continuing

**Description:**

Currently the M9 Pistol is utilized as the Department of Defense's personal defense weapon. The new M17 and M18 Full and Compact Modular Handgun Systems (MHS) will replace both the M9 and 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 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	19,334	119,188	50	1,409	1,459	1,409	-	-	-
	Total Obligation Authority	5.069	29.655	6.174	0.248	6.422	4.915	5.131	-	-
ANG	Quantity	8,812	53,077	-	-	-	-	-	-	-
	Total Obligation Authority	2.310	13.206	-	-	-	-	-	-	-
AR	Quantity	3,610	21,665	-	-	-	-	-	-	-
	Total Obligation Authority	0.947	5.390	-	-	-	-	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>31,756</b>	<b>193,930</b>	<b>50</b>	<b>1,409</b>	<b>1,459</b>	<b>1,409</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Obligation Authority</b>	<b>8.326</b>	<b>48.251</b>	<b>6.174</b>	<b>0.248</b>	<b>6.422</b>	<b>4.915</b>	<b>5.131</b>	<b>-</b>	<b>-</b>

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**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

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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	G15325 / Handgun	P-5a	A		5,900 / 2.240	31,756 / 8.326	193,930 / 48.251	50 / 6.174	1,409 / 0.248	1,459 / 6.422
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>5,900 / 2.240</b>	<b>31,756 / 8.326</b>	<b>193,930 / 48.251</b>	<b>50 / 6.174</b>	<b>1,409 / 0.248</b>	<b>1,459 / 6.422</b>

\*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 2020 Base procurement dollars in the amount of \$6.174 million supports the procurement of 50 General Official (GO) Pistols and the fielding of the Modular Handgun Weapon Systems (MHS) consisting of the Full, Compact and GO variants, MHS floats, magazines, pouches, blank and marking round conversion kits, suppressor kits and other accessories. 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).

FY 2020 OCO procurement dollars in the amount of \$0.248 million supports the procurement of 1,409 MHS 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: 233,429



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8635G15325 / Handgun	<b>Item Number / Title [DODIC]:</b> G15325 / Handgun

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	5,900	31,756	193,930	50	1,409	1,459
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	2.240	8.326	48.251	6.174	0.248	6.422
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	2.240	8.326	48.251	6.174	0.248	6.422
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>2.240</b>	<b>8.326</b>	<b>48.251</b>	<b>6.174</b>	<b>0.248</b>	<b>6.422</b>

*(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> )	0.380	0.262	0.249	123.480	0.176	4.402

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

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2018</b>			<b>FY 2019</b>			<b>FY 2020 Base</b>			<b>FY 2020 OCO</b>			<b>FY 2020 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
<b>Hardware Cost</b>																		
Recurring Cost																		
M17 & M18 Modular Handgun System <sup>(†)</sup>	0.176	7,643	1.345	0.174	31,507	5.482	0.174	193,830	33.726	-	-	-	0.176	1,409	0.248	0.176	1,409	0.248
GO Pistol	0.275	451	0.124	-	-	0.068	0.280	100	0.028	0.280	50	0.014	-	-	-	0.280	50	0.014
Accessories	-	-	-	-	-	0.023	-	-	2.389	-	-	-	-	-	-	-	-	-
Associated Items of Equipment	-	-	-	-	-	0.061	-	-	6.992	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1.469	-	-	5.634	-	-	43.135	-	-	0.014	-	-	0.248	-	-	0.262
<i>Subtotal: Hardware Cost</i>	-	-	1.469	-	-	5.634	-	-	43.135	-	-	0.014	-	-	0.248	-	-	0.262
<b>Package Fielding Cost</b>																		
Recurring Cost																		
Total Package Fielding	-	-	0.150	-	-	-	-	-	1.267	-	-	1.550	-	-	-	-	-	1.550
<i>Subtotal: Recurring Cost</i>	-	-	0.150	-	-	-	-	-	1.267	-	-	1.550	-	-	-	-	-	1.550
<i>Subtotal: Package Fielding Cost</i>	-	-	0.150	-	-	-	-	-	1.267	-	-	1.550	-	-	-	-	-	1.550
<b>Logistics Cost</b>																		
Recurring Cost																		
Integrated Logistics Support (ILS)	-	-	-	-	-	0.344	-	-	0.290	-	-	0.358	-	-	-	-	-	0.358
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	0.344	-	-	0.290	-	-	0.358	-	-	-	-	-	0.358
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	0.344	-	-	0.290	-	-	0.358	-	-	-	-	-	0.358
<b>Support - Acceptance Testing Cost</b>																		

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>												<b>Date:</b> March 2019					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10						<b>P-1 Line Item Number / Title:</b> 8635G15325 / Handgun						<b>Item Number / Title [DODIC]:</b> G15325 / Handgun					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>					

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

Cost Elements	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 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)
First Article Test	-	-	0.015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Acceptance Testing Cost</i>	-	-	<b>0.015</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Data Cost																		
Technical Publications	-	-	-	-	-	0.037	-	-	0.248	-	-	0.306	-	-	-	-	-	0.306
<i>Subtotal: Support - Data Cost</i>	-	-	-	-	-	<b>0.037</b>	-	-	<b>0.248</b>	-	-	<b>0.306</b>	-	-	-	-	-	<b>0.306</b>
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	0.075	-	-	0.956	-	-	0.125	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	<b>0.075</b>	-	-	<b>0.956</b>	-	-	<b>0.125</b>	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Government Management	-	-	0.251	-	-	0.950	-	-	1.459	-	-	1.815	-	-	-	-	-	1.815
<i>Subtotal: Support - Program Management Cost</i>	-	-	<b>0.251</b>	-	-	<b>0.950</b>	-	-	<b>1.459</b>	-	-	<b>1.815</b>	-	-	-	-	-	<b>1.815</b>
Support - System Engineering Cost																		
System Engineering	-	-	-	-	-	0.295	-	-	1.005	-	-	1.240	-	-	-	-	-	1.240
<i>Subtotal: Support - System Engineering Cost</i>	-	-	-	-	-	<b>0.295</b>	-	-	<b>1.005</b>	-	-	<b>1.240</b>	-	-	-	-	-	<b>1.240</b>
Support - Training Cost																		
Equipment	-	-	0.280	-	-	0.110	-	-	0.722	-	-	0.891	-	-	-	-	-	0.891
<i>Subtotal: Support - Training Cost</i>	-	-	<b>0.280</b>	-	-	<b>0.110</b>	-	-	<b>0.722</b>	-	-	<b>0.891</b>	-	-	-	-	-	<b>0.891</b>
<b>Gross/Weapon System Cost</b>	<b>0.380</b>	<b>5,900</b>	<b>2.240</b>	<b>0.262</b>	<b>31,756</b>	<b>8.326</b>	<b>0.249</b>	<b>193,930</b>	<b>48.251</b>	<b>123.480</b>	<b>50</b>	<b>6.174</b>	<b>0.176</b>	<b>1,409</b>	<b>0.248</b>	<b>4.402</b>	<b>1,459</b>	<b>6.422</b>

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Army	Quantity	19,334	119,188	50	1,409	1,459
	Total Obligation Authority	5.069	29.655	6.174	0.248	6.422
ANG	Quantity	8,812	53,077	-	-	-
	Total Obligation Authority	2.310	13.206	-	-	-
AR	Quantity	3,610	21,665	-	-	-
	Total Obligation Authority	0.947	5.390	-	-	-
<b>Total:</b>	<b>Quantity</b>	<b>31,756</b>	<b>193,930</b>	<b>50</b>	<b>1,409</b>	<b>1,459</b>

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<b>Exhibit P-5, Cost Analysis: PB 2020 Army</b>				<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10		<b>P-1 Line Item Number / Title:</b> 8635G15325 / Handgun		<b>Item Number / Title [DODIC]:</b> G15325 / Handgun		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A			<b>MDAP/MAIS Code:</b>			
<b>Secondary Distribution</b>		<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	8.326	48.251	6.174	0.248	6.422

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

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**Exhibit P-5a, Procurement History and Planning:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 10	<b>P-1 Line Item Number / Title:</b> 8635G15325 / Handgun	<b>Item Number / Title [DODIC]:</b> G15325 / Handgun
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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
M17 & M18 Modular Handgun System		2017	SIG SAUER, INC / NEWINGTON, NH	Option / FFP	ACC-NJ, Picatinny Arsenal, NJ	Jun 2017	Aug 2017	7,643	0.180	Y		
M17 & M18 Modular Handgun System		2018	SIG SAUER, INC / NEWINGTON, NH	Option / FFP	ACC-NJ, Picatinny Arsenal, NJ	Dec 2017	Aug 2018	31,507	0.174	Y		
M17 & M18 Modular Handgun System		2019	SIG SAUER, INC / NEWINGTON, NH	Option / FFP	ACC-NJ, Picatinny Arsenal, NJ	Jan 2019	Feb 2019	193,830	0.174	Y		

**Remarks:**  
The Modular Handgun System is a COTS/NDI solution, therefore, a P21 delivery schedule is not required.

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles	<b>P-1 Line Item Number / Title:</b> 9582G01700 / Howitzer Lt Wt 155mm (T)
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	18	-	-	-	-	-	-	-	-	-	18
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,250.042	61.100	-	-	-	-	-	-	-	-	-	1,311.142
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,250.042	61.100	-	-	-	-	-	-	-	-	-	1,311.142
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>1,250.042</b>	<b>61.100</b>	-	-	-	-	-	-	-	-	-	<b>1,311.142</b>

*(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> )	-	3,394.444	-	-	-	-	-	-	-	-	-	72,841.222

**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) commenced in FY2014 and will continue through 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 replaces three-times faster and displaces four-times faster. It traverses 32-percent more terrain worldwide and is 70-percent more survivable than the M198. It is a successful joint service program between the USMC and US Army working together to develop, produce, field, and sustain the howitzer.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	18	-	-	-	-	-	-	-	-
	61.100	-	-	-	-	-	-	-	-
<b>Total:</b>	<b>18</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Secondary Distribution</b>	<b>61.100</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Justification:**

FY 2020 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.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 10: Weapons & Other Combat Vehicles		<b>P-1 Line Item Number / Title:</b> 9582G01700 / Howitzer Lt Wt 155mm (T)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 3000GB3000 / MK-19 Grenade Machine Gun MODS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	41.809	2.000	1.684	3.737	-	3.737	6.708	11.678	14.383	-	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	41.809	2.000	1.684	3.737	-	3.737	6.708	11.678	14.383	-	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>41.809</b>	<b>2.000</b>	<b>1.684</b>	<b>3.737</b>	<b>-</b>	<b>3.737</b>	<b>6.708</b>	<b>11.678</b>	<b>14.383</b>	<b>-</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	-	6.309	14.903	6.377	-	6.377	5.303	5.910	5.907	-	Continuing	Continuing

**Description:**

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 that further improve the system by increasing operational capabilities and improving reliability, readiness, maintainability, and safety. The MK-19 is fielded with the MK93 mount and during static defensive operations it is ground employed utilizing the M3 or M205 Tripod Mount. An on-going system improvement to the MK19 is application of improved mechanical sights thru a Modification Work Order. The improved sight reduces the MK19 logistic burden by reducing the number of parts as well as increasing Soldier capability thru updated ballistic solutions. The Mounted Machine Gun Optic (MMO) provides the Soldier increased accuracy and identification at range by equipping the Medium/Heavy Machine Gun including the MK19 MOD 3 GMG an optic with selectable magnification. The MMO also retains the capability of short range, transition fire. MK93 Improvement Kits will enhance hit performance during on the move engagement by dampening mount movement. MK93 Improvement Kits also help when firing extreme elevation and integration of new optics and fire control due to better stability. The Programmer Unit (PU) provides the means for fuze setting for the 40mm airbursting capability currently under development.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	2.000	1.684	3.737	-	3.737	6.708	11.678	14.383	-
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	<b>2.000</b>	<b>1.684</b>	<b>3.737</b>	<b>-</b>	<b>3.737</b>	<b>6.708</b>	<b>11.678</b>	<b>14.383</b>	<b>-</b>

**Justification:**

FY 2020 Base procurement dollars in the amount of \$3.737 million supports the Active Army by procuring 3,100 MK-19 Improved Sights, 131 Mounted Machine Gun Optics (MMO) and 83 MK93 Improvement Kits. 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) provides the Soldier increased accuracy and target identification thru selectable magnification. The MK93 Improvement Kits will enhance hit performance during on the move engagement by dampening mount movement.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh		<b>P-1 Line Item Number / Title:</b> 3000GB3000 / MK-19 Grenade Machine Gun MODS
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> 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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 3005GZ1700 / M777 Mods
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	119.306	28.672	3.086	2.367	-	2.367	10.995	16.223	17.238	20.260	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	119.306	28.672	3.086	2.367	-	2.367	10.995	16.223	17.238	20.260	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>119.306</b>	<b>28.672</b>	<b>3.086</b>	<b>2.367</b>	<b>-</b>	<b>2.367</b>	<b>10.995</b>	<b>16.223</b>	<b>17.238</b>	<b>20.260</b>	<b>Continuing</b>	<b>Continuing</b>

*(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) commenced in FY2014 and will continue through 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 replaces three-times faster and displaces four-times faster. It traverses 32-percent more terrain worldwide and is 70-percent more survivable than the M198. It is a successful joint service program between the USMC and 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 modification and sustainment efforts such as Digital Fire Control System (DFCS) component refresh, integration of upgraded components, and interoperability issues including M-Code satellite signal in support of the M777A2 program.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	26.872	1.778	1.087	-	1.087	4.890	8.736	10.343	12.156
ANG									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.800	1.308	1.280	-	1.280	6.105	7.487	6.895	8.104
<b>Total: Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	<b>28.672</b>	<b>3.086</b>	<b>2.367</b>	<b>-</b>	<b>2.367</b>	<b>10.995</b>	<b>16.223</b>	<b>17.238</b>	<b>20.260</b>

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh		<b>P-1 Line Item Number / Title:</b> 3005GZ1700 / M777 Mods
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		

**Justification:**  
FY 2020 Base procurement dollars in the amount of \$2.367 million continues to support retrofits of previously contracted Engineering Change Proposals for items such as the Improved Power Conditioning Control Module (I-PCCM), Hydraulic Power Assist Kit (HyPAK), Mission Computer (MSC-R), Chief of Section Display (CSD-R), and Chrome Cannon Tubes that are required to replace unsupportable and obsolete legacy components. The Digital Fire Control System software will also be upgraded as part of these retrofits. The upgraded software requires additional operator training as it reflects significant changes to operator tactics and procedures. Chrome Cannon Tubes increase safety, accuracy, and longevity of the howitzer by eliminating propellant residue inside the cannon tubes. Propellant residue causes spiral wear which reduces the muzzle velocity of the howitzer and causes fuze malfunctions of projectiles. Reduced muzzle velocity leads to projectiles impacting short of their intended targets.

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

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 3010GB3007 / M4 Carbine Mods
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	882.605	31.069	38.075	17.595	-	17.595	4.829	4.904	4.409	10.530	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	882.605	31.069	38.075	17.595	-	17.595	4.829	4.904	4.409	10.530	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>882.605</b>	<b>31.069</b>	<b>38.075</b>	<b>17.595</b>	<b>-</b>	<b>17.595</b>	<b>4.829</b>	<b>4.904</b>	<b>4.409</b>	<b>10.530</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	9.999	0.306	0.397	-	-	-	-	-	-	-	Continuing	Continuing

**Description:**

The M4 Carbine Modification Program provides combat optics, a Close Quarters Battle Kit (CQBK), and M4 to M4A1 carbine upgrade kits. The Improved Weapons Cleaning Kit (IWCK) and the Enhanced Performance Magazine (EPM) are both components of the Close Quarters Battle Kit (CQBK). 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 and durability and maintains terminal performance of the M4 and M16 family of weapons. 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	22.839	22.147	6.015	-	6.015	4.829	4.904	4.409
ANG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.502	14.336	10.689	-	10.689	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.728	1.592	0.891	-	0.891	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Obligation Authority</b>	<b>31.069</b>	<b>38.075</b>	<b>17.595</b>	<b>-</b>	<b>17.595</b>	<b>4.829</b>	<b>4.904</b>	<b>4.409</b>

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 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

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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	GB3007 / M4 PIP (Increase Performance)		A		- / 882.605	- / 31.069	- / 38.075	- / 17.595	- / -	- / 17.595
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 882.605</b>	<b>- / 31.069</b>	<b>- / 38.075</b>	<b>- / 17.595</b>	<b>- / -</b>	<b>- / 17.595</b>

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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	GB3007 / M4 PIP (Increase Performance)		A		- / 4.829	- / 4.904	- / 4.409	- / 10.530	Continuing	Continuing
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 4.829</b>	<b>- / 4.904</b>	<b>- / 4.409</b>	<b>- / 10.530</b>	<b>Continuing</b>	<b>Continuing</b>

\*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 2020 Base procurement dollars in the amount of \$17.595 million supports the procurement of Improved Weapons Cleaning Kits (IWCK), the purchase of the enhanced performance magazine, 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. FY2020 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 travel teams, and Tank Automotive Command (TACOM) MWO Support Team. The IWCK has been reconfigured to increase the utility to the Soldier and drive down unit cost. The Individual Kit contains the tools to clean 5.56mm weapon systems, while the Team Kit contain tools to clean 5.56mm, 7.62mm, 9mm, and .45 caliber weapons systems.

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

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20	<b>P-1 Line Item Number / Title:</b> 3010GB3007 / M4 Carbine Mods	<b>Modification Number / Title:</b> GB3007 / M4 PIP

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A						<b>MDAP/MAIS Code:</b>						
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	882.605	31.069	38.075	17.595	-	17.595	4.829	4.904	4.409	10.530	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	882.605	31.069	38.075	17.595	-	17.595	4.829	4.904	4.409	10.530	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>882.605</b>	<b>31.069</b>	<b>38.075</b>	<b>17.595</b>	-	<b>17.595</b>	<b>4.829</b>	<b>4.904</b>	<b>4.409</b>	<b>10.530</b>	<b>Continuing</b>	<b>Continuing</b>
<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> )	9.999	0.306	0.397	-	-	-	-	-	-	-	Continuing	Continuing

**Description:**

The M4 Carbine Modification Program provides combat optics, a Close Quarters Battle Kit (CQBK), and M4 to M4A1 carbine upgrade kits. The Improved Weapons Cleaning Kit (IWCK) and the Enhanced Performance Magazine (EPM) are both components of the Close Quarters Battle Kit (CQBK). 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 and durability and maintains terminal performance of the M4 and M16 family of weapons. 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.

Close Quarters Battle Kit: The Close Quarters Battle Kit (CQBK) provides the Soldier with multiple low cost items to increase lethality and survivability with individual weapons. The Improved Weapons Cleaning Kit (IWCK) contains all the necessary items needed to conduct a thorough and efficient cleaning of both the weapon and the optic. The IWCK has been reconfigured into two separate kits: Individual Kit and Team Kit. The IWCK has been reconfigured to increase the utility to the Soldier and the weapon systems. The Individual Kit will be fielded to every Soldier issued a M4/M16. The Team Kit will be fielded one per Fire Team or 2 per squad of nine (9) Soldiers. The enhanced performance magazine will be procured for the carbine/rifle fleet.

M4 Product Improvement Program (PIP) Phase I: Phase I Increment C converts up to 483,000 M4 Carbines to M4A1 Carbines by incorporating the M4A1 heavy barrel assembly, the M4A1 full auto trigger mechanism, and a new ambidextrous selector. The kits enhance current M4 Carbine's sustained rate of fire, ergonomics, reliability, durability, and maintainability.

<b>Secondary Distribution</b>		<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	22.839	22.147	6.015	-	6.015	4.829	4.904	4.409	10.530
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.502	14.336	10.689	-	10.689	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.728	1.592	0.891	-	0.891	-	-	-	-
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>31.069</b>	<b>38.075</b>	<b>17.595</b>	-	<b>17.595</b>	<b>4.829</b>	<b>4.904</b>	<b>4.409</b>	<b>10.530</b>

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>											<b>Date: March 2019</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20				<b>P-1 Line Item Number / Title:</b> 3010GB3007 / M4 Carbine Mods							<b>Modification Number / Title:</b> GB3007 / M4 PIP		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> M4/M4A1 CARBINE				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
<b>Procurement</b>													
<b>Modification Item 1 of 4: Combat Optics/Small Arms Fire Control Squad</b>													
B Kits													
Recurring													
Combat Optics	459,113 / 380.289	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	459,113 / 380.289	
Program Management (Non- Labor)	- / 11.550	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 11.550	
Test	- / 0.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.400	
Integrated Logistical Support	- / 2.990	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.990	
Total Package Fielding	- / 2.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.100	
New Equipment Training	- / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.100	
<b>Subtotal: Recurring</b>	<b>459,113 / 397.429</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>459,113 / 397.429</b>	
<b>Subtotal: Combat Optics/Small Arms Fire Control Squad</b>	<b>459,113 / 397.429</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>459,113 / 397.429</b>	
<b>Modification Item 2 of 4: Close Quarters Battle Kit</b>													
B Kits													
Recurring													
Close Quarters Battle Kit	149,182 / 302.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	149,182 / 302.600	
Improved Weapons Cleaning Kit (Indv)	290,811 / 25.181	55,163 / 5.854	42,395 / 4.649	4,846 / 0.562	- / -	4,846 / 0.562	- / -	- / -	- / -	- / -	- / 0.000	393,215 / 36.246	
Improved Weapons Cleaning Kit (Team)	13,251 / 1.348	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	13,251 / 1.348	
Improved Magazines	119,760 / 1.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	119,760 / 1.000	
Enhanced Performance Magazines	30,250 / 0.364	- / 0.455	278,000 / 3.336	19,543 / 0.419	- / -	19,543 / 0.419	93,698 / 1.026	203,287 / 2.226	346,027 / 3.789	828,750 / 9.945	Continuing	Continuing	
Program Management (Non- Labor)	- / 1.890	- / 0.200	- / 0.100	- / 0.030	- / -	- / 0.030	- / 0.164	- / 0.178	- / 0.180	- / 0.180	- / 0.000	- / 2.922	
Engineering Support	- / 14.154	- / 0.365	- / 0.400	- / 0.250	- / -	- / 0.250	- / 0.335	- / 0.340	- / 0.335	- / 0.300	- / 0.000	- / 16.479	
Integrated Logistic Support	- / 4.760	- / 0.025	- / 0.020	- / 0.020	- / -	- / 0.020	- / 0.035	- / 0.040	- / 0.040	- / 0.045	- / 0.000	- / 4.985	
Total Package Fielding	- / 3.044	- / 0.105	- / 0.050	- / 0.040	- / -	- / 0.040	- / 0.060	- / 0.065	- / 0.065	- / 0.060	- / 0.000	- / 3.489	
<b>Subtotal: Recurring</b>	<b>603,254 / 354.341</b>	<b>55,163 / 7.004</b>	<b>320,395 / 8.555</b>	<b>24,389 / 1.321</b>	<b>- / -</b>	<b>24,389 / 1.321</b>	<b>93,698 / 1.620</b>	<b>203,287 / 2.849</b>	<b>346,027 / 4.409</b>	<b>828,750 / 10.530</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Subtotal: Close Quarters Battle Kit</b>	<b>603,254 / 354.341</b>	<b>55,163 / 7.004</b>	<b>320,395 / 8.555</b>	<b>24,389 / 1.321</b>	<b>- / -</b>	<b>24,389 / 1.321</b>	<b>93,698 / 1.620</b>	<b>203,287 / 2.849</b>	<b>346,027 / 4.409</b>	<b>828,750 / 10.530</b>	<b>Continuing</b>	<b>Continuing</b>	
<b>Modification Item 3 of 4: M4 Product Improvement Program (PIP) Phase I</b>													

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date: March 2019</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20				<b>P-1 Line Item Number / Title:</b> 3010GB3007 / M4 Carbine Mods						<b>Modification Number / Title:</b> GB3007 / M4 PIP		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>					
<b>Models of Systems Affected:</b> M4/M4A1 CARBINE				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>				
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
<b>B Kits</b>												
Recurring												
Hardware M4 PIP Phase 1 (kit equivalent)	483,000 / 73.802	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	483,000 / 73.802
Hardware PIP Parts (bench stocks,others)	- / 11.170	- / 3.461	- / 3.540	- / 2.837	- / -	- / 2.837	- / 0.300	- / 0.250	- / -	- / -	- / 0.000	- / 21.558
System Support MWO Team/TACOM	- / 6.562	- / 1.493	- / 1.266	- / 1.289	- / -	- / 1.289	- / 0.700	- / 0.340	- / -	- / -	- / 0.000	- / 11.650
ANAD Staging Team Labor	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.615	- / 0.420	- / -	- / -	- / 0.000	- / 1.035
Anniston Travel Team Labor	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.540	- / 0.410	- / -	- / -	- / 0.000	- / 0.950
Program Management (Non-Labor)	- / 2.896	- / 0.825	- / 0.830	- / 0.835	- / -	- / 0.835	- / 0.164	- / 0.105	- / -	- / -	- / 0.000	- / 5.655
Engineering Support	- / 3.323	- / 0.500	- / 0.550	- / 0.500	- / -	- / 0.500	- / 0.550	- / 0.335	- / -	- / -	- / 0.000	- / 5.758
Integrated Logistics Support	- / 1.866	- / 0.045	- / 0.048	- / 0.055	- / -	- / 0.055	- / 0.040	- / 0.045	- / -	- / -	- / 0.000	- / 2.099
Transportation Costs	- / 1.920	- / 0.550	- / 0.515	- / 0.520	- / -	- / 0.520	- / 0.300	- / 0.150	- / -	- / -	- / 0.000	- / 3.955
Inspect and Repair USAR 8th ARMY	- / 0.332	- / 0.174	- / 0.171	- / 0.168	- / -	- / 0.168	- / -	- / -	- / -	- / -	- / 0.000	- / 0.845
<b>Subtotal: Recurring</b>	<b>483,000 / 101.871</b>	<b>- / 7.048</b>	<b>- / 6.920</b>	<b>- / 6.204</b>	<b>- / -</b>	<b>- / 6.204</b>	<b>- / 3.209</b>	<b>- / 2.055</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>483,000 / 127.307</b>
Non-Recurring												
Hammer Firing Contract Modification	- / -	- / 0.403	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.403
M4A1 Engineering Change Proposal (ECP)	- / -	- / 0.780	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.780
<b>Subtotal: Non-Recurring</b>	<b>- / -</b>	<b>- / 1.183</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 1.183</b>
<b>Subtotal: M4 Product Improvement Program (PIP) Phase I</b>	<b>483,000 / 101.871</b>	<b>- / 8.231</b>	<b>- / 6.920</b>	<b>- / 6.204</b>	<b>- / -</b>	<b>- / 6.204</b>	<b>- / 3.209</b>	<b>- / 2.055</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>483,000 / 128.490</b>
<b>Modification Item 4 of 4: Extended Forward Rail Systems MWO Kits</b>												
A Kits												
Recurring												
Extended Rail System MWO Kit (Hardware)	- / -	- / -	4,020 / 6.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	4,020 / 6.500
<b>Subtotal: Recurring</b>	<b>- / -</b>	<b>- / -</b>	<b>4,020 / 6.500</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>4,020 / 6.500</b>
<b>Subtotal: Extended Forward Rail Systems MWO Kits</b>	<b>- / -</b>	<b>- / -</b>	<b>4,020 / 6.500</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>4,020 / 6.500</b>
<b>Subtotal: Procurement, All Modification Items</b>	<b>1,545,367 / 853.641</b>	<b>55,163 / 15.235</b>	<b>324,415 / 21.975</b>	<b>24,389 / 7.525</b>	<b>- / -</b>	<b>24,389 / 7.525</b>	<b>93,698 / 4.829</b>	<b>203,287 / 4.904</b>	<b>346,027 / 4.409</b>	<b>828,750 / 10.530</b>	<b>Continuing</b>	<b>Continuing</b>
<b>Installation</b>												
<b>Modification Item 3 of 4: M4 Product Improvement Program (PIP) Phase I</b>	<b>213,426 / 28.964</b>	<b>101,450 / 15.834</b>	<b>96,000 / 16.100</b>	<b>57,596 / 10.070</b>	<b>- / -</b>	<b>57,596 / 10.070</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>468,472 / 70.968</b>
<b>Subtotal: Installation</b>	<b>213,426 / 28.964</b>	<b>101,450 / 15.834</b>	<b>96,000 / 16.100</b>	<b>57,596 / 10.070</b>	<b>- / -</b>	<b>57,596 / 10.070</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>468,472 / 70.968</b>

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20	<b>P-1 Line Item Number / Title:</b> 3010GB3007 / M4 Carbine Mods	<b>Modification Number / Title:</b> GB3007 / M4 PIP
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Models of Systems Affected:** M4/M4A1 CARBINE **Modification Type:** Increase Performance **Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
<b>Total</b>												
<b>Total Cost (Procurement + Support + Installation)</b>	882.605	31.069	38.075	17.595	-	17.595	4.829	4.904	4.409	10.530	Continuing	Continuing



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3010GB3007 / M4 Carbine Mods			<b>Modification Number / Title:</b> GB3007 / M4 PIP	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 1 of 4:</b> Combat Optics/Small Arms Fire Control Squad							
<b>Manufacturer Information</b>							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Installed by Soldiers					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3010GB3007 / M4 Carbine Mods			<b>Modification Number / Title:</b> GB3007 / M4 PIP	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Modification Item 2 of 4:</b> Close Quarters Battle Kit							
<b>Manufacturer Information</b>							
Manufacturer Name: DLA Tailoring Logistic Support(various vendors)				Manufacturer Location: Philadelphia, PA			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 2			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024
Delivery Dates	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023	Mar 2024
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Installed by Soldiers						<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>												<b>Date: March 2019</b>																			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20						<b>P-1 Line Item Number / Title:</b> 3010GB3007 / M4 Carbine Mods						<b>Modification Number / Title:</b> GB3007 / M4 PIP																			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>																			
<b>Modification Item 3 of 4: M4 Product Improvement Program (PIP) Phase I</b>																															
<b>Manufacturer Information</b>																															
Manufacturer Name: Various Vendors												Manufacturer Location: Various Locations																			
Administrative Leadtime (in Months):												Production Leadtime (in Months): 1																			
<b>Dates</b>		<b>FY 2018</b>				<b>FY 2019</b>				<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>				<b>FY 2023</b>				<b>FY 2024</b>					
Contract Dates		Oct 2017				Oct 2018				Oct 2019																					
Delivery Dates		Dec 2017				Dec 2018				Dec 2019																					
<b>Installation Information</b>																															
<b>Method of Implementation:</b> Installed by TACOM																															
<b>Installation Cost</b>		<b>Prior Years</b>		<b>FY 2018</b>		<b>FY 2019</b>		<b>FY 2020 Base</b>		<b>FY 2020 OCO</b>		<b>FY 2020 Total</b>		<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023</b>		<b>FY 2024</b>		<b>To Complete</b>		<b>Total</b>							
		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (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		213,426 / 28.964		101,450 / 15.834		96,000 / 16.100		57,596 / 10.070		- / -		57,596 / 10.070		- / -		- / -		- / -		- / -		- / -		- / -		468,472 / 70.968					
FY 2018		0 / 0.000		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000					
FY 2019		0 / 0.000		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000					
FY 2020		0 / 0.000		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000					
FY 2021		0 / 0.000		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000					
FY 2022		0 / 0.000		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000					
FY 2023		0 / 0.000		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000					
FY 2024		0 / 0.000		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000					
To Complete		0 / 0.000		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000					
Total		213,426 / 28.964		101,450 / 15.834		96,000 / 16.100		57,596 / 10.070		- / -		57,596 / 10.070		- / -		- / -		- / -		- / -		- / -		- / -		468,472 / 70.968					
<b>Installation Schedule</b>																															
		<b>FY 2018</b>				<b>FY 2019</b>				<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>				<b>FY 2023</b>				<b>FY 2024</b>					
<b>PYS</b>		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>TC</b>	<b>Tot</b>
In		213,426	225,362	225,362	225,362	424,000	24,000	24,000	24,000	14,399	14,399	14,399	14,399	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	468,472
Out		213,426	225,362	225,362	225,362	424,000	24,000	24,000	24,000	14,399	14,399	14,399	14,399	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	468,472

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20	<b>P-1 Line Item Number / Title:</b> 3010GB3007 / M4 Carbine Mods	<b>Modification Number / Title:</b> GB3007 / M4 PIP

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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**Modification Item 4 of 4:** Extended Forward Rail Systems MWO Kits

**Manufacturer Information**

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 2

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates				Jan 2021	Jan 2022	Jan 2023	
Delivery Dates				Mar 2021	Mar 2022	Mar 2023	

**Installation Information**

**Method of Implementation:** Installed by Tacom

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000

**Installation Schedule**

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	505	505	505	506	500	500	500	494	-	-	-	-	1,707	5,722
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	505	505	505	506	500	500	500	494	-	-	-	-	1,707	5,722

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 3015GB4000 / M2 50 Cal Machine Gun MODS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	347.294	50.414	19.098	-	6.090	6.090	-	0.849	0.849	0.857	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	347.294	50.414	19.098	-	6.090	6.090	-	0.849	0.849	0.857	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>347.294</b>	<b>50.414</b>	<b>19.098</b>	-	<b>6.090</b>	<b>6.090</b>	-	<b>0.849</b>	<b>0.849</b>	<b>0.857</b>	<b>Continuing</b>	<b>Continuing</b>

*(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> )	30.152	6.323	5.235	-	-	-	-	-	-	-	Continuing	Continuing

**Description:**

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 are mounted on the M3 Tripod or the M205 Lightweight Tripod. The 34 pound M205 Tripod reduces the Soldier burden by 16 pounds, as the current M3 Tripod 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; adjustable traverse limit stop for night time missions; and a new lightweight pintle design. The Mounted Machine Gun Optic (MMO) will provide increased accuracy by equipping Medium/Heavy Machine Guns, including the M2/M2A1, with a magnified optic. The MMO will significantly improve target identification and engagement at extended ranges while retaining the capability of short range, transition fire. The MK93 is the primary mount used to interface the M2/M2A1 with all Army vehicles and ground mounts. MK93 Improvement Kits will enhance hit performance during on the move engagement by dampening mount movement.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	34.414	8.039	0.000	6.090	6.090	-	0.849	0.849
ANG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.000	11.059	-	-	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	10.000	-	-	-	-	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>50.414</b>	<b>19.098</b>	-	<b>6.090</b>	<b>6.090</b>	-	<b>0.849</b>	<b>0.849</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 3015GB4000 / M2 50 Cal Machine Gun MODS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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	GB4000 / M2 Mods (Increase performance)		A		- / 347.294	- / 50.414	- / 19.098	- / -	- / 6.090	- / 6.090
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 347.294</b>	<b>- / 50.414</b>	<b>- / 19.098</b>	<b>- / -</b>	<b>- / 6.090</b>	<b>- / 6.090</b>

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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	GB4000 / M2 Mods (Increase performance)		A		- / -	- / 0.849	- / 0.849	- / 0.857	Continuing	Continuing
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / -</b>	<b>- / 0.849</b>	<b>- / 0.849</b>	<b>- / 0.857</b>	<b>Continuing</b>	<b>Continuing</b>

\*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 2020 OCO procurement dollars in the amount of \$6.090 million supports COCOM requirement for unit equipment sets to deter potential adversaries and support European Deterrence Initiative (EDI). Funding supports the Integrated Logistics, Engineering, Program Management and the fielding for Quick Change Barrel Kits and M205 Tripods.

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

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20	<b>P-1 Line Item Number / Title:</b> 3015GB4000 / M2 50 Cal Machine Gun MODS	<b>Modification Number / Title:</b> GB4000 / M2 Mods

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

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	347.294	50.414	19.098	-	6.090	6.090	-	0.849	0.849	0.857	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	347.294	50.414	19.098	-	6.090	6.090	-	0.849	0.849	0.857	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>347.294</b>	<b>50.414</b>	<b>19.098</b>	<b>-</b>	<b>6.090</b>	<b>6.090</b>	<b>-</b>	<b>0.849</b>	<b>0.849</b>	<b>0.857</b>	<b>Continuing</b>	<b>Continuing</b>

*(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)	30.152	6.323	5.235	-	-	-	-	-	-	-	Continuing	Continuing

**Description:**

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 reduce the visible muzzle flash. In a dismounted role, the M2/MK19 Machine Guns are mounted on the M3 Tripod or the M205 Lightweight Tripod. The 34 pound M205 Tripod reduces the Soldier burden by 16 pounds, as the current M3 Tripod 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; adjustable traverse limit stop for night time missions; and a new lightweight pintle design. The Mounted Machine Gun Optic (MMO) will provide increased accuracy by equipping Medium/Heavy Machine Guns, including the M2/M2A1, with a magnified optic. The MMO will significantly improve target identification and engagement at extended ranges while retaining the capability of short range, transition fire. The MK93 is the primary mount used to interface the M2/M2A1 with all Army vehicles and ground mounts. Improvements being implemented include rotary dampers to minimize weapon bounce during vehicle operations which will increase the probability of hit on target while still allowing fast changes in both direction and elevation. Continues engineering studies on the M2A1 Machine Gun components, the M205 Lightweight Tripod to lighten the Soldier's load and the upgrades to the MK93 Mount. The MK93 Improvement work effort transitions to GB3000 - MK-19 Grenade Machine Gun MODS in FY 2020.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	34.414	8.039	0.000	6.090	6.090	-	0.849	0.849	0.857
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.000	11.059	-	-	-	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	10.000	-	-	-	-	-	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Obligation Authority</b>	<b>50.414</b>	<b>19.098</b>	<b>-</b>	<b>6.090</b>	<b>6.090</b>	<b>-</b>	<b>0.849</b>	<b>0.849</b>	<b>0.857</b>

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: PB 2020 Army** **Date:** March 2019

**Appropriation / Budget Activity / Budget Sub Activity:** 2033A / 02 / 20 **P-1 Line Item Number / Title:** 3015GB4000 / M2 50 Cal Machine Gun MODS **Modification Number / Title:** GB4000 / M2 Mods

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

**Models of Systems Affected:** Machine Gun, CAL .50 M2 and MK-19 Grenade Machine Gun **Modification Type:** Increase performance **Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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:** M2A1 Quick Change Barrel Kit

B Kits													
Recurring													
Hardware Quick Change Barrel Kits	3,800 / 196.085	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Engineering Support	- / 9.069	- / 0.702	- / 0.650	- / 0.000	- / 0.859	- / 0.859	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 11.280
Program Management Support (Non-Labor)	- / 2.946	- / 1.487	- / 1.104	- / 0.000	- / 0.626	- / 0.626	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 6.163
Integrated Logistics Support	- / 1.610	- / 0.221	- / 0.330	- / 0.000	- / 0.300	- / 0.300	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.461
Fielding	- / 1.700	- / 0.700	- / 0.600	- / 0.000	- / 0.600	- / 0.600	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.600
New Equipment Training	- / 1.770	- / 0.800	- / 0.700	- / 0.000	- / 0.700	- / 0.700	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.970
First Destination Transportation	- / 1.841	- / 0.100	- / 0.100	- / 0.000	- / 0.100	- / 0.100	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.141
Engineering Studies	- / 3.515	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.515
Testing	- / 0.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.800
Anniston Packaging	- / 3.348	- / 1.603	- / 0.447	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.398
Prototype Integration Facility	- / -	- / 0.227	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.227
<b>Subtotal: Recurring</b>	<b>3,800 / 222.684</b>	<b>- / 5.840</b>	<b>- / 3.931</b>	<b>- / -</b>	<b>- / 3.185</b>	<b>- / 3.185</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>Continuing</b>	<b>Continuing</b>
<b>Subtotal: M2A1 Quick Change Barrel Kit</b>	<b>3,800 / 222.684</b>	<b>- / 5.840</b>	<b>- / 3.931</b>	<b>- / 0.000</b>	<b>- / 3.185</b>	<b>- / 3.185</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>Continuing</b>	<b>Continuing</b>

**Modification Item 2 of 4:** Tripods

B Kits													
Recurring													
M3 Tripods	1,305 / 8.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1,305 / 8.500
M205 Tripod	17,364 / 68.811	4,593 / 11.215	650 / 1.164	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	22,607 / 81.190
M205 Tripod MWO	- / -	- / -	- / -	- / -	- / -	- / -	- / -	250 / 0.488	250 / 0.500	250 / 0.513	- / 0.000	750 / 1.501	
Engineering Support	- / 6.031	- / 0.950	- / 0.615	- / 0.000	- / 0.550	- / 0.550	- / -	- / 0.071	- / 0.079	- / 0.084	- / 0.000	- / 8.380	
Program Management Support (Non-Labor)	- / 9.377	- / 5.860	- / 1.636	- / 0.000	- / 1.205	- / 1.205	- / -	- / 0.140	- / 0.140	- / 0.140	- / 0.000	- / 18.498	
Integrated Logistics Support	- / 0.875	- / 0.350	- / 0.100	- / 0.000	- / 0.225	- / 0.225	- / -	- / 0.040	- / 0.040	- / 0.040	- / 0.000	- / 1.670	
New Equipment Training	- / 0.992	- / 0.725	- / 0.750	- / 0.000	- / 0.500	- / 0.500	- / -	- / 0.070	- / 0.050	- / 0.040	- / 0.000	- / 3.127	
Fielding	- / 0.840	- / 0.600	- / 0.600	- / 0.000	- / 0.400	- / 0.400	- / -	- / 0.040	- / 0.040	- / 0.040	- / 0.000	- / 2.560	
Engineering Study	- / 1.268	- / 0.937	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.205
M205 Tripod - Rock Island Arsenal (RIA)	350 / 3.493	179 / 1.790	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	529 / 5.283
Engineering Change Proposal	- / 1.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.750



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>											<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20				<b>P-1 Line Item Number / Title:</b> 3015GB4000 / M2 50 Cal Machine Gun MODS					<b>Modification Number / Title:</b> GB4000 / M2 Mods			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>					
<b>Models of Systems Affected:</b> Machine Gun, CAL .50 M2 and MK-19 Grenade Machine Gun				<b>Modification Type:</b> Increase performance				<b>Related RDT&amp;E PEs:</b>				
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
Testing (First Article)	- / 1.780	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.780
First Destination Transportation	- / 0.708	- / 0.129	- / -	- / 0.000	- / 0.025	- / 0.025	- / -	- / -	- / -	- / -	- / 0.000	- / 0.862
Prototype Integration Facility	- / 0.225	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.225
Manuals/Visual Guides	- / -	- / 0.239	- / 0.050	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.289
<b>Subtotal: Recurring</b>	19,019 / 104.650	4,772 / 22.795	650 / 4.915	- / -	- / 2.905	- / 2.905	- / -	250 / 0.849	250 / 0.849	250 / 0.857	- / -	25,191 / 137.820
<b>Subtotal: Tripods</b>	19,019 / 104.650	4,772 / 22.795	650 / 4.915	- / 0.000	- / 2.905	- / 2.905	- / -	250 / 0.849	250 / 0.849	250 / 0.857	- / -	25,191 / 137.820
<b>Modification Item 3 of 4: MK93 Improvements</b>												
B Kits												
Recurring												
MK93 Improvements	3,445 / 5.482	4,681 / 6.039	460 / 3.966	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	8,586 / 15.487
Engineering Support	- / 1.710	- / 0.679	- / 0.443	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.832
Program Management Support (Non-Labor)	- / 3.221	- / 2.057	- / 0.483	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.761
Integrated Logistics Support	- / 0.100	- / 0.175	- / 0.125	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.400
Material Work Order (ANAD)	- / 0.650	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.650
Material Work Order (TACOM)	- / 0.400	- / 0.625	- / 0.225	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.250
Testing (First Article)	- / 0.350	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.350
Testing	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.500
Engineering Studies	- / 2.975	- / 0.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.675
First Destination Transportation	- / -	- / 0.025	- / 0.020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.045
<b>Subtotal: Recurring</b>	3,445 / 15.388	4,681 / 10.300	460 / 5.262	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8,586 / 30.950
<b>Subtotal: MK93 Improvements</b>	3,445 / 15.388	4,681 / 10.300	460 / 5.262	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	8,586 / 30.950
<b>Modification Item 4 of 4: Mounted Machine Gun Optic</b>												
B Kits												
Recurring												
Mounted MG Optic	- / -	1,400 / 8.436	1,893 / 3.037	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Engineering Support	- / -	- / 0.650	- / 0.880	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.530
Program Management Support (Non-Labor)	- / -	- / 1.038	- / 0.382	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.420
Integrated Logistics Support	- / -	- / 0.080	- / 0.391	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.471
Fielding	- / -	- / 0.300	- / 0.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.450
New Equipment Training	- / -	- / 0.125	- / 0.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.275
<b>Subtotal: Recurring</b>	- / -	1,400 / 10.629	1,893 / 4.990	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20	<b>P-1 Line Item Number / Title:</b> 3015GB4000 / M2 50 Cal Machine Gun MODS	<b>Modification Number / Title:</b> GB4000 / M2 Mods
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Models of Systems Affected:** Machine Gun, CAL .50 M2 and MK-19 Grenade Machine Gun **Modification Type:** Increase performance **Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Mounted Machine Gun Optic</i>	- / -	1,400 / 10.629	1,893 / 4.990	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	Continuing	Continuing
<i>Subtotal: Procurement, All Modification Items</i>	26,264 / 342.722	10,853 / 49.564	3,003 / 19.098	- / -	- / 6.090	- / 6.090	- / -	250 / 0.849	250 / 0.849	250 / 0.857	Continuing	Continuing
<b>Installation</b>												
<i>Modification Item 1 of 4: M2A1 Quick Change Barrel Kit</i>	25,325 / 4.572	5,400 / 0.850	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30,725 / 5.422
<i>Subtotal: Installation</i>	25,325 / 4.572	5,400 / 0.850	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30,725 / 5.422
<b>Total</b>												
<b>Total Cost (Procurement + Support + Installation)</b>	<b>347.294</b>	<b>50.414</b>	<b>19.098</b>	<b>-</b>	<b>6.090</b>	<b>6.090</b>	<b>-</b>	<b>0.849</b>	<b>0.849</b>	<b>0.857</b>	<b>Continuing</b>	<b>Continuing</b>

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**Exhibit P-3a, Individual Modification: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20	<b>P-1 Line Item Number / Title:</b> 3015GB4000 / M2 50 Cal Machine Gun MODS	<b>Modification Number / Title:</b> GB4000 / M2 Mods
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Modification Item 1 of 4:** M2A1 Quick Change Barrel Kit

**Manufacturer Information**

Manufacturer Name: General Dynamics Ordnance Tactical Systems Manufacturer Location: Saco, ME

Administrative Leadtime (in Months): 5 Production Leadtime (in Months): 8

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** Overhaul/conversion

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	25,325 / 4.572	5,400 / 0.850	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30,725 / 5.422
FY 2018	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2019	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2023	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
FY 2024	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
To Complete	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000
<b>Total</b>	<b>25,325 / 4.572</b>	<b>5,400 / 0.850</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>30,725 / 5.422</b>

**Installation Schedule**

PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	25,325	1,350	1,350	1,350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30,725
Out	25,325	1,350	1,350	1,350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30,725

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3015GB4000 / M2 50 Cal Machine Gun MODS			<b>Modification Number / Title:</b> GB4000 / M2 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 2 of 4:</b> Tripods							
<b>Manufacturer Information</b>							
Manufacturer Name: Capco, Inc.				Manufacturer Location: Grand Junction, CO			
Administrative Leadtime (in Months): 8				Production Leadtime (in Months): 9			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Jun 2018	Jun 2019					
Delivery Dates	Mar 2019	Mar 2020					
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Installed by Troops					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3015GB4000 / M2 50 Cal Machine Gun MODS			<b>Modification Number / Title:</b> GB4000 / M2 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 3 of 4:</b> MK93 Improvements							
<b>Manufacturer Information</b>							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 4			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Dec 2018	Dec 2019					
Delivery Dates	Aug 2019	Apr 2020					
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Installed by Troops					<b>Installation Quantity:</b> 0		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3015GB4000 / M2 50 Cal Machine Gun MODS			<b>Modification Number / Title:</b> GB4000 / M2 Mods	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 4 of 4:</b> Mounted Machine Gun Optic							
<b>Manufacturer Information</b>							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 10			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Dec 2018	Dec 2019					
Delivery Dates	Oct 2019	Oct 2020					
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Installed by Troops					<b>Installation Quantity:</b> 0		

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 3020GZ1290 / M249 SAW Machine Gun MODS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	216.610	3.339	3.924	-	-	-	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	216.610	3.339	3.924	-	-	-	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>216.610</b>	<b>3.339</b>	<b>3.924</b>	-	-	-	-	-	-	-	<b>Continuing</b>	<b>Continuing</b>

*(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 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	3.339	3.924	-	-	-	-	-	-	-
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	<b>3.339</b>	<b>3.924</b>	-	-	-	-	-	-	-

**Justification:**

FY 2020 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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 3030GZ1300 / M240 Medium Machine Gun MODS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	166.601	4.577	6.947	8.000	-	8.000	8.000	8.000	8.000	8.000	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	166.601	4.577	6.947	8.000	-	8.000	8.000	8.000	8.000	8.000	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>166.601</b>	<b>4.577</b>	<b>6.947</b>	<b>8.000</b>	<b>-</b>	<b>8.000</b>	<b>8.000</b>	<b>8.000</b>	<b>8.000</b>	<b>8.000</b>	<b>Continuing</b>	<b>Continuing</b>

*(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 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 5 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.577	6.947	8.000	-	8.000	8.000	8.000	8.000	8.000
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.577	6.947	8.000	-	8.000	8.000	8.000	8.000	8.000



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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 3030GZ1300 / M240 Medium Machine Gun MODS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 Series System Improvements (Increase Performance)		A		- / 166.601	- / 4.577	- / 6.947	- / 8.000	- / -	- / 8.000
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 166.601</b>	<b>- / 4.577</b>	<b>- / 6.947</b>	<b>- / 8.000</b>	<b>- / -</b>	<b>- / 8.000</b>

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 Series System Improvements (Increase Performance)		A		- / 8.000	- / 8.000	- / 8.000	- / 8.000	Continuing	Continuing
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 8.000</b>	<b>- / 8.000</b>	<b>- / 8.000</b>	<b>- / 8.000</b>	<b>Continuing</b>	<b>Continuing</b>

\*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 2020 Base procurement dollars in the amount of \$8.000 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 lightweight bipods and improved barrels. 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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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20	<b>P-1 Line Item Number / Title:</b> 3030GZ1300 / M240 Medium Machine Gun MODS	<b>Modification Number / Title:</b> GZ1300 / M240 Series System Improvements

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	166.601	4.577	6.947	8.000	-	8.000	8.000	8.000	8.000	8.000	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	166.601	4.577	6.947	8.000	-	8.000	8.000	8.000	8.000	8.000	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>166.601</b>	<b>4.577</b>	<b>6.947</b>	<b>8.000</b>	<b>-</b>	<b>8.000</b>	<b>8.000</b>	<b>8.000</b>	<b>8.000</b>	<b>8.000</b>	<b>Continuing</b>	<b>Continuing</b>

*(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 5 pounds.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.577	6.947	8.000	-	8.000	8.000	8.000	8.000	8.000
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.577	6.947	8.000	-	8.000	8.000	8.000	8.000	8.000

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date:</b> March 2019			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20					<b>P-1 Line Item Number / Title:</b> 3030GZ1300 / M240 Medium Machine Gun MODS					<b>Modification Number / Title:</b> GZ1300 / M240 Series System Improvements			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> M240 Medium Machine Gun				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
<b>Procurement</b>													
<i>Modification Item 1 of 1:</i> M240 Series System Improvements													
B Kits													
Recurring													
Bipods	5,556 / 16.979	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	5,556 / 16.979	
Collapsible Buttstock	6,890 / 14.724	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	6,890 / 14.724	
Ti Adjustable Bipods	1,277 / 0.453	800 / 0.507	2,200 / 1.429	3,200 / 2.130	- / -	3,200 / 2.130	838 / 0.572	- / -	- / -	- / -	- / 0.000	8,315 / 5.091	
Improved Buffer	34,196 / 19.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	34,196 / 19.200	
Improved Barrel	4,400 / 13.520	2,000 / 1.876	2,600 / 2.488	4,000 / 3.904	- / -	4,000 / 3.904	5,800 / 5.774	7,000 / 7.038	7,000 / 7.175	7,000 / 7.350	Continuing	Continuing	
M197 MWO Kit Drop-in Mount Cradle	1,109 / 10.759	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1,109 / 10.759	
M192 Modification Work Order Kit	- / -	- / -	384 / 0.581	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	384 / 0.581	
Engineering Support	- / 31.232	- / 0.994	- / 0.809	- / 0.903	- / -	- / 0.903	- / 0.704	- / 0.416	- / 0.375	- / 0.450	- / 0.000	- / 35.883	
Program Management Support	- / 31.151	- / 0.555	- / 0.876	- / 0.506	- / -	- / 0.506	- / 0.403	- / 0.206	- / 0.050	- / 0.050	- / 0.000	- / 33.797	
Integrated Logistical Support	- / 15.929	- / 0.220	- / 0.314	- / 0.222	- / -	- / 0.222	- / 0.175	- / 0.100	- / 0.050	- / -	- / 0.000	- / 17.010	
Fielding	- / 12.654	- / 0.425	- / 0.450	- / 0.335	- / -	- / 0.335	- / 0.372	- / 0.240	- / 0.350	- / 0.150	- / 0.000	- / 14.976	
<i>Subtotal: Recurring</i>	<i>53,428 / 166.601</i>	<i>2,800 / 4.577</i>	<i>5,184 / 6.947</i>	<i>7,200 / 8.000</i>	<i>- / -</i>	<i>7,200 / 8.000</i>	<i>6,638 / 8.000</i>	<i>7,000 / 8.000</i>	<i>7,000 / 8.000</i>	<i>7,000 / 8.000</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: M240 Series System Improvements</i>	<i>53,428 / 166.601</i>	<i>2,800 / 4.577</i>	<i>5,184 / 6.947</i>	<i>7,200 / 8.000</i>	<i>- / -</i>	<i>7,200 / 8.000</i>	<i>6,638 / 8.000</i>	<i>7,000 / 8.000</i>	<i>7,000 / 8.000</i>	<i>7,000 / 8.000</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>53,428 / 166.601</i>	<i>2,800 / 4.577</i>	<i>5,184 / 6.947</i>	<i>7,200 / 8.000</i>	<i>- / -</i>	<i>7,200 / 8.000</i>	<i>6,638 / 8.000</i>	<i>7,000 / 8.000</i>	<i>7,000 / 8.000</i>	<i>7,000 / 8.000</i>	<i>Continuing</i>	<i>Continuing</i>	
<b>Installation</b>													
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
<b>Total</b>													
<b>Total Cost (Procurement + Support + Installation)</b>	<b>166.601</b>	<b>4.577</b>	<b>6.947</b>	<b>8.000</b>	<b>-</b>	<b>8.000</b>	<b>8.000</b>	<b>8.000</b>	<b>8.000</b>	<b>8.000</b>	<b>Continuing</b>	<b>Continuing</b>	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3030GZ1300 / M240 Medium Machine Gun MODS			<b>Modification Number / Title:</b> GZ1300 / M240 Series System Improvements	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 1 of 1:</b> M240 Series System Improvements							
<b>Manufacturer Information</b>							
Manufacturer Name: N/A				Manufacturer Location: N/A			
Administrative Leadtime (in Months): 5				Production Leadtime (in Months): 7			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Aug 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023	Mar 2024
Delivery Dates	Feb 2019	Oct 2019	Oct 2020	Oct 2021	Oct 2022	Oct 2023	Oct 2024
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Installed by Troops					<b>Installation Quantity:</b> 0		

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 3181GZ1500 / Sniper Rifles Modifications
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	41.548	1.488	2.747	2.426	-	2.426	1.900	1.857	1.892	1.794	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	41.548	1.488	2.747	2.426	-	2.426	1.900	1.857	1.892	1.794	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>41.548</b>	<b>1.488</b>	<b>2.747</b>	<b>2.426</b>	<b>-</b>	<b>2.426</b>	<b>1.900</b>	<b>1.857</b>	<b>1.892</b>	<b>1.794</b>	<b>Continuing</b>	<b>Continuing</b>

*(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:**

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, Tripod Weapon Cradle, Sniper Data Board, 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.488	2.747	2.426	-	2.426	1.900	1.857	1.892	1.794
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	<b>1.488</b>	<b>2.747</b>	<b>2.426</b>	<b>-</b>	<b>2.426</b>	<b>1.900</b>	<b>1.857</b>	<b>1.892</b>	<b>1.794</b>

**Justification:**

FY 2020 Base procurement dollars in the amount of \$2.426 million supports the Active Army through engineering studies and procurement of weapon conversions using engineering change proposals (ECP's), 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, Tripod Weapon 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

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh		<b>P-1 Line Item Number / Title:</b> 3181GZ1500 / Sniper Rifles Modifications
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0604601A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>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 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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	369.323	13.478	5.704	6.269	-	6.269	2.011	-	-	-	-	396.785
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	369.323	13.478	5.704	6.269	-	6.269	2.011	-	-	-	-	396.785
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>369.323</b>	<b>13.478</b>	<b>5.704</b>	<b>6.269</b>	<b>-</b>	<b>6.269</b>	<b>2.011</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>396.785</b>

*(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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.008	2.912	3.212	-	3.212	1.120	-	-
ANG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.470	2.792	3.057	-	3.057	0.891	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Obligation Authority</b>	<b>13.478</b>	<b>5.704</b>	<b>6.269</b>	<b>-</b>	<b>6.269</b>	<b>2.011</b>	<b>-</b>	<b>-</b>

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

**Appropriation / Budget Activity / Budget Sub Activity:** 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh **P-1 Line Item Number / Title:** 3640GC0401 / M119 Modifications

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

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

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	GC0401 / M119 Modifications (Increase Performance)		A		- / 369.323	- / 13.478	- / 5.704	- / 6.269	- / -	- / 6.269
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 369.323</b>	<b>- / 13.478</b>	<b>- / 5.704</b>	<b>- / 6.269</b>	<b>- / -</b>	<b>- / 6.269</b>

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	GC0401 / M119 Modifications (Increase Performance)		A		- / 2.011	- / -	- / -	- / -	- / -	- / 396.785
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 2.011</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 396.785</b>

\*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 2020 Base procurement dollars in the amount of \$6.269 million supports:

- Retrofit and installation of previously purchased hardware and software modifications. Retrofit teams will update the hardware on the recoil system and 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.
- Modification to DFCS software will include the Resiliency and Software Assurance Modification (RSAM) which is an update to the Global Positioning System (GPS) to provide a more robust capability to receive accurate signal and guard against spoofing. Modification to DFCS hardware will include replacement radio integration hardware (brackets and mounts). The radio currently in use in the DFCS is approaching obsolescence due to an inability to support new encrypted wave form. The replacement radio will ensure continued ability to interface with the Fire Direction Center and receive accurate fire missions.
- Program management supports: Lifecycle management, coordination & synchronization of field artillery solutions, technical oversight of projects, and business management functions.

"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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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20	<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications	<b>Modification Number / Title:</b> GC0401 / M119 Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	369.323	13.478	5.704	6.269	-	6.269	2.011	-	-	-	-	396.785
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	369.323	13.478	5.704	6.269	-	6.269	2.011	-	-	-	-	396.785
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>369.323</b>	<b>13.478</b>	<b>5.704</b>	<b>6.269</b>	<b>-</b>	<b>6.269</b>	<b>2.011</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>396.785</b>

*(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:**

Modifications to M119A2 Howitzer.

Mod 1 (Digitization): Procurement of the Digital Fire Control System contracted separately for each major component, with various contract award dates. Application occurs in Battalion sets of 17 each over two-month periods.

Mod 2 (Recoil Capability Package): New recoil system which enhances the survivability of the M119. The recoil system upgrade consists of the recoil buffer, recuperator, and suspension modification.

Mod 3 (TADSS): Training Aids, Devices, Simulators and Simulations (TADSS) for use in training artillerymen and maintainers in fielded units as well as in classroom instruction at school houses.

Mod 4 (Power System): Procure new power supply for the M119A3 Digital Fire Control System. The modification increased system electrical power to meet system operating requirements for low temperature environments.

Mod 5 (Durability): Procurement of: 502 each lightweight more durable titanium firing platforms, 502 each Fire Control Computer (FCC) covers to protect FCC from damage and, 250 each FCC thumb sticks/mouse to allow FCCs with damaged touch screens to remain mission capable. Prior years optimized the design of the spades on the M119 howitzer to increase durability and decrease weight.

Mod 6 (Retrofit and Composite Fielding Activities): Retrofit current howitzer fleet with upgraded recoil capability package, Titanium Firing Platform, Digital Fire Control System components, Resiliency and Software Assurance Modification, Blast Over Pressure software upgrade and Software Defined Radio. Fielding of the Digital Fire Control System will complete in FY18, while other retrofit activities will continue through FY21.

Mod 7 (Program Management): Program management support to the M119A3 Howitzer: lifecycle management, coordination & synchronization of field artillery solutions, technical oversight of projects, and business management functions.

Mod 8 (Software, Cyber Security) Resiliency Software Assurance Modification (RSAM): Qualify the Resiliency and Software Assurance Modification to ensure a robust GPS capability on the M119 howitzer.

Apply software upgrade to the GPS GB-GRAM receiver on the M119 fleet via a Modification Work Order. Upgrade software on the FCC to more accurately account for Blast Over Pressure effects on M119 crew and send a warning when safety limits approach.

Mod 9 (Digital Fire Control Tech Refresh) Procures integration hardware, such as cables and mounting brackets for software defined radio into digital fire control of M119 platform.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.008	2.912	3.212	-	3.212	1.120	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.470	2.792	3.057	-	3.057	0.891	-	-	-
<b>Total:</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army	<b>Date:</b> March 2019
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20	<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications	<b>Modification Number / Title:</b> GC0401 / M119 Modifications
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
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Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Secondary Distribution	Total Obligation Authority	13.478	5.704	6.269	-	6.269	2.011	-	-	-

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date: March 2019</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20					<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications					<b>Modification Number / Title:</b> GC0401 / M119 Modifications			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> M119A2/A3 Howitzer				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
<b>Procurement</b>													
<b>Modification Item 1 of 9: Digitization</b>													
A Kits													
Recurring													
Integration Prod/Init Spares	502 / 133.497	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	502 / 133.497
Logistics & Fielding	- / 16.883	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 16.883
Program Management	- / 11.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 11.409
System Engineering	- / 19.576	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 19.576
Engineering Change Orders (ECO)	- / 15.723	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 15.723
<b>Subtotal: Recurring</b>	<b>502 / 197.088</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>502 / 197.088</b>
<b>Subtotal: Digitization</b>	<b>502 / 197.088</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>502 / 197.088</b>
<b>Modification Item 2 of 9: Recoil Capability Package</b>													
A Kits													
Recurring													
Recoil System Upgrade	502 / 47.579	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	502 / 47.579
<b>Subtotal: Recurring</b>	<b>502 / 47.579</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>502 / 47.579</b>
<b>Subtotal: Recoil Capability Package</b>	<b>502 / 47.579</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>502 / 47.579</b>
<b>Modification Item 3 of 9: Training Devices (TADSS)</b>													
A Kits													
Non-Recurring													
Training Devices	- / 9.592	- / 3.878	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 13.470
<b>Subtotal: Non-Recurring</b>	<b>- / 9.592</b>	<b>- / 3.878</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 13.470</b>
<b>Subtotal: Training Devices (TADSS)</b>	<b>- / 9.592</b>	<b>- / 3.878</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 13.470</b>
<b>Modification Item 4 of 9: Power System Management</b>													
A Kits													
Non-Recurring													
Power System Mods	502 / 6.815	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	502 / 6.815
<b>Subtotal: Non-Recurring</b>	<b>502 / 6.815</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>502 / 6.815</b>
<b>Subtotal: Power System Management</b>	<b>502 / 6.815</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>502 / 6.815</b>
<b>Modification Item 5 of 9: Durability Modification</b>													
A Kits													

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<b>Exhibit P-3a, Individual Modification: PB 2020 Army</b>										<b>Date: March 2019</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20				<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications						<b>Modification Number / Title:</b> GC0401 / M119 Modifications		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							<b>MDAP/MAIS Code:</b>					
<b>Models of Systems Affected:</b> M119A2/A3 Howitzer				<b>Modification Type:</b> Increase Performance				<b>Related RDT&amp;E PEs:</b>				
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
<b>Non-Recurring</b>												
Spades	- / 2.335	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.335
Fire Control Computer Thumbsticks	- / 1.658	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.658
Titanium Firing Platforms	502 / 24.769	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	502 / 24.769
Fire Control Computer Cover	- / 1.443	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.443
<b>Subtotal: Non-Recurring</b>	<b>502 / 30.205</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>502 / 30.205</b>
<b>Subtotal: Durability Modification</b>												
	502 / 30.205	- / -	- / -	- / 0.000	- / -	- / 0.000	- / -	- / -	- / -	- / -	- / -	502 / 30.205
<b>Modification Item 6 of 9: Retrofit and Composite Fielding Activities</b>												
<b>A Kits</b>												
<b>Recurring</b>												
Retrofit and Composite Fielding Activiti	- / 174.266	- / 9.600	- / 2.171	- / 1.684	- / -	- / 1.684	- / 0.822	- / -	- / -	- / -	- / 0.000	- / 88.543
<b>Subtotal: Recurring</b>	<b>- / 174.266</b>	<b>- / 9.600</b>	<b>- / 2.171</b>	<b>- / 1.684</b>	<b>- / -</b>	<b>- / 1.684</b>	<b>- / 0.822</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 88.543</b>
<b>Subtotal: Retrofit and Composite Fielding Activities</b>												
	- / 174.266	- / 9.600	- / 2.171	- / 1.684	- / -	- / 1.684	- / 0.822	- / -	- / -	- / -	- / -	- / 88.543
<b>Modification Item 7 of 9: Program Management</b>												
<b>A Kits</b>												
<b>Recurring</b>												
Program Management	- / -	- / -	- / 1.003	- / 1.122	- / -	- / 1.122	- / 1.189	- / -	- / -	- / -	- / 0.000	- / 3.314
<b>Subtotal: Recurring</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 1.003</b>	<b>- / 1.122</b>	<b>- / -</b>	<b>- / 1.122</b>	<b>- / 1.189</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 3.314</b>
<b>Subtotal: Program Management</b>												
	- / -	- / -	- / 1.003	- / 1.122	- / -	- / 1.122	- / 1.189	- / -	- / -	- / -	- / -	- / 3.314
<b>Modification Item 8 of 9: Software, Cyber Security</b>												
<b>A Kits</b>												
<b>Non-Recurring</b>												
Blast Over Pressure Mitigation Software	- / 13.778	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 13.778
RSAM	- / -	- / -	- / -	- / 0.683	- / -	- / 0.683	- / -	- / -	- / -	- / -	- / 0.000	- / 0.683
<b>Subtotal: Non-Recurring</b>	<b>- / 13.778</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.683</b>	<b>- / -</b>	<b>- / 0.683</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 14.461</b>
<b>Subtotal: Software, Cyber Security</b>												
	- / 13.778	- / -	- / -	- / 0.683	- / -	- / 0.683	- / -	- / -	- / -	- / -	- / -	- / 14.461
<b>Modification Item 9 of 9: Digital Fire Control Tech Refresh</b>												
<b>A Kits</b>												
<b>Non-Recurring</b>												
Software Defined Radio	- / -	- / -	- / 2.530	- / 2.780	- / -	- / 2.780	- / -	- / -	- / -	- / -	- / 0.000	- / 15.310

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**Exhibit P-3a, Individual Modification: PB 2020 Army** **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20	<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications	<b>Modification Number / Title:</b> GC0401 / M119 Modifications
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**ID Code** (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

**Models of Systems Affected:** M119A2/A3 Howitzer **Modification Type:** Increase Performance **Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<i>Subtotal: Non-Recurring</i>	- / -	- / -	- / 2.530	- / 2.780	- / -	- / 2.780	- / -	- / -	- / -	- / -	- / -	- / 5.310
<i>Subtotal: Digital Fire Control Tech Refresh</i>	- / -	- / -	- / 2.530	- / 2.780	- / -	- / 2.780	- / -	- / -	- / -	- / -	- / -	- / 5.310
<i>Subtotal: Procurement, All Modification Items</i>	2,008 / 369.323	- / 13.478	- / 5.704	- / 6.269	- / -	- / 6.269	- / 2.011	- / -	- / -	- / -	- / -	2,008 / 396.785
<b>Installation</b>												
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>												
<b>Total Cost (Procurement + Support + Installation)</b>	369.323	13.478	5.704	6.269	-	6.269	2.011	-	-	-	-	396.785

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications			<b>Modification Number / Title:</b> GC0401 / M119 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Modification Item 1 of 9:</b> Digitization							
<b>Manufacturer Information</b>							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 11			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Organic					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications			<b>Modification Number / Title:</b> GC0401 / M119 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Modification Item 2 of 9:</b> Recoil Capability Package							
<b>Manufacturer Information</b>							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 2			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Organic						<b>Installation Quantity:</b> 0	

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications			<b>Modification Number / Title:</b> GC0401 / M119 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 3 of 9:</b> Training Devices (TADSS)							
<b>Manufacturer Information</b>							
Manufacturer Name: Organic				Manufacturer Location: Various			
Administrative Leadtime (in Months): 9				Production Leadtime (in Months): 1			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Jun 2017						
Delivery Dates	Jul 2017						
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Organic						<b>Installation Quantity:</b> 0	



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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications			<b>Modification Number / Title:</b> GC0401 / M119 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 4 of 9:</b> Power System Management							
<b>Manufacturer Information</b>							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 2			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Organic					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications			<b>Modification Number / Title:</b> GC0401 / M119 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 5 of 9:</b> Durability Modification							
<b>Manufacturer Information</b>							
Manufacturer Name: Howmet Corporation				Manufacturer Location: Hampton, VA			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 14			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Organic					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications			<b>Modification Number / Title:</b> GC0401 / M119 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 6 of 9:</b> Retrofit and Composite Fielding Activities							
<b>Manufacturer Information</b>							
Manufacturer Name: Loyal Source Government Services					Manufacturer Location: Various		
Administrative Leadtime (in Months): 3					Production Leadtime (in Months): 2		
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates	Jan 2018	Jan 2019	Jan 2020	Jan 2021			
Delivery Dates	Mar 2018	Mar 2019	Mar 2020	Mar 2021			
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Contractor and Organic					<b>Installation Quantity:</b> 502		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications			<b>Modification Number / Title:</b> GC0401 / M119 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 7 of 9:</b> Program Management							
<b>Manufacturer Information</b>							
Manufacturer Name: NA				Manufacturer Location: NA			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates		Oct 2018	Oct 2019	Oct 2020			
Delivery Dates		Oct 2018	Oct 2019	Oct 2020			
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Organic					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army					<b>Date:</b> March 2019		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications			<b>Modification Number / Title:</b> GC0401 / M119 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 8 of 9:</b> Software, Cyber Security							
<b>Manufacturer Information</b>							
Manufacturer Name: NA				Manufacturer Location: NA			
Administrative Leadtime (in Months): 5				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates			Mar 2020				
Delivery Dates			Mar 2020				
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Organic					<b>Installation Quantity:</b> 0		

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<b>Exhibit P-3a, Individual Modification:</b> PB 2020 Army						<b>Date:</b> March 2019	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A / 02 / 20			<b>P-1 Line Item Number / Title:</b> 3640GC0401 / M119 Modifications			<b>Modification Number / Title:</b> GC0401 / M119 Modifications	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 9 of 9:</b> Digital Fire Control Tech Refresh							
<b>Manufacturer Information</b>							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 1				Production Leadtime (in Months): 1			
<b>Dates</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
Contract Dates		Nov 2018	Nov 2019				
Delivery Dates		Dec 2018	Dec 2019				
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Organic					<b>Installation Quantity:</b> 0		

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 7054G02100 / Mortar Modification
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	127.657	3.198	3.965	1.693	-	1.693	1.691	1.691	1.692	1.692	-	143.279
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	127.657	3.198	3.965	1.693	-	1.693	1.691	1.691	1.692	1.692	-	143.279
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>127.657</b>	<b>3.198</b>	<b>3.965</b>	<b>1.693</b>	<b>-</b>	<b>1.693</b>	<b>1.691</b>	<b>1.691</b>	<b>1.692</b>	<b>1.692</b>	<b>-</b>	<b>143.279</b>

*(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> )	181.589	12.792	15.672	211.625	-	211.625	211.375	211.375	211.500	211.500	-	114.991

**Description:**

Mortar System Modifications for 60mm Light Weight M224A1, 81mm Light Weight M252A1, 120mm M120A1/M121 Mortar Weapon Systems, 81mm Bipod retrofit, purchasing systems for Joint Light Tactical Vehicle (JLTV), Handle and Firing Mechanism improvement for the M224A1 mortar, 60mm Bipod upgrade, tritium free range indicator, and M326 Mortar Stowage Kit (MSK).

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.198	3.965	1.693	-	1.693	1.691	1.691	1.692
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	<b>3.198</b>	<b>3.965</b>	<b>1.693</b>	<b>-</b>	<b>1.693</b>	<b>1.691</b>	<b>1.691</b>	<b>1.692</b>

**Justification:**

FY 2020 Base procurement dollars in the amount of \$1.693 million supports the procurement of 8 each M326 MSK Modification/improvements. The modification is required to ensure compatibility of the M326 MSK with the new Joint Light Tactical Vehicle (JLTV) trailer, as well as potential future 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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh	<b>P-1 Line Item Number / Title:</b> 9280GC0925 / Modifications Less Than \$5.0m (WOCV-WTCV)
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	206.960	2.219	5.577	4.327	-	4.327	2.606	2.362	2.338	2.716	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	206.960	2.219	5.577	4.327	-	4.327	2.606	2.362	2.338	2.716	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>206.960</b>	<b>2.219</b>	<b>5.577</b>	<b>4.327</b>	<b>-</b>	<b>4.327</b>	<b>2.606</b>	<b>2.362</b>	<b>2.338</b>	<b>2.716</b>	<b>Continuing</b>	<b>Continuing</b>

*(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 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	2.219	5.577	4.327	-	4.327	2.606	2.362	2.338	2.716
<b>Total:</b>									
Quantity	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b>	<b>2.219</b>	<b>5.577</b>	<b>4.327</b>	<b>-</b>	<b>4.327</b>	<b>2.606</b>	<b>2.362</b>	<b>2.338</b>	<b>2.716</b>

**Justification:**

FY 2020 Base procurement dollars in the amount of \$4.327 million supports the Active Army by procuring 1,190 M192 MWO Kits to modify fielded systems and 75 M205 Tripod MWO Kits. 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. The M205 Tripod MWO Kit improves performance of this lightweight tripod for the dismounted M2/M2A1/MK19 Machines Guns. Funding also supports the M197 MWO Kit that 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.

The M205 Tripod MWO Kit is a New Start in FY 2020.

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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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 20: Mod of Weapons and Other Combat Veh		<b>P-1 Line Item Number / Title:</b> 9280GC0925 / Modifications Less Than \$5.0m (WOCV-WTCV)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		

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**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities	<b>P-1 Line Item Number / Title:</b> 1862GL3200 / Items Less Than \$5.0m (WOCV-WTCV)
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	133.315	5.075	4.571	3.066	-	3.066	2.766	2.869	2.977	3.174	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	133.315	5.075	4.571	3.066	-	3.066	2.766	2.869	2.977	3.174	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>133.315</b>	<b>5.075</b>	<b>4.571</b>	<b>3.066</b>	<b>-</b>	<b>3.066</b>	<b>2.766</b>	<b>2.869</b>	<b>2.977</b>	<b>3.174</b>	<b>Continuing</b>	<b>Continuing</b>

*(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:**

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 (BII), M500 Mossberg Shotguns, MP5KA Submachine Guns to include magazines, clamps, holsters, lanyards and cleaning kits. Funding will also purchase Non-Standard weapons to support the Regionally Aligned Forces (RAF) as well 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, pistols and accessories: Air Rifles, 22 caliber Pistols and Rifles, Shooting glasses and scopes, Free Pistols, Shot Guns and bolt action rifles.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	5.075	4.571	3.066	-	3.066	2.766	2.869	2.977	3.174
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	<b>5.075</b>	<b>4.571</b>	<b>3.066</b>	<b>-</b>	<b>3.066</b>	<b>2.766</b>	<b>2.869</b>	<b>2.977</b>	<b>3.174</b>

**Justification:**

FY 2020 Base procurement dollars in the amount of \$3.066 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. The man/weapon interface at this competitive level is important. Between competitions the AMU fires constantly to hone their skills and maintain their competitive edge. Weapons of all types are fired, and even with the extremely high level of maintenance provided, these weapons exceed their stated effective life projections faster. This requires the weapons to be coded out and replaced regularly. 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 missions. The Army will procure Biathlon Rifles for the Army National Guard Biathlon Teams. Supports senior commanders and key personnel as High Risk Personnel (HRP). HPRs 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

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities		<b>P-1 Line Item Number / Title:</b> 1862GL3200 / Items Less Than \$5.0m (WOCV-WTCV)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>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. The Army will procure 350 SCW systems for PSD. Also procures small caliber rifles for the law enforcement program to control wildlife on Army Posts.</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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities	<b>P-1 Line Item Number / Title:</b> 3270GC0050 / Production Base Support (WOCV-WTCV)
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	326.984	0.992	3.284	2.651	-	2.651	3.048	3.534	3.600	3.701	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	326.984	0.992	3.284	2.651	-	2.651	3.048	3.534	3.600	3.701	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>326.984</b>	<b>0.992</b>	<b>3.284</b>	<b>2.651</b>	<b>-</b>	<b>2.651</b>	<b>3.048</b>	<b>3.534</b>	<b>3.600</b>	<b>3.701</b>	<b>Continuing</b>	<b>Continuing</b>

*(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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.992	3.284	2.651	-	2.651	3.048	3.534	3.600
<b>Total: Secondary Distribution</b>	Quantity	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>0.992</b>	<b>3.284</b>	<b>2.651</b>	<b>-</b>	<b>2.651</b>	<b>3.048</b>	<b>3.534</b>	<b>3.600</b>

**Justification:**

FY 2020 Base procurement dollars in the amount of \$2.651million support the following:

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2020 Army		<b>Date:</b> March 2019
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities		<b>P-1 Line Item Number / Title:</b> 3270GC0050 / Production Base Support (WOCV-WTCV)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>At Aberdeen Test Center (ATC), upgrades Fire Control Instrumentation, which in many cases is over 10 years old and has exceeded its economic useful life. The effort will replace or upgrade instrumentation required to assess weapon fire control system performance on a wide range of test items. New weapon and sight HD video cameras, recorders, and digital processing video systems and telemetry systems will provide equal or greater capability at less annual operations and sustainment.</p> <p>At ATC and Yuma Test Center (YTC): replace and upgrade the current 35-year-old configurations of the mobile dynamometer control systems. The upgrades will include programmable dynamometer control, using any combination of vehicle speed, drawbar force and/or absorbed power. This effort will result in more reliable dynamometer operations, reduced downtimes, and reduced Operations and Maintenance (O&amp;M) costs, providing increased capabilities at ATC and YTC for automotive powertrain, winch, and fuel consumption testing.</p> <p>At White Sand Test Center (WSTC): maintains and upgrades White Sands Missile Range's directed energy, and High Power Electromagnetic (HPEM) effects test simulators. WSTC will repair, upgrade, and replace existing equipment and instrumentation that no longer meets regulatory, customer, and mission requirements due to excessive use, age, deterioration of components, new mission requirements and outdated technologies. This effort will result in environmental regulatory compliance, safety improvements, reduced down-times and turn-around times, and reduced O&amp;M costs at WSTC.</p> <p>This instrumentation is required to ensure complete and accurate test data are collected and safety and environmental hazards are minimized. Benefits of this project include increased test efficiencies and decreased costs and risk to Army Program Managers.</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 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities	<b>P-1 Line Item Number / Title:</b> 3400GC0075 / Industrial Preparedness
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	121.720	4.000	-	-	-	-	-	-	-	-	-	125.720
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	121.720	4.000	-	-	-	-	-	-	-	-	-	125.720
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>121.720</b>	<b>4.000</b>	-	-	-	-	-	-	-	-	-	<b>125.720</b>

*(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 for Maintenance of Laid-away Industrial Facilities (MLIF), the maintenance of laid away portions of active weapons production plants, and the storage, protection, and maintenance of laid away Government-owned equipment being stored on-site at Government-owned plants. The funding represents the storage costs for laid away production items from Watervliet Arsenal (WVA) and Rock Island Arsenal (RIA). The funds also pay for storage, facilities/equipment maintenance, and inspection of Industrial Plant Equipment (IPE), laid away machine tools, gages, special measuring equipment, tooling and fixturing stored at WVA and RIA.

Secondary Distribution	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.000	-	-	-	-	-	-	-	-
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	<b>4.000</b>	-	-	-	-	-	-	-	-

**Justification:**

FY 2020 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.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2020 Army **Date:** March 2019

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2033A: Procurement of W&TCV, Army / BA 02: Weapons and Other Combat Vehicles / BSA 30: Support Equipment & Facilities	<b>P-1 Line Item Number / Title:</b> 4010GC0076 / Small Arms Equipment (Soldier Enh Prog)
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	113.331	1.573	1.640	-	-	-	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	113.331	1.573	1.640	-	-	-	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>113.331</b>	<b>1.573</b>	<b>1.640</b>	-	-	-	-	-	-	-	<b>Continuing</b>	<b>Continuing</b>

*(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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.573	1.640	-	-	-	-	-	-	-
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	<b>1.573</b>	<b>1.640</b>	-	-	-	-	-	-	-

**Justification:**

FY 2020 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."