Department of Defense Fiscal Year (FY) 2021 Budget Estimates

February 2020



Army

Justification Book of

Missile Procurement, Army

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Army • Budget Estimates FY 2021 • Procurement

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Cost Statement

The following Justification Books were prepared at a cost of \$460,860: Aircraft (ACFT), Missile (MSLS), Weapons & Tracked Combat Vehicles (WTCV), Ammunition (AMMO), Other Procurement Army (OPA) 1 - Tactical & Support Vehicles, Other Procurement Army (OPA) 2 – Communications & Electronics, Other Procurement Army (OPA) 3 & 4 - Other Support Equipment & Spares, Research, Development, Test and Evaluation (RDTE) for: Budget Activity 1, Budget Activity 2, Budget Activity 3, Budget Activity 4, Budget Activity 5A, Budget Activity 5B, Budget Activity 6, Budget Activity 7, and Budget Activity 8.

MISSILE PROCUREMENT, ARMY

Appropriation Language

For construction, procurement, production, modification, and modernization of Missiles, equipment, including ordnance, spare parts, and accessories therefore; specialized equipment; expansion of public and private plants, including the land necessary therefore and such lands and interests therein, may be acquired, and construction prosecuted therein 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; \$4,332,600,000 to remain available for obligation until September 30, 2023.

The Fiscal Year (FY) 2021 Overseas Contingency Operations funding can be separated into the following categories:

- •OCO for Direct War Costs (\$431,921,000): 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 (\$449,671,000): 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.

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

15 Jan 2020

Appropriation	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 OCO Enacted	FY 2020 Emergency
Missile Procurement, Army	4,896,060	2,995,673	1,423,589	
Total Department of the Army	4,896,060	2,995,673	1,423,589	

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

15 Jan 2020

FY 2021

Appropriation	FY 2020 Total Enacted	FY 2021 Base	FY 2021 OCO for Base Requirements	OCO for Direct War and Enduring Costs
Missile Procurement, Army	4,419,262	3,491,507	2	881,592
Total Department of the Army	4,419,262	3,491,507		881,592

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

15 Jan 2020

	FY 2021	FY 2021
	Total	Total
Appropriation	000	(Base + OCO)
Missile Procurement, Army	881,592	4,373,099
Total Department of the Army	881,592	4,373,099

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

15 Jan 2020

Appropriation: Missile Procurement, Army

Budget Activity	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 OCO Enacted	FY 2020 Emergency
02. Other Missiles	3,521,758	2,443,813	1,082,558	
03. Modification of Missiles	1,338,946	514,823	341,031	
04. Spares and Repair Parts	27,737	26,444		
05. Support Equipment and Facilities	7,619	10,593		
Total Missile Procurement, Army	4,896,060	2,995,673	1,423,589	

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

15 Jan 2020

FY 2021

Appropriation: Missile Procurement, Army

Budget Activity	FY 2020 Total Enacted	FY 2021 Base	FY 2021 OCO for Base Requirements	OCO for Direct War and Enduring Costs
02. Other Missiles	3,526,371	2,721,591		783,158
03. Modification of Missiles	855,854	755,848		98,434
04. Spares and Repair Parts	26,444	5,090		
05. Support Equipment and Facilities	10,593	8,978		
Total Missile Procurement, Army	4,419,262	3,491,507		881,592

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

15 Jan 2020

Appropriation: Missile Procurement, Army

	FY 2021 Total	FY 2021 Total
Budget Activity	oco	(Base + OCO)
34 CO		
02. Other Missiles	783,158	3,504,749
03. Modification of Missiles	98,434	854,282
04. Spares and Repair Parts		5,090
05. Support Equipment and Facilities		8,978
Total Missile Procurement, Army	881,592	4,373,099

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Department of the Army FY 2021President's Budget Exhibit P-1 FY 2021 President's Budget Total Obligational Authority

(Dollars in Thousands)

Appropriation: 2032A Missile Procurement, Army

Line No Item Nomenclature	Ident Code		TY 2019 Ase + OCO) Ltv Cost		2020 Enacted V Cost		FY 2020 D Enacted Lty Cost	FY 2020 Emergency Quantity Cost	S e C
			-		-		-		-
Budget Activity 02: Other Missiles									
Surface-to-Air Missile System									
1 System Integration and Test Procurement	A		105,395		107,157				U
2 M-SHORAD - Procurement	А			10	75,000	22	158,300		U
3 MSE Missile		240	1,131,276	138	664,499	9	37,938		U
4 PRECISION STRIKE MISSILE (PRSM)	A								U
5 INDIRECT FIRE PROTECTION CAPABILITY INC 2-1	Α		197,822		9,337				U
Air-To-Surface Missile System									
6 Hellfire Sys Summary	Α	2034	193,674	2298	189,284	2604	236,265		U
7 Joint Air-to-Ground MSLS (JAGM)		721	256,462	494	199,295				U
8 Long Range Precision Munition	А								U
Anti-Tank/Assault Missile Sys									
9 Javelin (AAWS-M) System Summary		1247	245,485	672	138,405	25	4,389		U
10 TOW 2 System Summary Less: Advance Procurement (PY)	А	1228	(139,011) (-19,949)	1460	(118,458)				U U
			119,062		118,458			- 100 Jan 100	
11 Guided MLRS Rocket (GMLRS)		7668	975,507	5124	744,810	3087	431,596		U
12 MLRS Reduced Range Practice Rockets (RRPR)		2214	20,964	2982	27,555				U
13 High Mobility Artillery Rocket System (HIMARS		17	171,138						U
14 ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM	В			131	170,013	101	130,770		U

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Department of the Army FY 2021President's Budget Exhibit P-1 FY 2021 President's Budget Total Obligational Authority

(Dollars in Thousands)

Appropriation: 2032A Missile Procurement, Army

Line	Ident	Total	7 2020 L Enacted		2021 Base	FY 20 OCO for Require	Base ements	Dir and C	O for ect War Enduring Costs	S e
No Item Nomenclature	Code	Quantit		Quantit		Quantity	Cost	Quantit	y Cost	- -
Budget Activity 02: Other Missiles										
Surface-to-Air Missile System										
1 System Integration and Test Procurement	A		107,157							U
2 M-SHORAD - Procurement	Α	32	233,300	50	378,654			22	158,300	Ü
3 MSE Missile		147	702,437	122	603,188			46	176,585	Ū
4 PRECISION STRIKE MISSILE (PRSM)	A			30	49,941					Ū
5 INDIRECT FIRE PROTECTION CAPABILITY INC 2-I	А		9,337		106,261					U
Air-To-Surface Missile System										
6 Hellfire Sys Summary	A	4902	425,549	428	91,225			3090	236,265	U
7 Joint Air-to-Ground MSLS (JAGM)		494	199,295	657	213,397					Ū
8 Long Range Precision Munition	A				45,307					U
Anti-Tank/Assault Missile Sys										
9 Javelin (AAWS-M) System Summary		697	142,794	773	190,325					U
10 TOW 2 System Summary Less: Advance Procurement (PY)	A	1460	(118,458)	1405	(121,074)					U
Less: Advance Procurement (PI)			118,458		121,074					
11 Guided MLRS Rocket (GMLRS)		8211	1,176,406	5384	850,157			904	127,015	Ŭ
12 MLRS Reduced Range Practice Rockets (RRPR)		2982	27,555	3270	30,836					U
13 High Mobility Artillery Rocket System (HIMARS				5	41,226					U
14 ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM	В	232	300,783							U

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FY 2021

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

Appropriation: 2032A Missile Procurement, Army

		To	2021 tal	FY 2021 Total		
Line	Ident	_	CO Co	•	e + 0CO)	е
No Item Nomenclature	Code	Quantity		Quantit	-	C
Budget Activity 02: Other Missiles						
Surface-to-Air Missile System						
1 System Integration and Test Procurement	А					U
2 M-SHORAD - Procurement	A	22	158,300	72	536,954	U
3 MSE Missile		46	176,585	168	779,773	U
4 PRECISION STRIKE MISSILE (PRSM)	A			30	49,941	U
5 INDIRECT FIRE PROTECTION CAPABILITY INC 2-I	A				106,261	U
Air-To-Surface Missile System						
6 Hellfire Sys Summary	A	3090	236,265	3518	327,490	U
7 Joint Air-to-Ground MSLS (JAGM)				657	213,397	U
8 Long Range Precision Munition	А				45,307	U
Anti-Tank/Assault Missile Sys						
9 Javelin (AAWS-M) System Summary				773	190,325	U
10 TOW 2 System Summary Less: Advance Procurement (PY)	A			1405	(121,074)	U
less. Advance Procurement (Pr)		-				_
					121,074	
11 Guided MLRS Rocket (GMLRS)		904	127,015	6288	977,172	Ū
12 MLRS Reduced Range Practice Rockets (RRPR)				3270	30,836	U
13 High Mobility Artillery Rocket System (HIMARS				5	41,226	U
14 ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM	В					U

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

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Appropriation: 2032A Missile Procurement, Army

Line	Ident	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 OCO Enacted	FY 2020 S Emergency e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	Quantity Cost c
15 LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS	А	1225 104,973		1130 83,300	U
Total Other Missiles		3,521,758	2,443,813	1,082,558	
Budget Activity 03: Modification of Missiles					
Modifications					
16 Patriot Mods		323,228	278,716		U
17 ATACMS MODS	A	397,236	80,320		U
18 GMLRS MOD	A	266	5,094		U
19 Stinger Mods		94,756	81,615	7,500	Ū
20 AVENGER MODS		31,093	14,107		U
21 ITAS/TOW Mods		3,173	3,469		Ω
22 MLRS Mods		478,998	39,019	333,531	U
23 HIMARS Modifications		10,196	12,483		U
Total Modification of Missiles		1,338,946	514,823	341,031	
Budget Activity 04: Spares and Repair Parts					
Spares and Repair Parts					
24 Spares And Repair Parts		27,737	26,444		U
Total Spares and Repair Parts		27,737	26,444		

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

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FY 2021

Appropriation: 2032A Missile Procurement, Army

Line No Item Nomenclature	Ident Code	FY 20 Total Er Quantity		FY 2021 Base Quantity Cost		FY 2021 OCO for Base Requirements Quantity Cost		OCO for Direct War and Enduring Costs Quantity Cost		
15 LETHAL MINIATURE AERIAL MISSILE SYSTEM (LM2	AMS A	1130	83,300					1130	84,993	
Total Other Missiles			526,371		21,591				783,158	
Budget Activity 03: Modification of Missiles										
Modifications										
16 Patriot Mods		2	278,716	2	278,050					U
17 ATACMS MODS	A		80,320	1	41,690				78,434	Ū
18 GMLRS MOD	A		5,094							U
19 Stinger Mods			89,115							U
20 AVENGER MODS			14,107		13,942					U
21 ITAS/TOW Mods			3,469		5,666					U
22 MLRS Mods		:	372,550	3	310,419				20,000	U
23 HIMARS Modifications			12,483		6,081			542		Ū
Total Modification of Missiles			855,854		755,848				98,434	
Budget Activity 04: Spares and Repair Parts										
Spares and Repair Parts										
24 Spares And Repair Parts			26,444		5,090	-		200		Ū
Total Spares and Repair Parts			26,444		5,090					

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Department of the Army FY 2021President's Budget Exhibit P-1 FY 2021 President's Budget Total Obligational Authority

al Obligational Authority 15 Jan 2020 (Dollars in Thousands)

Appropriation: 2032A Missile Procurement, Army

Line	Ident	To	2021 otal OCO	FY 2 Tot (Base	S e	
No Item Nomenclature	Code	Quantity	•	Quantity	Cost	
15 LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS	A	1130	84,993	1130	84,993	U
Total Other Missiles			783,158		504,749	51
Budget Activity 03: Modification of Missiles						
Modifications						
16 Patriot Mods					278,050	U
17 ATACMS MODS	A		78,434		220,124	U
18 GMLRS MOD	А					U
19 Stinger Mods						U
20 AVENGER MODS					13,942	U
21 ITAS/TOW Mods					5,666	U
22 MLRS Mods			20,000		330,419	U
23 HIMARS Modifications					6,081	
Total Modification of Missiles			98,434		854,282	•
Budget Activity 04: Spares and Repair Parts						
Spares and Repair Parts						
24 Spares And Repair Parts				===	5,090	Ū
Total Spares and Repair Parts		;		55	5,090	

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

15 Jan 2020

Appropriation: 2032A Missile Procurement, Army

		FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020		S
Line	Ident							Emerge	ncy	е
No Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	C
**** **********************************				*****					7777	-
Budget Activity 05: Support Equipment and Facilities										
Support Equipment & Facilities										
25 Air Defense Targets			6,417		10,593					U
26 Production Base Support		200	1,202	22		-				U
Total Support Equipment and Facilities			7,619		10,593					
Total Missile Procurement, Army			396,060	2,	995,673	1,4	123,589			

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

15 Jan 2020

FY 2021

Appropriation: 2032A Missile Procurement, Army

		FY 20	120	FY 2	021	FY 20 OCO for		OCO f Direct and End	War	s
Line	Ident	Total Enacted		Base		Requirements		Costs		e
No Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	С
4454; 100044004404404										-
Budget Activity 05: Support Equipment and Facilities										
Support Equipment & Facilities										
25 Air Defense Targets			10,593		8,978					U
26 Production Base Support										U
						7.77				
Total Support Equipment and Facilities			10,593		8,978					
					0.00				01 500	
Total Missile Procurement, Army		4,4	119,262	3,	491,507			8	81,592	

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

FY 2021

FY 2021

15 Jan 2020

Appropriation: 2032A Missile Procurement, Army

						S
		Tota	1	Total		
Line	Ident	OCO		(Base	+ OCO)	e
No Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	C
TOTAL TERRETARISATION						37
Budget Activity 05: Support Equipment and Facilities						
Support Equipment & Facilities						
25 Air Defense Targets					8,978	U
26 Production Base Support						Ü
Matal Granest Designant and Desilities					8,978	•
Total Support Equipment and Facilities				20	0,910	2
Total Missile Procurement, Army		8	81,592	4,	373,099	

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

Appropriation 2032A: Missile Procurement, Army

Line #	ВА	BSA	Line Item Number	Line Item Title	Page
1	02	10	7153C50016	System Integration and Test Procurement	1
2	02	10	8082C14300	M-SHORAD - Procurement	3
3	02	10	8260C53101	MSE Missile	11
4	02	10	8540C29600	PRECISION STRIKE MISSILE (PRSM)	23
5	02	10	8930C61001	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I	30
6	02	10	8930C61001	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I, Advance Procurement	37
7	02	20	1338C70000	Hellfire Sys Summary	
8	02	20	2605C70302	Joint Air-to-Ground MSLS (JAGM)	
9	02	20	2607C71300	Long Range Precision Munition	61
10	02	30	0648CC0007	Javelin (AAWS-M) System Summary	65
11	02	30	2104C59300	TOW 2 System Summary	77
12	02	30	2104C59300	TOW 2 System Summary, Advance Procurement	87
13	02	30	6005C64400	Guided MLRS Rocket (GMLRS)	91
14	02	30	6060C65405	MLRS Reduced Range Practice Rockets (RRPR)	103
15	02	30	6200C02901	High Mobility Artillery Rocket System (HIMARS)	113
16	02	30	6472C98510	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM	117

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Appropriation 2032A: Missile Procurement, Army

Line #	ВА	BSA	Line Item Number	Line Item Title	Page
17	02	30	6870C88001	LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	119

Appropriation 2032A: Missile Procurement, Army

Line #	ВА	BSA	Line Item Number	Line Item Title	Page
18	03	10	0962C50700	Patriot Mods	127
19	03	10	1823CA6700	ATACMS MODS	164
20	03	10	1824C57701	GMLRS MOD	169
21	03	10	2684C20000	Stinger Mods	171
22	03	10	2690CE8710	AVENGER MODS	173
23	03	10	3972C61700	ITAS/TOW Mods	186
24	03	10	6552C67500	MLRS Mods	191
25	03	10	6580C67501	HIMARS Modifications	201

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Appropriation 2032A: Missile Procurement, Army

Line #	ВА	BSA	Line Item Number	Line Item Title	Page
26	04	10	1242CA0250	Spares And Repair Parts	206

Appropriation 2032A: Missile Procurement, Army

Line #	ВА	BSA	Line Item Number	Line Item Title	Page
27	05	10	1242C93000	Air Defense Targets	209
28	05	10	4662CA0100	Production Base Support	215

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

Line Item Title	Line Item Number	Line #	ВА	BSA Page
ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM	6472C98510	16	02	30 117
ATACMS MODS	1823CA6700	19	03	10 164
AVENGER MODS	2690CE8710	22	03	10 173
Air Defense Targets	1242C93000	27	05	10 209
GMLRS MOD	1824C57701	20	03	10 169
Guided MLRS Rocket (GMLRS)	6005C64400	13	02	30 91
HIMARS Modifications	6580C67501	25	03	10 201
Hellfire Sys Summary	1338C70000	7	02	2041
High Mobility Artillery Rocket System (HIMARS)	6200C02901	15	02	30 113
INDIRECT FIRE PROTECTION CAPABILITY INC 2-I	8930C61001	5	02	10 30
INDIRECT FIRE PROTECTION CAPABILITY INC 2-I, Advance Procurement	8930C61001	6	02	10 37
ITAS/TOW Mods	3972C61700	23	03	10 186
Javelin (AAWS-M) System Summary	0648CC0007	10	02	3065
Joint Air-to-Ground MSLS (JAGM)	2605C70302	8	02	20 51
LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	6870C88001	17	02	30 119
Long Range Precision Munition	2607C71300	9	02	2061
M-SHORAD - Procurement	8082C14300	2	02	10 3

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Line Item Title	Line Item Number	Line #	ВА	BSA	Page
MLRS Mods	6552C67500	24	03	10	191
MLRS Reduced Range Practice Rockets (RRPR)	6060C65405	14	02	30	103
MSE Missile	8260C53101	3	02	10	11
PRECISION STRIKE MISSILE (PRSM)	8540C29600	4	02	10	23
Patriot Mods	0962C50700	18	03	10	127
Production Base Support	4662CA0100	28	05	10	215
Spares And Repair Parts	1242CA0250	26	04	10	206
Stinger Mods	2684C20000	21	03	10	171
System Integration and Test Procurement	7153C50016	1	02	10	1
TOW 2 System Summary	2104C59300	11	02	30	77
TOW 2 System Summary, Advance Procurement	2104C59300	12	02	30	87

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Lookup Matrix by Model

Model: Various

Model:	Various		
P-3a Inc	dividual Modification	ns	
Modi	ification Number	Modification Title	Applies to Multiple Models
	C50700	Patriot Mods	No
Model:	ATACMS		
P-3a Inc	dividual Modification	ns	
Modi	ification Number	Modification Title	Applies to Multiple Models
	CA6700	ATACMS MODS	No
Model:	Avenger Basic and	I Slew-to-Cue Systems	
P-3a Inc	dividual Modification	ns	
Modi	ification Number	Modification Title	Applies to Multiple Models
	CE8710	AVENGER MODS	No
Model:	NA		
P-3a Inc	dividual Modification	ns	
Modi	ification Number	Modification Title	Applies to Multiple Models
	C61700	ITAS/TOW Mods	No
Model:	M270A1		
P-3a Inc	dividual Modification	ns	
Modi	ification Number	Modification Title	Applies to Multiple Models
	C67500	MLRS Mods	No

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Model: M142 High Mobility	142 High Mobility Artillery Rocket System										
P-3a Individual Modification	ns en										
Modification Number	Modification Title	Applies to Multiple Models									
C67501	HIMARS Modifications	No									

Army • Budget Estimates FY 2021 • Procurement Exhibit P-1M, Procurement Programs - Modification Summary (Funding for Modifications)

Funding (\$ M)

P-3a Modification Title	PYS	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Exhibit P-3a										
Patriot Mods	4,162.964	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539
ATACMS MODS	522.737	397.236	80.320	141.690	78.434	220.124	-	-	-	-
AVENGER MODS	161.230	31.093	14.107	13.942	-	13.942	11.381	-	-	-
ITAS/TOW Mods	1,792.822	3.173	3.469	5.666	-	5.666	-	-	-	-
MLRS Mods	606.945	478.998	372.550	310.419	20.000	330.419	277.623	207.159	165.712	165.062
HIMARS Modifications	235.062	10.196	12.483	6.081	-	6.081	7.292	9.700	17.402	29.968
Totals (Total Obligation Authority)										
Total Obligation Authority	7,481.760	1,243.924	761.645	755.848	98.434	854.282	519.470	449.418	351.506	373.569

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air Missile System

7153C50016 / System Integration and Test Procurement

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

Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	503.504	105.395	107.157	-	-	-	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	503.504	105.395	107.157	-	-	-	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	503.504	105.395	107.157	-	-	-	-	-	-	-	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Ti	ne corresponding	g budget request	s are documente	ed elsewhere.)	Ŷ	*		
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

- System Integration and Test Procurement line (formerly Lower Tier Air and Missile Defense (LTAMD)) supports the Field Surveillance Program (FSP), PAC-3 Missile Support Center (P3MSC), International Engineering Services Program (IESP), Integrated Logistics Support (ILS), US Unique Engineering Services (ES), and System Engineering Program Management (SEPM) activities. The mission of the PATRIOT Advanced Capability-3 (PAC-3) Missile Field Surveillance Program (FSP) is required to ensure that the reliability, performance, and safety of fielded PAC-3 missiles remain within the classified system specification for the life of the system. Initial FSP tasks confirm the quality of design, materials, procedures, and processes used in the manufacture of the system. After missile deployment, results from surveillance firings, inspections, functional tests, Storage and Aging Programs, and depot level missile maintenance processing provide the data required for the assessment of reliability, performance, and safety of the missile stockpile. This includes PAC-3 missile tooling and test equipment. The PAC-3 missile is fielded under the Certified Round Concept. Under this approved concept, the PAC-3 missile is capable of being placed in extended storage as part of war reserve stocks or deployed in operational units for variable periods and then fired without intervening tests or checkouts. In accordance with the Certified Round Concept, the reliability/performance of the missile is certified by the Lower Tier Project Office (LTPO) to be at an acceptable level for a stated period of time or corrective action is taken.
- The certification of reliability is made possible through the use of the PAC-3 Missile Support Center (P3MSC) contract to use technical support and knowledge of the testing of discrete lots of component parts, subassemblies and assemblies which the prime contractor Lockheed Martin Missiles and Fire Control (LMMFC) provides as the only source of technical knowledge, expertise, and facilities to perform FSP activities and process PAC-3 missiles.
- The PATRIOT International Engineering Services Program provides continuing engineering support for system software and hardware for the life of the PATRIOT Air Defense System for US and international partners. The Engineering Services Program is designed to standardize and improve the PATRIOT system within the performance envelope described in the system specification. The support provided under this program includes PATRIOT software maintenance, Post Deployment Build 8/8.x(PDB-8/8.x), engineering support for PATRIOT peculiar hardware, government furnished equipment, logistics, technical data package, trainers, US Unique ES, and integrated diagnostics support system. This is accomplished through the investigation, analysis, and development of solutions to identified problems. Modifications to hardware are engineered for manufacturing implementation and retrofit of fielded hardware through the modification process. The Dismounted Patriot Information Coordination Central (D-PICC) effort is an example of rehosting tactical Patriot software maintained via engineering services to a smaller, more mobile hardware configuration that will allow flexible, tailorable deployment options by freeing up Battalion level ICC's.
- Systems Engineering and Project Management support encompasses the overall planning, management, and control of the PATRIOT Weapon System. Includes all Engineering and Program Management disciplines and activities. Program office core employee labor costs moved from Procurement to OMA in FY19 as part of an OSD auditability directive.
- Logistics Recurring includes all aspects of Integrated Logistics Support (ILS) management, e.g., maintenance support, facilities, personnel, training, testing, and fielding.
- Supports procuring, fielding, and supporting material solutions to counter cybersecurity and electronic warfare shortcomings to all elements of the Lower Tier Battle Space.

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air Missile System

7153C50016 / System Integration and Test Procurement

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

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Date: February 2020

Line Item MDAP/MAIS Code: N/A

Secondary	/ Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	105.395	107.157	-	-	-	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	105.395	107.157	-	-	-	-	-	-	-

Justification:

Beginning FY21, C50016 / System Integration and Test Procurement funding will be realigned to C50700 / Patriot Mods and C53101 / MSE Missile.

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air

8082C14300 / M-SHORAD - Procurement

Missile System

Program Elements for Code B Items: N/A

Other Related Program Elements: 0604117A

Line Item MDAP/MAIS Code: N/A

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	32	50	22	72	36	-	15	25	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	-	-	233.300	378.654	158.300	536.954	330.738	80.412	436.129	728.215	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	233.300	378.654	158.300	536.954	330.738	80.412	436.129	728.215	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	233.300	378.654	158.300	536.954	330.738	80.412	436.129	728.215	Continuing	Continuing
(The following	Resource Sum	mary rows are fo	or informational p	urposes only. Th	e corresponding	budget request	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	7,290.625	7,573.080	7,195.455	7,457.694	9,187.167	-	29,075.267	29,128.600	Continuing	Continuing

Description:

FY 2021 funding totals include \$378.654M for Base and \$158.300M for Overseas Contingency Operations (OCO).

M-SHORAD is an Air Defense weapon system consisting of multiple ground-to-air missile launchers, sensors and a gun on a Stryker A1 combat vehicle. M-SHORAD provides the Army improved capabilities for defense of maneuver formations and other tactical echelons from low altitude air attack and surveillance. Adaptive threats have developed a suite of airborne threat capabilities, supported by an integrated mix of surface-to-air and surface-to-surface shooters that threaten the ability of maneuver forces to conduct operations. Specifically, maneuver formations require the improved M-SHORAD air defense identification and defeat capabilities to counter Fixed Wing (FW), Rotary Wing (RW), Unmanned Aircraft Systems (UAS) and Rocket, Artillery and Mortar (RAM) threats.

The M-SHORAD capability will be provided through a multi-phase approach with a rapidly fielded Initial M-SHORAD system (supported by an Army Approved Directed Requirement) and an enduring M-SHORAD (supported by a Joint Requirements Oversight Council approved Capability Development Document (CDD) that will field the full capability. First, the Army will field the Initial M-SHORAD solution based on a FY 2018 Directed Requirement, which was informed by the FY 2017 M-SHORAD Demonstration. This system will provide the capability to identify, track, and neutralize or destroy low-altitude air threats to include FW, RW, and Group 3 UAS while keeping pace and surviving with the maneuver Brigades. The Initial M-SHORAD will be fielded to four M-SHORAD battalions. In addition, the Rapid Capabilities and Critical Technologies Office (RCCTO) will transition the Directed Energy M-SHORAD (DE M-SHORAD) to the M-SHORAD Product Office in 1QFY23. DE M-SHORAD will provide the long term capability to counter a broader range of FW. RW. UAS and RAM threats.

				FY 2021	FY 2021	FY 2021				
Secondar	y Distribution	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	32	50	22	72	36	-	15	25
	Total Obligation Authority	-	233.300	378.654	158.300	536.954	330.738	80.412	436.129	728.215
Total:	Quantity	-	32	50	22	72	36	-	15	25
Secondary Distribution	Total Obligation Authority	-	233.300	378.654	158.300	536.954	330.738	80.412	436.129	728.215

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air

8082C14300 / M-SHORAD - Procurement

Missile System

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

Program Elements for Code B Items: N/A

Other Related Program Elements: 0604117A

Line Item MDAP/MAIS Code: N/A

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C14301 / Maneuver - Short Range Air Defense (M-SHORAD)	P-5a, P-21	Α		- / -	- / -	32 / 233.300	50 / 378.654	22 / 158.300	72 / 536.954
P-40	Total Gross/Weapon System Cost				- 1 -	- 1 -	32 / 233.300	50 / 378.654	22 / 158.300	72 / 536.954

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

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

Justification:

FY 2021 Base procurement funding in the amount of \$378.654 million and OCO procurement funding of \$158.300M supports the production and delivery of 72 Initial M-SHORAD systems and Initial Spares

The 72 total systems provide Initial M-SHORAD systems for the second and third M-SHORAD equipped Battalions. These quantities are required in order to meet the Full Operational Capability requirement specified in the Directed Requirement.

This program is an Air Missile and Defense (AMD) Cross Functional Team (CFT) priority and is part of the Army Integrated Air and Missile Defense (IAMD) architecture, M-SHORAD C14301.

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Date: February 2020 Exhibit P-5, Cost Analysis: PB 2021 Army Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: 2032A / 02 / 10 8082C14300 / M-SHORAD - Procurement C14301 / Maneuver - Short Range Air Defense (M-SHORAD)

MDAD/MAIC Codes

ID Code (A=Service Ready, B=Not Service Ready): A		IVIL	DAP/MAIS Code:			
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	32	50	22	72
Gross/Weapon System Cost (\$ in Millions)	-	-	233.300	378.654	158.300	536.954
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	233.300	378.654	158.300	536.954
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	233.300	378.654	158.300	536.954
(The following Resource Summary rows are for information	onal purposes only. The cor	responding budget request	s are documented elsewher	e.)	,	
Initial Spares (\$ in Millions)	-	-	-	-	-	=
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	7,290.625	7,573.080	7,195.455	7,457.694

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

Army

Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
-			-	-												
-			-	_	1											
-			-	_	I I											
	-	-			6,909.750	32	221.112	7,117.020	50	355.851	7,117.045	22	156.575	7,117.028	72	512.4
			-	-	-	-	221.112	-	-	355.851	-	-	156.575	-	-	512.4
		,						•								
-		-	-	-	-	-	4.264	-	-	4.067	-	-	-	-	-	4.0
-	-	-	-	-	-	-	4.264	-	-	4.067	-	-	-	-	-	4.0
-	-	-	-	-	-	-	225.376	-	-	359.918	-	-	156.575	-	-	516.4
-	-	-	-	-	-	-	1.162	-	-	2.400	-	-	-	-	-	2.4
-	-	-	-	-	-	-	1.162	-	-	2.400	-	-	-	-	-	2.4
-	-	-	-	-	-	-	1.162	-	-	2.400	-	-	-	-	-	2.4
-	-	-	-	-	-	-	1.024	-	-	3.064	-	-	-	-	-	3.0
-	-	-	-	-	-	-	1.024	-	-	3.064	-	-	-	-	-	3.0
-	-	-	-	-	-	-	1.024	-	-	3.064	-	-	-	-	-	3.0
								1.162 1.162 1.162 1.024								

LI 8082C14300 - M-SHORAD - Procurement

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Exhibit P-5, Cost Analysis: PB 2021 Army

P-1 Line Item Number / Title:

Date: February 2020 Item Number / Title [DODIC]:

2032A / 02 / 10

8082C14300 / M-SHORAD - Procurement

C14301 / Maneuver - Short Range Air

Defense (M-SHORAD)

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

MDAP/MAIS Code:

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

Appropriation / Budget Activity / Budget Sub Activity:

	Р	rior Years	3		FY 2019			FY 2020		F۱	7 2021 Ba	se	F۱	/ 2021 OC	0	FY	/ 2021 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Acceptance Test	-	-	-	-	-	-	-	-	1.375	-	-	2.750	-	-	-	-	-	2.750
Subtotal: Support - Acceptance Testing Cost	-	-	-	-	-	-	-	-	1.375	-	-	2.750	-	-	-	-	-	2.750
Support - Initial Spares and R	Repair Parts Cos	t																
Initial Spares and Repair Parts	-	-	-	-	-	-	-	-	2.177	-	-	5.434	-		1.725	-		7.159
Subtotal: Support - Initial Spares and Repair Parts Cost	-	-	-	-	-	-	-	-	2.177	-	-	5.434	-	-	1.725	-	-	7.15
Support - Logistics Cost												,	·	,				
Integrated Logistics Support	-	-	-	-	-	-	-	-	-	-	-	1.264	-	-	-	-	-	1.264
Subtotal: Support - Logistics Cost	-	-	-	-	-	-	-	-	-	-	-	1.264	-	-	-	-	-	1.264
Support - Program Managem	ent Cost											,	·	,				
Government Management	-	-	-	-	-	-	-	-	2.186	-	-	3.824	-	-	-	-	-	3.824
Subtotal: Support - Program Management Cost	-	-	-	-	-	-	-	-	2.186	-	-	3.824	-	-	-	-	-	3.82
Gross/Weapon System Cost	-	-	-	-	-	-	7,290.625	32	233.300	7,573.080	50	378.654	7,195.455	22	158.300	7,457.694	72	536.954

Remarks:

FY 2021 Procurement funding procures 72 systems @ unit cost of \$ \$7,117,028

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	32	50	22	72
	Total Obligation Authority	-	233.300	378.654	158.300	536.954
Total:	Quantity	-	32	50	22	72
Secondary Distribution	Total Obligation Authority	-	233.300	378.654	158.300	536.954

(†) indicates the presence of a P-5a

LI 8082C14300 - M-SHORAD - Procurement

Exhibit P-5a, Procurement History and Planning: PB 2021 A	ırmy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 10		Item Number / Title [DODIC]: C14301 / Maneuver - Short Range Air Defense (M-SHORAD)

Cost Elements	0 C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
Initial M-SHORAD ^(†)		2020	Initial M-SHORAD / TBD	SS / FFP	TBD	Jul 2020	Jul 2021	32	6,909.750	N		
Initial M-SHORAD ^(†)	1	2021	Initial M-SHORAD / TBD	Option / FFP	HSV	Jan 2021	Jan 2022	22	7,117.045	N		
Initial M-SHORAD ^(†)		2021	Initial M-SHORAD / TBD	Option / FFP	HSV	Jan 2021	May 2022	50	7,117.020	N		

 $^{^{(\}dagger)}$ indicates the presence of a P-21

Remarks:

FY2021 Procurement funding procures 72 Systems @ unit cost of \$7,117,028

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				ements n Each)								Fiscal Y	ear 2020											Fiscal Y	ear 2021						В
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	1	2020	ARMY	32	0	32										Α -	-	-	-	-	-	-	-	-	-	-	-	4	4	4	20
	1	2021	ARMY	50	0	50													,			Α -	-	-	-	-	-	-	-	-	50
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				lements in Each)								Fiscal Y	ear 2022											Fiscal Y	ear 2023						В
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1	1 2	2021	ARMY	22	0	22	-	-	-	4	6	6	6																		
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Exhibit P-21, Production Schedule: PB 2021 Army	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 10	Item Number / Title [DODIC]: C14301 / Maneuver - Short Range Air Defense (M-SHORAD)

		Produc	tion Rates (Each /	Month)				Procurement Lea	adtime (Months)			
MFF	R					lni	tial			Reo	rder	
Ref		MSR For 2021	1-8-5 For 2021	MAX For 2021	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	1 Initial M-SHORAD - TBD	2	6	9	0	3	6	9	0	3	6	9

Remarks:

FY2021 Procurement funding procures 72 Systems @ unit cost of \$ \$7,117,028

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 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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[&]quot;A" in the Delivery Schedule indicates the Contract Award Date.

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

Program Elements for Code B Items: N/A

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air

8260C53101 / MSE Missile

Missile System

Other Related Program Elements: 0604865A, 0603869A,

0604869A, 0605456A

Line Item MDAP/MAIS Code: 492

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	4,092.880	1,131.276	702.437	603.188	176.585	779.773	765.887	1,008.835	908.799	804.295	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	4,092.880	1,131.276	702.437	603.188	176.585	779.773	765.887	1,008.835	908.799	804.295	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	4,092.880	1,131.276	702.437	603.188	176.585	779.773	765.887	1,008.835	908.799	804.295	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	budget requests	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	4,443.952	4,713.650	4,778.483	4,944.164	3,838.804	4,641.506	6,329.645	7,154.858	7,971.921	9,244.770	Continuing	Continuing

Description:

Note: Beginning FY21, funds from System Integration and Test Procurement / C50016 will be realigned into MSE Missile / C53101.

The MSE Missile line supports the procurement of missiles, Field Surveillance Program (FSP), PAC-3 Missile Support Center (P3MSC), Integrated Logistics Support (ILS), US Unique Engineering Services (ES), and System Engineering Program Management (SEPM) activities.

The PATRIOT Advanced Capability 3 (PAC-3) Missile Segment Enhancement (MSE) is a high velocity hit-to-kill, surface-to-air missile capable of intercepting tactical ballistic missiles, air breathing threats, cruise missiles, and unmanned aerial systems. The PAC-3 MSE represents the next generation PAC-3 missile which provides expanded battlespace performance against evolving threats and has been fully integrated into the PATRIOT system for US and international partners. The PAC-3 MSE is an agile, lethal interceptor providing substantial missile capabilities when combined with critical ground system improvements. Additionally, the PAC-3 MSE enhances Insensitive Munitions (IM) through a less sensitive, increased performance lethality enhancer, the addition of armor and a thermally initiated venting system. A single canister design provides enhanced warfighter and logistics flexibility, and facilitates improved IM performance for greater warfighter safety.

The PATRIOT Advanced Capability-3 (PAC-3) Missile Field Surveillance Program (FSP) is required to ensure that the reliability, performance, and safety of fielded missiles in the PATRIOT family remain within the classified system specification for the life of the system. Initial FSP tasks confirm the quality of design, materials, tooling and test equipment procedures, and processes used in the manufacture of the PATRIOT Family of Missiles (PFoM). After missile deployment, results from surveillance firings, inspections, functional tests, Storage and Aging Programs, and depot level missile maintenance processing provide the data required for the assessment of reliability, performance, and safety of the missile stockpile. The PFoM are fielded under the Certified Round Concept. Under this approved concept, the missiles are capable of being placed in extended storage as part of war reserve stocks or deployed in operational units for variable periods and then fired without intervening tests or checkouts. In accordance with the Certified Round Concept, the reliability/performance of the missile is certified by the Lower Tier Project Office (LTPO) to be at an acceptable level for a stated period of time or corrective action is taken.

The certification of reliability is made possible through the use of the PAC-3 Missile Support Center (P3MSC) contract to use technical support and knowledge of the testing of discrete lots of component parts, subassemblies and assemblies which the prime contractor Lockheed Martin Missiles and Fire Control (LMMFC) provides as the only source of technical knowledge, expertise, and facilities to perform FSP activities and process PFoM.

 LI 8260C53101 - MSE Missile
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 Army
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 P-1 Line #3

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air

8260C53101 / MSE Missile

Missile System

Program Elements for Code B Items: N/A

Other Related Program Elements: 0604865A, 0603869A,

Date: February 2020

0604869A, 0605456A

P-1 Line #3

Line Item MDAP/MAIS Code: 492

LI 8260C53101 - MSE Missile

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

Systems Engineering and Project Management support encompasses the overall planning, management, and control of the PATRIOT Weapon System. Includes all Engineering and Program Management disciplines and activities.

Secondar	ry Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1,131.276	702.437	603.188	176.585	779.773	765.887	1,008.835	908.799	804.295
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	1,131.276	702.437	603.188	176.585	779.773	765.887	1,008.835	908.799	804.295

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Army Page 2 of 12

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

Appropriation / Budget Activity / Budget Sub Activity:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air Missile System

P-1 Line Item Number / Title:
8260C53101 / MSE Missile

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

Program Elements for Code B Items: N/A

Other Related Program Elements: 0604865A, 0603869A,

0604869A, 0605456A

Line Item MDAP/MAIS Code: 492

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C53101 / MSE Missile	P-5a, P-21			- / 4,092.880	- / 1,131.276	- /702.437	- /603.188	- / 176.585	- /779.773
P-40	Total Gross/Weapon System Cost	,			- / 4,092.880	- / 1,131.276	- / 702.437	- / 603.188	- / 176.585	- /779.773

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

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

Justification:

FY 2021 procurement dollars in the amount of \$779.773 million support the production of 168 Missile Segment Enhancement (MSE) missiles, 32 Launcher Mod Kits (LMK), Missile Round Trainers (MRT), Empty Round Trainers (ERT), Field Surveillance Program (FSP), supporting equipment, ancillary missile items, PAC-3 Missile Support Center (P3MSC), Obsolescence, Organic NRC, System Engineering/Program Management (SE/PM), and Government/Software Engineering.

In FY 2021, \$0.978 million in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments

Army Acquisition Objective (AAO) is 3376.

Program Office core employee labor costs moved from Procurement to Operations and Maintenance, Army (OMA) as part of an OSD auditability directive starting in FY19. Government/Software Engineering (USG support) includes government administration costs.

*Unit prices reflect an assessed yearly Foreign Military Sales (FMS) procurement of PAC-3 missile variants. In the event FMS procurements do not occur at this level, the budgeted missile unit price may not be achievable.

**Quantities will be procured at an optimized rate utilizing price advantage created through contract negotiation, Firm Fixed Price Incentive Fee (FPIF) contract ceiling liability reduction through price determination, other service procurement, and/or foreign military sales (FMS) to increase the Army procurement of MSE Missiles.

***Anticipate transitioning from Fixed Price Incentive Fee (FPIF) to Firm Fixed Price (FFP) in FY21, assuming analysis of FY13-19 cost data demonstrates stable program costs.

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LI 8260C53101 - MSE Missile Army

Date: February 2020 Exhibit P-5, Cost Analysis: PB 2021 Army Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: 2032A / 02 / 10 8260C53101 / MSE Missile C53101 / MSE Missile

ID Code (A=Service Ready, B=Not Service Ready):		M	DAP/MAIS Code:			
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	4,092.880	1,131.276	702.437	603.188	176.585	779.773
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	4,092.880	1,131.276	702.437	603.188	176.585	779.773
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	4,092.880	1,131.276	702.437	603.188	176.585	779.773
(The following Resource Summary rows are t	for informational purposes only. The cor	responding budget request	s are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	4,443,952	4.713.650	4.778.483	4.944.164	3.838.804	4.641.506

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

	P	rior Years	3		FY 2019			FY 2020		FY	2021 Bas	e	FY	2021 OC	0	FY	2021 Tota	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)									
Flyaway Cost																		
Recurring Cost																		
Missile Hardware ^(†)	3,991.114	869	3,468.278	3,733.398	274	1,022.951	4,117.265	147	605.238	3,852.656	122	470.024	3,838.804	46	176.585	3,848.863	168	646.60
Field Surveillance	-	-	41.863	-	-	6.096	-	-	5.949	-	-	18.732	-	-	-	-	-	18.73
PAC-3 Missile Support Center (P3MSC)	-	-	22.364	-	-	3.900	-	-	3.899	-	-	10.501	-	-	-	-	-	10.50
Obsolescence	-	-	84.725	-	-	22.049	-	-	8.597	-	-	22.032	-	-	-	-	-	22.03
Launcher Mod Kit (LMK)	-	-	63.088	247.500	40	9.900	247.585	41	10.151	253.094	32	8.099	-	-	-	253.094	32	8.09
Heater Kits	-	-	2.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Msl Round Trainer / Empty Round Trainer	-	-	122.438	-	-	43.700	-	-	45.695	-	-	49.701	-	-	-	-	-	49.70
Initial Production Facilitization	-	-	88.313	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government/Software Engineering	-	-	31.540	-	-	9.600	-	-	9.701	-	-	9.699	-	-	-	-	-	9.6
Sys Engrg/Proj Mgmt (SE/PM) Contractor	-	-	167.771	-	-	13.080	-	-	13.207	-	-	13.401	-	-	-	-	-	13.4
Subtotal: Recurring Cost	-	-	4,092.880	-	-	1,131.276	-	-	702.437	-	-	602.189	-	-	176.585	-	-	778.7
Non Recurring Cost														,			,	
Organic	-	-	-	-	-	-	-	-	-	-	-	0.999	-	-	-	-	-	0.99
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	0.999	-	-	-	-	-	0.9
Subtotal: Flyaway Cost	-	-	4,092.880	-	-	1,131.276	-	-	702.437	-	-	603.188	-	-	176.585	-	-	779.7

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LI 8260C53101 - MSE Missile Army Page 4 of 12

Exhibit P-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:

2032A / 02 / 10

P-1 Line Item Number / Title:

8260C53101 / MSE Missile

Item Number / Title [DODIC]:

C53101 / MSE Missile

Date: February 2020

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

MDAP/MAIS Code:

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

	F	Prior Years	S		FY 2019			FY 2020		FY	/ 2021 Bas	se	F	Y 2021 OC	:0	F	Y 2021 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	4,443.952	-	4,092.880	4,713.650	-	1,131.276	4,778.483	-	702.437	4,944.164	-	603.188	3,838.804	-	176.585	4,641.506	-	779.773

Remarks:

Beginning FY21, funds from System Integration and Test Procurement / C50016 will be realigned into MSE Missile / C53101.

Seconda	ry Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	1,131.276	702.437	603.188	176.585	779.773
Total:	Quantity	-	-	=	-	=
Secondary Distribution	Total Obligation Authority	1,131.276	702.437	603.188	176.585	779.773

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 A	ırmy	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
2032A / 02 / 10	8260C53101 / MSE Missile	C53101 / MSE Missile

	0			Method/Type or		Award	Date of First	Qty	Unit Cost	Specs Avail	Date Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$ K)	Now?	Available	Date
Missile Hardware ^(†)		2015	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Jul 2015	Jan 2017	108	4,425.000	Y		May 2014
Missile Hardware ^(†)		2016	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Dec 2015	Aug 2018	112	3,940.180	Y		May 2014
Missile Hardware ^(†)		2017	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Dec 2016	Oct 2019	170	4,266.530	Y		Dec 2015
Missile Hardware ^(†)		2018	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Dec 2017	Jul 2020	387	3,793.380	Υ		Dec 2015
Missile Hardware ^(†)		2019	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Dec 2018	Jun 2021	274	3,733.398	Υ		Dec 2015
Missile Hardware ^(†)		2020	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Dec 2019	Jun 2022	147	4,117.265	Υ		Jun 2017
Missile Hardware ^(†)		2021	LMMFC / Dallas, TX	SS / FFP	AMCOM, RSA, AL	Dec 2020	Jun 2023	168	3,848.863	Y		Jun 2017

^(†) indicates the presence of a P-21

Remarks:

Anticipate transitioning from FPIF to FFP in FY21, assuming analysis of FY13-19 cost data demonstrates stable program costs. Exhibit P-21, Production Schedule is subject to change.

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Army

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Ex	hibit	P-21, Pr	oducti	on Sc	hedul	e: PB	2021	Arm	y														Date	: Feb	ruary	2020)			
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1 2017 ARMY 170 170 0 1 2018 ARMY 387 387 0 1 2019 ARMY 274 274 0 1 2020 ARMY 147 54 93 15 12 15 12 15 12 12 1 2021 ARMY 168 0 168 14 14 14 14 14 14 14 14 14 14 14 14 14	1 2015	15 ARMY	108	108	0																								
1 2018 ARMY 387 387 0 1 2019 ARMY 274 274 0 1 2020 ARMY 147 54 93 15 12 15 12 15 12 12 1 2021 ARMY 168 0 168 14 14 14 14 14 14 14 14 14 14 14 14 14	1 2016	16 ARMY	112	112	0																								
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1 2020 ARMY 147 54 93 15 12 15 12 15 12 15 12 15 12 15 12 15 12 15 12																													_
1 2021 ARMY 168 0 168 14 14 14 14 14 14 14 14 14 14 14 14 14						45			10	4.5		10	1																-
														14	1/	1.1	1.1	1.1	14	11	14	1.1	14	1.1	1.1				-
	1 202	ZI AKWII	100	- 0	100									-												.1	J	Δ	s
C O E A E A P A U U U E C O E A P A U U U T V C N B R R Y N L G P T V C N B R R Y N L G						С	0	E	A	E	Α	P	Α	U	Ü	U	E	С	0	E	A	E	Α	P	Α	Ü	U	U	E P

LI 8260C53101 - MSE Missile Army UNCLASSIFIED
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Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 10	P-1 Line Item Number / Title: 8260C53101 / MSE Missile	Item Number / Title [DODIC]: C53101 / MSE Missile

		Produ	ction Rates (Each	/ Year)			•	Procurement Le	adtime (Months)			
MFR						lni	tial			Reo	rder	
Ref	Manufacturer	MSR For 2021 1-8-5 For 2021 MAX For 2021			ALT	ALT	Manufacturing	Total	ALT	ALT	Manufacturing	Total
#	Name - Location	W5R F0r 2021	1-8-5 FOR 2021	WAX FOR 2021	Prior to Oct 1	After Oct 1	PLT	After Oct 1	Prior to Oct 1	After Oct 1	PLT	After Oct 1
1	LMMFC - Dallas, TX 72 300				0	6	18	24	0	6	18	24

Remarks:

The PAC-3 MSE production line includes deliveries for both US and Foreign Military Sales (FMS). Gaps between scheduled US missile deliveries are attributed to FMS. FMS and US combine to provide significant production line continuity and buying power efficiencies. Production Rates reflect annual production capacity.

LI 8260C53101 - MSE Missile

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 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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[&]quot;A" in the Delivery Schedule indicates the Contract Award Date.

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air

8540C29600 / PRECISION STRIKE MISSILE (PRSM)

Missile System

Program Elements for Code B Items: N/A

Other Related Program Elements: 0607134A

Line Item MDAP/MAIS Code: N/A

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	30	-	30	110	178	350	350	-	1,018
Gross/Weapon System Cost (\$ in Millions)	-	-	-	49.941	-	49.941	168.416	210.058	335.088	309.906	-	1,073.409
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	-	49.941	-	49.941	168.416	210.058	335.088	309.906	-	1,073.409
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	49.941	-	49.941	168.416	210.058	335.088	309.906	-	1,073.409
(The following	Resource Sum	mary rows are fo	or informational p	ourposes only. Th	ne corresponding	budget request	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	1,664.700	-	1,664.700	1,531.055	1,180.101	957.394	885.446	-	1,054.429

Description:

Precision Strike Missile (PrSM), formerly known as Long Range Precision Fires (LRPF), is the Army's next generation surface-to-surface missile that replaces and improves upon Army Tactical Missile System (ATACMS) capabilities. PrSM requirements include: max range of greater than 400km, specified lethality against the designated target set, a Launch Pod Missile Container (LPMC) that holds two missiles, survivability in a threat environment, and compatibility with the existing launcher platforms (M270A2 Multiple Launch Rocket System (MLRS) and M142 High Mobility Artillery Rocket System (HIMARS)). PrSM will meet cluster and insensitive munition requirements and is being designed with an open system architecture that provides the capability for future growth to counter new and emerging threats. The mission of the PrSM System is to attack/neutralize/suppress/destroy targets using missile delivered indirect precision fires. PrSM will provide Joint Force Commanders with a 24/7, all- weather capability to attack critical and time sensitive area and point targets including threat air defense, missile launchers, command and control centers, assembly/ staging areas and high payoff targets at all depths of the multi-domain battlefield. PrSM will counter the enemy's ability to conduct combat maneuver and air defense operations.

The current Army Acquisition Objective is 2,422 PrSM missiles.

Secondar	ry Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	30	=	30	110	178	350	350
	Total Obligation Authority	-	-	49.941	-	49.941	168.416	210.058	335.088	309.906
Total:	Quantity	-	-	30	-	30	110	178	350	350
Secondary Distribution	Total Obligation Authority	-	-	49.941	-	49.941	168.416	210.058	335.088	309.906

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air

8540C29600 / PRECISION STRIKE MISSILE (PRSM)

Missile System

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

Program Elements for Code B Items: N/A

Other Related Program Elements: 0607134A

Line Item MDAP/MAIS Code: N/A

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C29850 / PrSM Baseline	P-5a, P-21			- / -	- / -	- / -	30 / 49.941	- / -	30 / 49.941
P-40	Total Gross/Weapon System Cost				- 1 -	- 1 -	- 1 -	30 / 49.941	- 1 -	30 / 49.941

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

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

Justification:

FY 2021 Base procurement dollars in the amount of \$49.941M supports the production of 30 Urgent Material Release (UMR) PrSM missiles with Launch Pod Missile Containers (LPMC).

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

This program supports the Long Range Precision Fires Cross Functional Team (CFT).

PRECISION STRIKE MISSILE (PRSM) is a new start in FY2021.

8540C29600 / PRECISION STRIKE MISSILE (PRSM)

P-1 Line Item Number / Title:

Date: February 2020

C29850 / PrSM Baseline

Item Number / Title [DODIC]:

Exhibit P-5, Cost Analysis: PB 2021 Army

2032A / 02 / 10

Appropriation / Budget Activity / Budget Sub Activity:

ID Code (A=Service Rea	dy, B=Not Servi	ce Ready):							MI	DAP/MAIS	Code:							
	Resource	Summ	ary			Prior Ye	ars	FY 20	19	FY	2020	FY	2021 Bas	e F	Y 2021 (ОСО	FY 2021	Total
Procurement Quantity (Un	nits in Each)						-		-			-		30		-		30
Gross/Weapon System C	ost (\$ in Million	s)					-		-			-	49	.941		-		49.941
Less PY Advance Procure	ement (\$ in Mill	lions)					-		-			-		-		-		-
Net Procurement (P-1) (\$	in Millions)						-		-			-	49	.941		-		49.941
Plus CY Advance Procure	ement (\$ in Mill	lions)					-		-			-		-		-		-
Total Obligation Authori	ty (\$ in Millions	:)					-		-			-	49	.941		-		49.941
(7	he following F	Resource Si	ummary rov	vs are for info	rmational p	urposes onl	y. The corres	ponding bud	get request	s are docum	ented elsev	vhere.)						
Initial Spares (\$ in Millions)							-		-			-		-		-		-
Gross/Weapon System U	nit Cost (\$ in T	Thousands)					-		-			-	1,664	.700		-		1,664.700
Note: Subtotals or Totals	in this Exhibit	P-5 may no	ot be exact of	or sum exact	v due to rou	undina.												
	_	rior Years			FY 2019			FY 2020		FY	′ 2021 Ba	se	FY	2021 O	0	F	Y 2021 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost			, , ,	,,,	, ,	,,,,		, ,	,, ,	, , ,		, ,	, ,		,,,,	, ,	, ,	
Recurring Cost																		
Recurring Production ^(†)	-	-	-	-	-	-	-	-	-	1,664.700	30	49.941	-	-	-	1,664.700	30	49.941
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	49.941	-	-	-	-	-	49.941
Subtotal: Flyaway Cost	-	-	-	-	-	-	-	-	-	-	-	49.941	-	-	-	-	-	49.941
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	1,664.700	30	49.941	-	-	-	1,664.700	30	49.941
	Seco	ondary Di	stribution				FY 2	2019		FY 2020		FY 2 Ba:			FY 2021 OCO		FY 202	
Army		Qua							-		-		30			-		30
		Tota	al Obligation A	Authority					-		-		49.941			-		49.941
Total:		Qua	intity						-		-		30			-		30
Secondary Distribution		Tota	al Obligation	Authority				•	-		-		49.941			-		49.941
(†) indicates the prese	ence of a P-{	5a																
LI 8540C29600 - F Army	PRECISIO	N STRI	KE MIS	SILE (PR	SM)		UN	NCLAS Page 3	_)		P-1 Li	ne #4					25

Exhibit P-5a, Procurement History and Planning: PB 2021	Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 10	P-1 Line Item Number / Title: 8540C29600 / PRECISION STRIKE M	IISSILE (PRSM)	Item Number / Title [DODIC]: C29850 / PrSM Baseline
	Mothod/Turno	Dete	Cuasa Data

Cost Elements	0 C 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
Recurring Production ^(†)		2021	TBD / TBD	C / FFP	Aviation and Missile Command	Jul 2021	Oct 2022	30	1,664.700	N		Jul 2020

^(†) indicates the presence of a P-21

Exhibit F	P-21, Pro	oduct	ion Sc	hedu	le: Pl	B 202	1 Arm	ıy														Date	: Feb	oruary	2020)			
Appropr 2032A / 0		Budg	et Acti	vity /	Bud	get Sı	ıb Ac	tivity	:	1	Line 10C29					RIKE	MISS	SILE ((PRSI	M)			Num 850 /			[DOI eline	DIC]:		
		lements in Each)						,		Fiscal Y	ear 2021			,				,				Fiscal Y	ear 2022			,			В
			ACCEPT									C	Calendar	Year 202	:1	· ·							Caler	ndar Year	r 2022				Ĺ
O F C R O # FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U	A U G	S E P	A N C E
Recurring Pro	duction					'														,									
1 2021	ARMY	30	0	30										Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U	A U G	S E P	

Ex	hib	it P	-21, Pro	oduct	ion Sc	hedu	le: PE	3 202	1 Arm	ıy														Date	e: Fel	oruary	/ 202	O .			
	-	-	ation / 12 / 10	Budge	et Acti	vity /	Budg	get Su	ıb Ac	tivity			Line 10C29					RIKE	MISS	SILE ((PRSI	M)				nber / PrSM		[DOI eline	OIC]:		
				lements in Each)								Fiscal Y	ear 2023											Fiscal Y	ear 2024	ı					ВА
					ACCEPT									(Calendar	Year 202	23								Cale	ndar Yea	r 2024				L
O 1	VI F R # F	ACCEPT PRIOR BAL TO 1 DUE O N D J										M A R	A P R	M A Y	J U	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	A N C E
Rec	urring	Prod	luction																												
	1 20	021	ARMY	30	0	30	2	2	2	3	3	3	3	3	3	2	2	2													
	·	'				,	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	L U	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U L	A U G	S E P	

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
		Item Number / Title [DODIC]:
2032A / 02 / 10	8540C29600 / PRECISION STRIKE MISSILE (PRSM)	C29850 / PrSM Baseline

		Produc	tion Rates (Each /	Month)				Procurement Lea	adtime (Months)			
MFF	R					Init	tial			Reo	rder	
Ref		MSR For 2021	1-8-5 For 2021	MAX For 2021	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	2	3	5	0	10	15	25	0	10	15	25

[&]quot;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 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air

8930C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-I

Missile System

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: 473

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

Line item widar/wais code. 475															
	Prior			FY 2021	FY 2021	FY 2021					То				
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total			
Procurement Quantity (Units in Each)	-	12	-	-	-	-	12	-	36	36	Continuing	Continuing			
Gross/Weapon System Cost (\$ in Millions)	41.003	166.536	40.623	106.261	-	106.261	237.803	392.134	368.447	274.566	Continuing	Continuing			
Less PY Advance Procurement (\$ in Millions)	-	-	31.286	-	-	-	-	-	-	-	Continuing	Continuing			
Net Procurement (P-1) (\$ in Millions)	41.003	166.536	9.337	106.261	-	106.261	237.803	392.134	368.447	274.566	Continuing	Continuing			
Plus CY Advance Procurement (\$ in Millions)	-	31.286	-	-	-	-	-	-	-	-	Continuing	Continuing			
Total Obligation Authority (\$ in Millions)	41.003	197.822	9.337	106.261	-	106.261	237.803	392.134	368.447	274.566	Continuing	Continuing			
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	g budget requests	are documente	ed elsewhere.)							
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-			
Gross/Weapon System Unit Cost (\$ in Thousands)	-	13,878.000	-	-	-	-	19,816.917	-	10,234.639	7,626.833	Continuing	Continuing			

Description:

The Indirect Fire Protection Capability Increment 2 (IFPC Inc 2) will provide a ground-based weapon system designed to acquire, track, engage, and defeat Cruise Missiles (CM), Unmanned Aircraft Systems (UAS), and Rocket, Artillery, and Mortar (RAM) threats. The IFPC Inc 2 system consists of a launcher and interceptor integrated with the Army Integrated Air and Missile Defense (AIAMD) open systems architecture, IAMD Battle Command System (IBCS), and the Sentinel sensor to support the Threshold CM and UAS defeat mission. The Objective counter-RAM mission employs both alternative kinetic and non-kinetic defeat solutions.

In Fiscal Year (FY) 2018, the Army evaluated alternative strategies to address an Army interim CM defense (CMD) capability at critical strategic fixed site locations while continuing the development of an IFPC capability. On 5 December 2019, the Army signed a contract with the Israeli Missile Defense Organization (IMDO) for two Interim CMD (Iron Dome) Batteries. For each of the interim capability's Iron Dome Batteries, the Army intends to employ a configuration that matches the Israeli Firing Unit.

Concurrently with the Interim CMD assessment, the Army will develop a launcher and interceptor solution that is integrated with the IBCS and the Sentinel sensor. The Army's decision for the IFPC Inc 2 capability will decide between an U.S. industry-based CMD launcher/interceptor and a componentized Iron Dome launcher/TAMIR-class interceptor. The Army will utilize a tailored acquisition approach to evaluate new capability and provide residual operational capability in FY 2023 and then transition into procurement and field by FY 2025.

FY 2021 Base dollars in the amount of \$106.387 million are designated for procurement of the IFPC Inc 2 system.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	12	-	-	-	-	12	-	36	36
	Total Obligation Authority	197.822	9.337	106.261	-	106.261	237.803	392.134	368.447	274.566
Total:	Quantity	12	-	-	-	-	12	-	36	36
Secondary Distribution Total	Total Obligation Authority	197.822	9.337	106.261	-	106.261	237.803	392.134	368.447	274.566

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air

8930C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-I

Missile System

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: 473

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

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C62001 / IFPC Inc 2-I Block 1 Missile 1				- /41.003	- / 166.536	- / -	- / -	- / -	- / -
P-5	C62002 / IFPC INC 2-I BLOCK 1 SYSTEM				- / -	12 / 0.000	- /40.623	- / 106.261	- / -	- / 106.261
P-40	Total Gross/Weapon System Cost				- / 41.003	12 / 166.536	- / 40.623	- / 106.261	- 1 -	- / 106.261

^{*}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:

As reported in Oct 2018, the Army will rapidly field an interim capability with the Israeli Iron Dome. Concurrently, the Army will integrate an IFPC capability of a launcher and interceptor leveraging the Army Integrated Air and Missile Defense (AIAMD) open systems architecture and IAMD Battle Command System (IBCS) as the Fire Control component, and US sensor (Sentinel).

The Army approved a Directed Requirement to initiate procurement of the Israeli Iron Dome Missile System for an Interim CMD capability on 9 Feb 2019. Congress approved Above Threshold Reprogramming (ATR) actions to align IFPC FY 2018 and 2019 Procurement to fund the Interim CMD (Iron Dome) purchase and to repurpose the FY 2019 RDTE funds in May 2019.

To support the Interim CMD requirement, the Army has signed a 10 U.S. code, paragraph 2373 procurement contract to procure two interim Iron Dome batteries for technical evaluation, assessment of operational utility, and safety evaluation. The Army is analyzing the availability of the IFPC Inc 2 materiel solution for a residual operational capability in the FY 2023/2024 timeframe mitigating the requirement for additional Interim CMD (Iron Dome) procurements. If continued assessment is determined to be necessary, the Army will procure two additional Interim CMD firing units through a modification to the 2373 procurement contract in FY 2021/2022 to meet the FY 2019 NDAA intent of a second set of Interim CMD units by FY 2023.

To inform the IFPC solution, the Army verified technology readiness of interceptor alternatives in FY 2018 and received proposals for technology readiness assessments on launcher alternatives in FY 2019. These actions will inform the IFPC material solution decision. The Army will continue launcher and interceptor integration and testing to support the IFPC Inc 2 Production Decision planned for 1QFY2024 and unit fielding in FY 2025. A limited procurement is anticipated starting in FY 2023 to support the FY 2025 fielding.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-81), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

This program supports the Air and Missile Defense Cross Functional Team (CFT).

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Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020 Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: C62001 / IFPC Inc 2-I Block 1 Missile 1 2032A / 02 / 10 8930C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-I MDAP/MAIS Code: ID Code (A=Service Ready, B=Not Service Ready): **Resource Summary Prior Years FY 2019 FY 2021 Base** FY 2021 Total **FY 2020** FY 2021 OCO Procurement Quantity (Units in Each) Gross/Weapon System Cost (\$ in Millions) 41.003 166.536 --Less PY Advance Procurement (\$ in Millions) Net Procurement (P-1) (\$ in Millions) 41.003 166.536 -_ Plus CY Advance Procurement (\$ in Millions) Total Obligation Authority (\$ in Millions) 41.003 166.536 (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) Initial Spares (\$ in Millions)

2,191.263

244.065

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

Gross/Weapon System Unit Cost (\$ in Thousands)

	P	rior Years	;		FY 2019			FY 2020		FY	' 2021 Bas	se	F	/ 2021 OC	0	FY	/ 2021 Tot	tal
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost	'	'		'	'					'					'	'		
Recurring Cost																		-
TAMIR Missiles and Associated Magazines	163.315	165	26.947	163.040	75	12.228	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: Recurring Cost	-	-	26.947	-	-	12.228	-	-	-	-	-	-	-	-	-	-	-	
Non Recurring Cost									,	•								-
Iron Dome Missile firing Unit with Prime Mover	-	-	-	1,900.083	12	22.801	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: Non Recurring Cost	-	-	-	-	-	22.801	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: Flyaway Cost	-	-	26.947	-	-	35.029	-	-	-	-	-	-	-	-	-	-	-	
Hardware Cost																		
Non Recurring Cost																		-
Iron Dome ELM-2084 Multi-Mission Radar	-	-	-	25,374.500	2	50.749	-	-	-	-	-	-	-	-	-	-	-	
Iron Dome Battle Manangement Center	-	-	-	3,240.000	2	6.480	-	-	-	-	-	-	-	-	-	-	-	
Iron Dome Communications Shelter with Prime Mover	-	-	-	3,553.500	2	7.107	-	-	-	-	-	-	-	-	-	-	-	
Iron Dome Radar Control Shelter &	-	-	-	5,582.500	2	11.165	-	-	-	-	-	-	-	-	-	-	-	

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Exhibit P-5, Cost	Analysis	s: PB 20	21 Army	,										Date: Fe	bruary 2	2020		
Appropriation / B 2032A / 02 / 10	Budget A	ctivity /	Budget	Sub Acti	ivity:	I	C61001	Numbe / INDIRE		: E PROTE	CTION	CAPABI				Fitle [DOI nc 2-I Blo		sile 1
ID Code (A=Service Read	dy, B=Not Servi	ice Ready):							M	DAP/MAIS	Code:							
Note: Subtotals or Totals i	in this Exhibit	P-5 may no	ot be exact o	r sum exactl	y due to rou	nding.			l .									
	F	Prior Years	s		FY 2019			FY 2020		FY	2021 Bas	se	F	Y 2021 OC	0	F	/ 2021 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Generator with Prime Mover																		
Iron Dome Ammunition & Maintenance Vehicles	-	-	-	3,420.500	2	6.841	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	82.342	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	-	-	-	-	-	82.342	-	-	-	-	-	-	-	-	-	-	-	-
Package Fielding Cost																		
Non Recurring Cost																		
Initial Repair Parts/ Support Equipment	-	-	-	-	-	23.225	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	23.225	-	-	-	-	-	-	-	-	-	-		-
Subtotal: Package Fielding Cost	-	-	-	-	-	23.225	-	-	-	-	-	-	-	-	-	-	-	-
Support - Congressional Adju	stments Cost				,		,											
Congressional Rescission	-	-	5.182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Congressional Adjustments Cost	-	-	5.182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Government Furnis	hed Materials (Cost																
Government Furnished Materials	-	-	8.874	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Government Furnished Materials Cost	-	-	8.874	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Program Managem	ent Cost																	
Contractor Management	-	-	-	-	-	25.940	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	-	-	-	-	-	25.940	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	244.065	-	41.003	2,191.263	-	166.536	-	-	-	-	-	-	-	-	-	-	-	-
	Sec	ondary Di	istribution				FY	2019		FY 2020		FY 2 Bas		ı	FY 2021 OCO		FY 202 Total	
Army		Qua	antity						-		-		-			-		-
																	-	

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 10	P-1 Line Item Number / Title: 8930C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-I	Item Number / Title [DODIC]: C62001 / IFPC Inc 2-I Block 1 Missile 1
ID Code (4 a c a p + p + p + p + p + p + p + p + p + p	MDAD/MAIS Code:	·

ID Code (A=Service Ready, B=Not Service	Ready):		MDAP/MAIS Code):		
Seco	dary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
	Total Obligation Authority	166.536	-	-	-	-
al:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	166.536	-	-	-	-

Date: February 2020 Exhibit P-5, Cost Analysis: PB 2021 Army Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: 2032A / 02 / 10 8930C61001 / INDIRECT FIRE PROTECTION CAPABILITY C62002 / IFPC INC 2-I BLOCK 1 INC 2-I SYSTEM

ID Code (A=Service Ready, B=Not Service Ready):		М	DAP/MAIS Code:			
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	12	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	0.000	40.623	106.261	-	106.261
Less PY Advance Procurement (\$ in Millions)	-	-	31.286	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	0.000	9.337	106.261	-	106.261
Plus CY Advance Procurement (\$ in Millions)	-	31.286	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	31.286	9.337	106.261	-	106.261
(The following Resource Summary rows are for information	onal purposes only. The cor	responding budget request	s are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

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

	P	rior Years	•		FY 2019			FY 2020		FY	/ 2021 Bas	se	F۱	/ 2021 OC	0	FY	2021 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Non Recurring Cost																		
TAMIR Missiles and Associated Magazines	-	-	-	-	-	-	-	-	-	169.825	240	40.758	-	-	-	169.825	240	40.7
Iron Dome Launcher	-	-	-	-	-	-	2,607.167	12	31.286	-	-	-	-	-	-	-	-	
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	31.286	-	-	40.758	-	-	-	-		40.7
Subtotal: Hardware Cost	-	-	-	-	-	-	-	-	31.286	-	-	40.758	-	-	-	-	-	40.7
Support - Fielding Cost	*							,		*			,		,			
Fielding	-	-	-	-	-	-	396.500	12	4.758	-	-	-	-	-	-	-	-	-
Subtotal: Support - Fielding Cost	-	-	-	-	-	-	-	-	4.758	-	-	_	-	-	-	-		
Support - Government Furnish	ned Materials C	ost																
Government Furnished Materials	-	-	-	-	-	-	-	-	-	-	-	40.492	-	-	-	-	-	40.49
Subtotal: Support - Government Furnished Materials Cost	-		-	-	-	-	-	-	-	-	-	40.492	-	-	-	-	•	40.4
Support - Logistics Cost																		
Integrated Logistics Support	-	-	-	-	-	-	-	-	-	-	-	25.011	-	-	-	-	-	25.0
Subtotal: Support - Logistics Cost	-	-	-	-	-	-	-	-	-	-	-	25.011	-	-	-	-	-	25.0
Support - Program Manageme	ent Cost			,				,										

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Exhibit P-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A / 02 / 10

8930C61001 / INDIRECT FIRE PROTECTION CAPABILITY

INC 2-I

Date: February 2020

Item Number / Title [DODIC]: C62002 / IFPC INC 2-I BLOCK 1

SYSTEM

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

MDAP/MAIS Code:

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

	F	Prior Year	s		FY 2019			FY 2020		F۱	/ 2021 Ba	se	FY	/ 2021 OC	0	F	Y 2021 Tot	tal
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)												
Government Management	-	-	-	-	-	-	-	-	4.579	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	-	-	-	-	-	-	-	-	4.579	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	-	-	12	0.000	-	-	40.623	-	-	106.261	-	-	-	-	-	106.26

Remarks:

FY 2019 funding of \$31.286M was realigned from Advance Procurement to Base Procurement as part of Above Threshold Reprogramming (ATR) 19-04 to procure a portion of the FY 2019 Interim CMD (Iron Dome) hardware.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	12	-	-	-	-
	Total Obligation Authority	31.286	9.337	106.261	-	106.261
Total:	Quantity	12	-	-	=	-
Secondary Distribution	Total Obligation Authority	31.286	9.337	106.261	-	106.261

Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2021 Army

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air

8930C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-I

Missile System

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: 473

Program Elements for Code B Items: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Resource Summary	I ear S	F1 2019	F1 2020	Dase	000	IUlai	F1 2022	F1 2023	F1 2024	F1 2025	Complete	IUlai
Gross/Weapon System Cost (\$ in Millions)	-	31.286	-	-	-	-	-	-	-	-	Continuing	Continuing
Net Procurement (P-1) (\$ in Millions)	-	31.286	-	-	-	-	-	-	-	-	Continuing	Continuing
Total Obligation Authority (\$ in Millions)	-	31.286	-	-	-	-	-	-	-	-	Continuing	Continuing

Description:

The Indirect Fire Protection Capability Increment 2 (IFPC Inc 2) will provide a ground-based weapon system designed to acquire, track, engage, and defeat Cruise Missiles (CM), Unmanned Aircraft Systems (UAS), and Rocket, Artillery, and Mortar (RAM) threats. The IFPC Inc 2 system consists of a launcher and interceptor integrated with the Army Integrated Air and Missile Defense (AIAMD) open systems architecture, IAMD Battle Command System (IBCS), and the Sentinel sensor to support the Threshold CM and UAS defeat mission. The Objective counter-RAM mission employs both alternative kinetic and non-kinetic defeat solutions.

In Fiscal Year (FY) 2018, the Army evaluated alternative strategies to address an Army interim CM defense (CMD) capability at critical strategic fixed site locations while continuing the development of an IFPC capability. On 5 December 2019, the Army signed a contract with the Israeli Missile Defense Organization (IMDO) for two Interim CMD (Iron Dome) Batteries. For each of the interim capability's Iron Dome Batteries, the Army intends to employ a configuration that matches the Israeli Firing Unit.

Concurrently with the Interim CMD assessment, the Army will develop a launcher and interceptor solution that is integrated with the IBCS and the Sentinel sensor. The Army's decision for the IFPC Inc 2 capability will decide between an U.S. industry-based CMD launcher/interceptor and a componentized Iron Dome launcher/TAMIR-class interceptor. The Army will utilize a tailored acquisition approach to evaluate new capability and provide residual operational capability in FY 2023 and then transition into procurement and field by FY 2025.

No acquisition of Advance Procurement items is planned for FY 2021 funds.

Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2021 Army

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air

8930C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-I

Missile System

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: 473

Program Elements for Code B Items: N/A

Exhibits Schedule				Prior Years	FY 2019 FY 2020		FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-10	C62002 / IFPC INC 2-I BLOCK 1 SYSTEM			- / -	12 / 31.286	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- 1 -	12 / 31.286	- 1 -	- 1 -	- 1 -	- 1 -

^{*}Title represents the P-10 Title for Advance Procurement.

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

Justification:

No acquisition of advance procurement items is planned for FY 2021 funds.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-81), 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-10, Advance Procureme	nt Requirements Analys	sis (page 1 -	Budget Funding Just	tification): PB 2021	Army	Date: February 20)20			
Appropriation / Budget Activity / E 2032A / 02 / 10	Budget Sub Activity:		P-1 Line Item Number / Title: 8930C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-I				P-5 Number / Title: C62002 / IFPC INC 2-I BLOCK 1 SYSTEM			
First System (2021) Award Date: April 2019	First System (2021) Comp December 2020	letion Date:	tion Date: Interval Between System 12 Months							
IFPC INC 2-I BLOCK 1 SYSTEI	Leadtime	Prior Years (Each)	FY 2019 (Each)		FY 2020 (Each)	FY 2021 (Each)				
Quantity			- 12							
Cost Elements When Re		•	Prior Years (\$ M)	FY 2019 (\$ M)			FY 2021 (\$ M)			
Other										
ATR - Realign to Base for Iron Dome Procure	-	-	3	1.286	-	-				
Total: Other			-	3	1.286	-				
Total Advance Procurement/Obligation Authority			-	3	1.286	-				

P-1 Line #6

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Exhibit P-10, Advance Procurement Requirements Analysis	Date: February 2020	
2032A / 02 / 10		P-5 Number / Title: C62002 / IFPC INC 2-I BLOCK 1 SYSTEM

		FY 2021					
Cost Elements	QPA (Each)	Production Leadtime (Months)	Unit Cost	Contract Forecast Date	2021 Qty (Each)	For FY	Total Cost Request (\$ M)
Other							
ATR - Realign to Base for Iron Dome Procurement	-						-
Total: Other							-
Total Advance Procurement/Obligation Authority							-

Description:

FY 2017 Advance Procurement of MML materials for \$19.319 million was Rescinded by NDAA FY2018.

FY 2019 Advance Procurement of MML materials for \$31.286 million was realigned to Base Procurement funding to support the Procurement of the Interim CMD (Iron Dome) capability.

No acquisition of Advance Procurement items is planned for FY 2021 funds.

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 20: Air-To-Surface | 1338C70000 / Hellfire Sys Summary

Missile System

Program Elements for Code B Items: N/A

Other Related Program Elements: 0203802A, 0210109A

Line Item MDAP/MAIS Code: N/A

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	74,479	2,034	4,902	428	3,090	3,518	1,154	1,410	44	-	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	4,450.256	193.674	425.549	91.225	236.265	327.490	147.329	182.703	36.216	15.765	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	44.275	-	-	-	-	-	-	-	-	-	-	44.275
Net Procurement (P-1) (\$ in Millions)	4,405.981	193.674	425.549	91.225	236.265	327.490	147.329	182.703	36.216	15.765	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	44.275	-	-	-	-	-	-	-	-	-	-	44.275
Total Obligation Authority (\$ in Millions)	4,450.256	193.674	425.549	91.225	236.265	327.490	147.329	182.703	36.216	15.765	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	e corresponding	budget request	s are documente	ed elsewhere.)			ĺ	
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	59.752	95.218	86.811	213.143	76.461	93.090	127.668	129.577	823.091	-	Continuing	Continuing

Description:

The HELLFIRE II and Longbow family of air-to-ground missiles (all variants) provide attack helicopters and unmanned aircraft systems (UAS) with point-target precision strike capability to defeat heavy, advanced armor, individual hard point and non-traditional targets. HELLFIRE II Missiles use a semi-active laser terminal guidance and are the primary armaments of the AH-64 Apache, Army UAS and Special Operations aircraft. The HELLFIRE II includes Electro-Optical Countermeasure capability, warhead improvements and an updated electronic fuze. The AGM-114R HELLFIRE II family of missiles replaces all other HELLFIRE II missile configurations (K/N/M/P) except HELLFIRE Longbow. HELLFIRE II procurement funding supports the entire HELLFIRE II and HELLFIRE Longbow systems to include resolution of obsolescence, endof-life buys, safety, insensitive munitions, reliability, weapon integration activities, test sets, engineering changes, facilitization, production ramp-up activities and production issues. This missile is compatible on all current force UAS and rotary wing platforms.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	2,034	4,902	428	3,090	3,518	1,154	1,410	44	-
	Total Obligation Authority	193.674	425.549	91.225	236.265	327.490	147.329	182.703	36.216	15.765
Total:	Quantity	2,034	4,902	428	3,090	3,518	1,154	1,410	44	-
Secondary Distribution	Total Obligation Authority	193.674	425.549	91.225	236.265	327.490	147.329	182.703	36.216	15.765

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 20: Air-To-Surface | 1338C70000 / Hellfire Sys Summary

Missile System

Program Elements for Code B Items: N/A

Other Related Program Elements: 0203802A, 0210109A

Line Item MDAP/MAIS Code: N/A

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

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)	P-5a, P-21			74,479 / 4,450.256	2,034 / 193.674	4,902 / 425.549	428 / 91.225	3,090 / 236.265	3,518 / 327.490
P-40	Total Gross/Weapon System Cost				74,479 / 4,450.256	2,034 / 193.674	4,902 / 425.549	428 / 91.225	3,090 / 236.265	3,518 / 327.490

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

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

Justification:

FY2021 funding totals include \$91.225M in Base with a quantity of 428 and \$236.265M in OCO with a quantity of 3,090.

FY2021 All-up Round Unit Cost is based on a total gty of 7,659 missiles across all Customers. The Air-to-Ground Missile Systems (AGMS) Family of Munitions Production Capacity of 11,000 is shared by all customers (Army, AF, Navy, & FMS) and all AGMS missile variants (HF, JAGM, & Trainers). FY2021 has an available capacity of 3,341 AGMS missiles. Total procurement quantities decreased due to a \$153M reduction to the Army FY2021 budget and a \$48M reduction to the AF FY2021 budget.

The Army intends to convert any price advantage created through contract negotiations, other service procurement and/or Foreign Military sales (FMS) to increase the Army procurement of HELLFIRE II missiles.

The historical Army Acquisition Objective was 34,292.

HELLFIRE Product Office is the Procuring Agency for all Services.

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

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Exhibit P-5, Cost Analysis: PB 2021 Army

P-1 Line Item Number / Title:

2032A / 02 / 20 13386

Appropriation / Budget Activity / Budget Sub Activity:

1338C70000 / Hellfire Sys Summary

Date: February 2020

Item Number / Title [DODIC]: C70100 / LASER HELLFIRE MSL

76.461

(BASIC/IHW/HFII)

213.143

D Code (A=Service Ready, B=Not Service Ready):	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	74,479	2,034	4,902	428	3,090	3,518
Gross/Weapon System Cost (\$ in Millions)	4,450.256	193.674	425.549	91.225	236.265	327.490
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	4,450.256	193.674	425.549	91.225	236.265	327.490
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	4,450.256	193.674	425.549	91.225	236.265	327.490
(The following Resource Summary rows are for in	formational purposes only. The cor	responding budget request	s are documented elsewhe	re.)		
Initial Spares (\$ in Millions)	_	_	_	_	_	_

95.218

86.811

59.752

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

Gross/Weapon System Unit Cost (\$ in Thousands)

	F	rior Years	3		FY 2019			FY 2020		FY	' 2021 Bas	e	F١	2021 OC	0	F۱	/ 2021 Tota	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
All-up Rounds ^(†)	45.544	74,479	3,392.067	78.228	2,034	159.116	72.094	5,112	368.544	76.460	428	32.725	76.461	3,090	236.265	76.461	3,518	268.9
Engineering Services	-	-	496.779	-	-	1.159	-	-	31.591	-	-	29.387	-	-	-	-	-	29.3
Acceptance Testing	-	-	86.954	-	-	1.795	-	-	2.086	-	-	1.499	-	-	-	-	-	1.4
Subtotal: Recurring Cost	-	-	3,975.800	-	-	162.070	-	-	402.221	-	-	63.611	-	-	236.265	-	-	299.8
Subtotal: Flyaway Cost	-	-	3,975.800	-	-	162.070	-	-	402.221	-	-	63.611	-	-	236.265	-	-	299.8
Support - Fielding Cost																		
Fielding	-	-	39.367	-	-	6.119	-	-	4.982	-	-	5.141	-	-	-	-	-	5.1
Subtotal: Support - Fielding Cost	-	-	39.367	-	-	6.119	-	-	4.982	-	-	5.141	-	-	-	-	-	5.1
Support - Production Enginee	ering Cost																	
Production Engineering	-	-	195.259	-	-	13.547	-	-	9.984	-	-	15.502	-	-	-	-	-	15.5
Subtotal: Support - Production Engineering Cost	-	-	195.259	-	-	13.547	-	-	9.984	-	-	15.502	-	-	-	-	-	15.5
Support - Program Managem	ent Cost																	
Government Management	-	-	239.839	-	-	11.938	-	-	8.364	-	-	6.971	-	-	-	-	-	6.9
Subtotal: Support - Program Management Cost	-	-	239.839	-	-	11.938	-	-	8.364	-	-	6.971	-	-	-	-	-	6.9
Gross/Weapon System Cost	59.752	74,479	4,450.256	95.218	2,034	193.674	86.811	4,902	425.549	213.143	428	91.225	76.461	3,090	236.265	93.090	3,518	327.4

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P-1 Line #7

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93.090

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 20	P-1 Line Item Number / Title: 1338C70000 / Hellfire Sys Summary	Item Number / Title [DODIC]: C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)

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

MDAP/MAIS Code:

Remarks:

Fixed Price Incentive Fee (FPIF)

The production unit cost is based on all Services' base and Overseas Contingency Operations (OCO) quantity requirements known at this time. Above quantities are Army only. Total quantities include procurement by US Air Force, US Navy, US Army and FMS cases. Excess capacity will determine future FMS quantity availability. All procurement of Hellfire II AGM-114R missiles are reflected on the P21.

Exhibit P-5: Program Management and Production Engineering costs are allocated to services on a pro-rata share of quantities procured.

FY21 Program Management and Production Engineering costs increased based on the pro-rata share of these costs due to a \$153M reduction in the Army FY2021 funding and a \$48M reduction in the AF FY2021 funding.

Based on contract structure, all customers pay the same Unit Cost for the same configuration.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	2,034	4,902	428	3,090	3,518
	Total Obligation Authority	193.674	425.549	91.225	236.265	327.490
Total:	Quantity	2,034	4,902	428	3,090	3,518
Secondary Distribution	Total Obligation Authority	193.674	425.549	91.225	236.265	327.490

^(†) indicates the presence of a P-5a

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

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 02 / 20

P-1 Line Item Number / Title:
1338C70000 / Hellfire Sys Summary

Date: February 2020

Item Number / Title [DODIC]:
C70100 / LASER HELLFIRE MSL
(BASIC/IHW/HFII)

	0 0			Method/Type or		Award	Date of First	Otv	Unit Cost	Specs Avail	Date Revision	RFP Issue
Cost Elements	o	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	Qty (Each)	(\$ K)	Now?	Available	Date
All-up Rounds		2016	HELLFIRE Sys Limited Liability / Orlando	SS / FPIF	Redstone Arsenal, AL	Feb 2017	Mar 2019	113	175.000	Y		Dec 2013
All-up Rounds		2016	HF Sys Limited Liability / Orlando	SS / FPIF	Redstone Arsenal, AL	Feb 2017	Mar 2019	270	121.000	Y		Dec 2013
All-up Rounds ^(†)		2017	Lockheed Missile and Fire Ctrl / Orlando	SS / FPIF	Redstone Arsenal, AL	Sep 2017	Oct 2019	4,362	74.160	Y		Dec 2013
All-up Rounds ^(†)	1	2017	Lockheed Missile and Fire Ctrl / Orlando	SS / FPIF	Redstone Arsenal, AL	Sep 2017	Oct 2019	1,323	74.160	Y		Dec 2013
All-up Rounds ^(†)		2018	Lockheed Missile and Fire Ctrl / Orlando	SS / FPIF	Redstone Arsenal, AL	Sep 2018	Oct 2020	5,233	69.764	Y		Dec 2016
All-up Rounds ^(†)		2019	Lockheed Missile and Fire Ctrl / Orlando	SS / FPIF	Redstone Arsenal, AL	Apr 2019	Oct 2021	2,034	78.228	Y		Dec 2016
All-up Rounds ^(†)		2020	Lockheed Missile and Fire Ctrl / Orlando	SS / FPIF	Redstone Arsenal, AL	May 2020	Oct 2022	5,112	72.094	Y		Dec 2016
All-up Rounds ^(†)	1	2021	Lockheed Missile and Fire Ctrl / Orlando	SS / FPIF	Redstone Arsenal, AL	May 2021	Oct 2023	3,090	76.461	Y		Dec 2016
All-up Rounds ^(†)		2021	Lockheed Missile and Fire Ctrl / Orlando	SS / FPIF	Redstone Arsenal, AL	May 2021	Oct 2023	428	76.460	Y		Dec 2016

^(†) indicates the presence of a P-21

Remarks:

Fixed Price Incentive Fee (FPIF)

The production unit cost is based on all Services' base and Overseas Contingency Operations (OCO) quantity requirements known at this time. Above quantities are Army only. Total quantities include procurement by US Air Force, US Navy, US Army and FMS cases. Excess capacity will determine future FMS quantity availability. All procurement of Hellfire II AGM-114R missiles are reflected on the P21.

See Exhibit P-5 for Unit Cost. Program Management, Production Engineering and unit cost may change based on quantities procured by all Services and Foreign Military Sales (FMS) customers.

Based on contract structure all customers pay the same Unit Cost for the same configuration.

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st Elements inits in Each) PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	### BAL DUE AS OF 1 OCT 4,362 965 5,327 1,323 5,233 5,233	o c T	N O V	D E C	J A N	F E B	133	38C70	0000	/ Hell	fire Sy	/s Sui		0 C T	N O V	D E C	J A N	F E B	C70 ⁻ (BAS	100 / SIC/IH ear 2018	LASE IW/HI	R HE			S E P	A N
Name																											
63178 4,362 965 5,327 1,323 5,233 71 5,304	PRIOR TO 1 OCT 2016 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	### A S OF 1 OCT 4,362 965 5,327 1,323 5,233	С	0	D E C		E	Α	P	М	J	J	A U	S E P	O C T	0	D E C		F E B	Α	A P	М	J		A U G	E	A N
63178 4,362 965 5,327 1,323 5,233 71 5,304	TO 1 OCT 2016	4,362 965 5,327 1,323 5,233	С	0	D E C		E	Α	P			U		S E P	O C T	0	D E C		F E B	Α	Р	M A Y	J U N		A U G	E	N
4,362 965 5,327 1,323 5,233 71 5,304	0 0 0 0	965 5,327 1,323 5,233																									
4,362 965 5,327 1,323 5,233 71 5,304	0 0 0 0	965 5,327 1,323 5,233																									
965 5,327 1,323 5,233 71 5,304	0 0 0 0	965 5,327 1,323 5,233																									
5,327 1,323 5,233 71 5,304	0 0 0	5,327 1,323 5,233												A -	-	-	-	-	-	-	-	-	-	-	-	-	4,3
1,323 5,233 71 5,304	0 0	1,323 5,233												Α -	-	-	-	-	-	-	-	-	-	-	-	-	9
5,233 71 5,304	0	5,233												-	-	-	-	-	-	-	-	-	•	-	-	-	5,3
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5,304		71																									_
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2,034		-,																									_
	0																										-
208	0	208																									2
2,242	0	2,242																									2,2
3,859	0	3,859																									3,8
5,112	0	5,112																									5,1
681	0	681																									6
9,652	0	9,652																									9,6
2,687	0	2,687																									2,6
428	0	428																									4
ase 3,115	0	3,115																									3,1
3,090	0	3,090				,				,																	3,0
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as	681 9,652 2,687 428 e 3,115	681 0 9,652 0 2,687 0 428 0 e 3,115 0	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,115 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,090 0 3,090	681 0 681 9,652 0 9,652 2,687 0 2,687 428 0 428 e 3,115 0 3,090 0 3,090

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		P-21, Pro																					Date							
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All-up	Rounds							,									<u> </u>	,			·									
Prior	Years De	eliveries: 6317	78																											
1	2017	ARMY	4,362	0	4,362	-	-	-	-	-	-	-	-	-	-	-	-	364	364	364	364	364	364	364	364	364	364	363	359	
1	2017	FMS ^(‡)	965	0	965	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
-	2017		5,327	0	-	-	-	-	-	-	-	-	-	-	-	-	-	364	364	364	364	364	364	364	364	364	364	363	359	-
_	2017	ARMY	1,323	0		-	-	-	-	-	-	-	-	-	-	-	-	111	111	111	111	111	111	111	111	111	111	111	102	-
1	2018	ARMY	5,233	0	5,233	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,2
_	2018	FMS (‡)	71	0		-	-	-	-	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6		6	5	_
1	2018	Total	5,304	0	1,11	-	-	-	-	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	5	-,-
1		ARMY	2,034	0	- ' - 							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,0
1	2019	FMS (‡)	208	0	208							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
1	2019	Total	2,242	0	2,242						_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,2
1	2020	AF ^(‡)	3,859	0	3,859																				Α -	-	-	-	-	3,8
1	2020	ARMY	5,112	0	5,112																				Α -	-	-	-	-	5,1
1	2020	FMS ^(‡)	681	0	681																				A -	-	-	-	-	6
1	2020	Total	9,652	0	9,652																				-	-	-	-	-	9,6
1	2021	AF ^(‡)	2,687	0	2,687																									2,6
1	2021	ARMY	428	0	428																									4
1	2021	Total Base	3,115	0	3,115																									3,1
/ 1	2021	ARMY	3,090	0	3,090																									3,0
						C	N O	D E	J A	F E	M A	A P	M A	Ŋ	J	A U	S E	O C T	N O	D E	J A	F E	M A	A P	M A	N J	N N	A U	S E	
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All-u	p Ro	ounds					1					,																			
Prior	Yea	ars Del	liveries: 6317	'8																											
1	2	-	ARMY	4,362	4,362		-	-	-	-	-	-	-	-	-	-	-	-													_
1	2	2017	FMS (‡)	965	0	965	81	81	81	81	81	80	80	80	80	80	80	80	_												
-	+	_	Total	5,327	4,362		81	81	81	81	81	80	80	80	80	80	80	80	-	-	-	-	-	-	-	-	-	-	-	-	\perp
_	_	_	ARMY	1,323	1,323	0																									_
\rightarrow	_	_	ARMY	5,233	0		437	436	436	436	436	436	436	436	436	436	436	436													<u></u>
	_	_	FMS (‡)	71	71	0	-	-	-	-	-	-	-	-	-	-	-	-		-			1	1	1	1			ı		▙
+	-	_	Total	5,304	71	<u> </u>	437	436	436	436	436	436	436	436	436	436	436	436	-	-	-	-	-	-	-	-	-	-	-	-	ــــ
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+	_	_	FMS ^(‡)	208	0		-	-	-	-	-	-	-	-	-	-	-	-	18	18	18	18	17	17	17	17	17	17	17	17	+
+	+	_	Total	2,242	0	· ·	-	-	-	-	-	-	-	-	-	-	-	-	188	188	188	188	187	187	186	186	186	186	186	186	+
_ 1	-		AF ^(‡)	3,859	0	-7	-		-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-		3,
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+	+	_	FMS (‡)	681	0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
_ 1	2	_	Total	9,652	0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,
1	2	2021	AF ^(‡)	2,687	0	2,687	_							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,
1	_	_	ARMY	428	0									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
_ 1	_		Total Base	3,115	0	-, -								-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,
/ 1	2	2021	ARMY	3,090	0	3,090	_						-	A -	-		-	-	-	-	-	-	-	-	-	-		-	-		3,
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			Cost El (Units i									Fiscal Ye	ear 2023											Fiscal Ye		,	•			
0 F 0 #	2	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	Year 202 J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U	A U G	S E P
		ounds																												
Prior	Yea	ars De	liveries: 6317	8																										
1	2	2017	ARMY	4,362	4,362	0																								
1	2	2017	FMS (‡)	965	965	0																								
1	2	2017	Total	5,327	5,327	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	2	2017	ARMY	1,323	1,323	0																						·		
1	2	2018	ARMY	5,233	5,233	0																								
1	2	2018	FMS (‡)	71	71	0																								
1	2	2018	Total	5,304	5,304	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	2	2019	ARMY	2,034	2,034	0																								
1	2	2019	FMS (‡)	208	208	0																								
1	2	2019	Total	2,242	2,242	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	2	2020	AF ^(‡)	3,859	0	3,859	322	322	322	322	322	322	322	321	321	321	321	321		•										
1	2	2020	ARMY	5,112	0	5,112	426	426	426	426	426	426	426	426	426	426	426	426												
1	2	2020	FMS (‡)	681	0	681	57	57	57	57	57	57	57	57	57	56	56	56												
1	2	2020	Total	9,652	0	9,652	805	805	805	805	805	805	805	804	804	803	803	803	-	-	-	-	-	-	-	-	-	-	-	-
1	2	2021	AF ^(‡)	2,687	0	2,687	-	-	-	-	-	-	-	-	-	-	-	-	224	224	224	224	224	224	224	224	224	224	224	223
1	2	2021	ARMY	428	0	428	-	_	-	-	-	-	-	-	-	_	-	-	36	36	36	36	36	36	36	36	36	36	36	32
1	2	2021	Total Base	3,115	0	3,115	-	-	-	-	-	-	-	-	-	-	-	-	260	260	260	260	260	260	260	260	260	260	260	255
y 1	2	2021	ARMY	3,090	0	3,090	-	-	-	-	-	-	-	-	-	-	-	-	258	258	258	258	258	258	258	258	258	258	258	252
							0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	M	Α	М	J	J	Α	S
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LI 1338C70000 - Hellfire Sys Summary Army

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Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 20	P-1 Line Item Number / Title: 1338C70000 / Hellfire Sys Summary	Item Number / Title [DODIC]: C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)

		Produc	ction Rates (Each	/ Year)				Procurement Le	adtime (Months)			
MFR						Init	ial			Reo	rder	
Ref #	Manufacturer Name - Location	MSR For 2021	1-8-5 For 2021	MAX For 2021	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
	Lockheed Missile and Fire Ctrl - Orlando	3,600	6,000	11,000	5	12	24	36	5	12	24	36

Remarks:

Yearly Minimum Sustainment Rate (MSR) = 3,600 missiles.

Yearly Economical Production Rate (1-8-5) = 6,000 missiles.

Yearly Maximum Production Rate (MPR) = 11,000 missiles.

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 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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^(‡) 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.

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 20: Air-To-Surface 2605C70302 / Joint Air-to-Ground MSLS (JAGM)

Missile System

Program Elements for Code B Items: N/A

Other Related Program Elements: 0605450A

Date: February 2020

Line Item MDAP/MAIS Code: 355

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	1,272	721	494	657	-	657	294	603	544	548	-	5,133
Gross/Weapon System Cost (\$ in Millions)	313.244	256.462	199.295	213.397	-	213.397	165.494	213.375	208.607	206.140	-	1,776.014
Less PY Advance Procurement (\$ in Millions)	64.456	-	-	-	-	-	-	-	-	-	-	64.456
Net Procurement (P-1) (\$ in Millions)	248.788	256.462	199.295	213.397	-	213.397	165.494	213.375	208.607	206.140	-	1,711.558
Plus CY Advance Procurement (\$ in Millions)	64.456	-	-	-	-	-	-	-	-	-	-	64.456
Total Obligation Authority (\$ in Millions)	313.244	256.462	199.295	213.397	-	213.397	165.494	213.375	208.607	206.140	-	1,776.014
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	g budget requests	s are documente	d elsewhere.)			·	
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	246.261	355.703	403.431	324.805	-	324.805	562.905	353.856	383.469	376.168	-	345.999

Description:

The Joint Air-to-Ground Missile (JAGM) program is an Army-led, Acquisition Category (ACAT) IC Major Defense Acquisition Program (MDAP) with joint interest with the U.S. Marine Corps (USMC), U.S. Navy, and U.S. Air Force. The JAGM is the next generation of aviation-launched, fire and forget missiles to replace all variants of HELLFIRE. The JAGM multi-mode Guidance Section is integrated with the combat proven HELLFIRE II (AGM-114R) propulsion, warhead, and control section. JAGM will be used by joint service aircraft for destruction of high value stationary, moving, and relocatable land and maritime targets from standoff range in day, night, adverse weather, and obscured battlefield conditions. The program's threshold platforms are the U.S. Army AH-64E Apache and USMC AH-1Z. JAGM procurement funding supports the entire JAGM system to include resolution of obsolescence, training devices for tactical training, safety, reliability, weapon integration activities, test sets, engineering services, facilitization, production ramp-up activities and production issues.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	721	494	657	-	657	294	603	544	548
	Total Obligation Authority	256.462	199.295	213.397	-	213.397	165.494	213.375	208.607	206.140
Total:	Quantity	721	494	657	-	657	294	603	544	548
Secondary Distribution	Total Obligation Authority	256.462	199.295	213.397	-	213.397	165.494	213.375	208.607	206.140

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 20: Air-To-Surface | 2605C70302 / Joint Air-to-Ground MSLS (JAGM)

Missile System

Program Elements for Code B Items: N/A

Other Related Program Elements: 0605450A

Line Item MDAP/MAIS Code: 355

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

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C70302 / Joint Air-to-Ground MSLS (JAGM)	P-5a, P-21			1,272 / 313.244	721 / 256.462	494 / 199.295	657 / 213.397	- / -	657 / 213.397
P-40	Total Gross/Weapon System Cost				1,272 / 313.244	721 / 256.462	494 / 199.295	657 / 213.397	- 1 -	657 / 213.397

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

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

Justification:

FY 2021 procurement dollars in the amount of \$213.397M supports the procurement of 657 missiles and Project Management Cost and Engineering Services funding.

The Army intends to convert any price advantage created through contract negotiations and/or other service procurement to increase the Army procurement of JAGM missiles.

The JAGM Product Office is the procurement agent for all services.

The Army Acquisition Objective is 20,303.

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

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Exhibit P-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 02 / 20

P-1 Line Item Number / Title:
2605C70302 / Joint Air-to-Ground MSLS (JAGM)

C70302 / Joint Air-to-Ground MSLS (JAGM)

ID Code (A=Service Ready, B=Not Service Ready):		ME	DAP/MAIS Code:			
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	1,272	721	494	657	-	657
Gross/Weapon System Cost (\$ in Millions)	313.244	256.462	199.295	213.397	-	213.397
Less PY Advance Procurement (\$ in Millions)	64.456	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	248.788	256.462	199.295	213.397	-	213.397
Plus CY Advance Procurement (\$ in Millions)	64.456	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	313.244	256.462	199.295	213.397	-	213.397
(The following Resource Summary rows are for informati	onal purposes only. The cor	responding budget request	s are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	246.261	355.703	403.431	324.805	-	324.805

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

	Pi	rior Years	;		FY 2019			FY 2020		F۱	/ 2021 Bas	se	F١	/ 2021 OC	0	F۱	2021 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost				'	'	'	'	'		'			'		'	'	'	
Recurring Cost																		
All Up Rounds (AUR) ^(†)	175.361	1,272	223.059	223.569	721	161.193	201.368	494	99.476	203.965	657	134.005	-	-	-	203.965	657	134.00
Engineering Services	-	-	17.631	-	-	19.016	-	-	17.235	-	-	20.419	-	-	-	-	-	20.419
Guidance Section Long Lead Items	-	-	38.600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceptance Testing	-	-	-	-	-	1.224	-	-	1.915	-	-	1.953	-	-	-	-	-	1.953
Subtotal: Recurring Cost	-	-	279.290	-	-	181.433	-	-	118.626	-	-	156.377	-	-	-	-	-	156.37
Non Recurring Cost							•	·		·					,			
HELLFIRE Backend Long Lead Items	-	-	25.856	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tooling and Test Equipment	-	-	-	-	-	6.785	-	-	7.334	-	-	5.284	-	-	-	-	-	5.28
Subtotal: Non Recurring Cost	-	-	25.856	-	-	6.785	-	-	7.334	-	-	5.284	-	-	-	-	-	5.28
Subtotal: Flyaway Cost	-	-	305.146	-	-	188.218	-	-	125.960	-	-	161.661	-	-	-	-	-	161.66
Support - Fielding Cost		·			'		<u> </u>											
Fielding	-	-	-	-	-	0.890	-	-	0.875	-	-	0.893	-	-	-	-	-	0.893
Subtotal: Support - Fielding Cost	-	-	-	-	-	0.890	-	-	0.875	-	-	0.893	-	-	-	-	-	0.89
Support - Initial Spares and R	epair Parts Cost	t			,													

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Exhibit P-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 02 / 20

P-1 Line Item Number / Title:
2605C70302 / Joint Air-to-Ground MSLS (JAGM)

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

MDAP/MAIS Code:

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

		Prior Years	•		FY 2019			FY 2020		E/	/ 2021 Bas	20	E,	/ 2021 OC	<u> </u>	E	2021 Total	al
	-	Tioi reals	Total		F1 2019	Total		F1 2020	Total		1 202 1 Da	Total	Г	1 2021 00	Total		1 2021 100	Total
Cost Elements	Unit Cost	Qty (Each)	Cost (\$ M)	Unit Cost	Qty (Each)	Cost (\$ M)	Unit Cost	Qty (Each)	Cost (\$ M)	Unit Cost	Qty (Each)	Cost (\$ M)	Unit Cost	Qty (Each)	Cost (\$ M)	Unit Cost	Qty (Each)	Cost (\$ M)
Initial Spares and Repair Parts	-	-	-	-	-	-	-	-	1.926	-	-	1.206	-	-	-	-	-	1.20
Subtotal: Support - Initial Spares and Repair Parts Cost	-	-	-	-	-	-	-	-	1.926	-	-	1.206	-	-	-	-	-	1.20
Support - Non-Recurring Sup	port Cost																	
Facilitization	-	-	-	-	-	20.438	-	-	19.985	-	-	-	-	-	-	-	-	-
Subtotal: Support - Non- Recurring Support Cost	-	-	-	-	-	20.438	-	-	19.985	-	-	-	-	-	-	-	-	_
Support - Production Enginee	ering Cost				,				,									
Production Engineering	-	-	4.621	-	-	28.063	-	-	21.826	-	-	19.695	-	-	-	-	-	19.695
Subtotal: Support - Production Engineering Cost	-	-	4.621	-	-	28.063	-	-	21.826	-	-	19.695	-	-	-	-	-	19.69
Support - Program Managem	ent Cost				'										'		'	
Government Management	-	-	3.477	-	-	14.938	-	-	12.055	-	-	13.932	-	-	-	-	-	13.932
Subtotal: Support - Program Management Cost	-	-	3.477	-	-	14.938	-	-	12.055	-	-	13.932	-	-	-	-	-	13.93
Support - System Test and E	valuation Cost				,												,	
Test and Evaluation Support	-	-	-	-	-	3.915	-	-	16.668	-	-	16.010	-	-	-	-	-	16.010
Subtotal: Support - System Test and Evaluation Cost	-	-	-	-	-	3.915	-	-	16.668	-	-	16.010	-	-	-	-	-	16.01
Gross/Weapon System Cost	246.261	1,272	313.244	355.703	721	256.462	403.431	494	199.295	324.805	657	213.397	-	-	-	324.805	657	213.397

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	721	494	657	-	657
	Total Obligation Authority	256.462	199.295	213.397	-	213.397
Total:	Quantity	721	494	657	-	657
Secondary Distribution	Total Obligation Authority	256.462	199.295	213.397	-	213.397

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 A	Army	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 20	P-1 Line Item Number / Title: 2605C70302 / Joint Air-to-Ground MSLS (JAGM)	Item Number / Title [DODIC]: C70302 / Joint Air-to-Ground MSLS (JAGM)

	0			Method/Type or		Award	Date of First	Qty	Unit Cost	Specs Avail	Date Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$ K)	Now?	Available	Date
All Up Rounds (AUR) ^(†)		2017	Lockheed Martin / Orlando	C / FPIF	Redstone Arsenal, AL	Aug 2018	Dec 2018	373	165.980	Υ		Feb 2015
All Up Rounds (AUR) ^(†)		2018	Lockheed Martin / Orlando	C / FPIF	Redstone Arsenal, AL	Sep 2018	Dec 2019	899	170.284	Υ		Feb 2015
All Up Rounds (AUR) ^(†)		2019	Lockheed Martin / Orlando	C / FPIF	Redstone Arsenal, AL	Nov 2019	Dec 2021	721	223.569	Υ		Aug 2018
All Up Rounds (AUR) ^(†)		2020	Lockheed Martin / Orlando	SS / FPIF	Redstone Arsenal, AL	Nov 2020	Oct 2022	494	201.368	Υ		Jun 2019
All Up Rounds (AUR) ^(†)		2021	Lockheed Martin / Orlando	SS / FPIF	Redstone Arsenal, AL	May 2021	Oct 2023	657	203.965	Y		Jun 2019

^(†) indicates the presence of a P-21

Exh	ibit	t P-21, Pr	oducti	on Sc	hedul	le: PE	3 202	1 Arm	ıy														Date	: Feb	ruary	2020				
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			lements in Each)								Fiscal Y	ear 2018											Fiscal Ye							В
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All Up	Rour	nds (AUR)														1												,		
1	201	17 ARMY	373	0	373											Α -	-	-	-	13	19	-	96	32	30	30	30	30	31	
1	201	17 NAVY (‡)	104	0	104											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	1
1	201	17 Total	477	0	477											-	-	-	-	13	19	-	96	32	30	30	30	30	31	1
1	201	_	899	0	899												Α -	-	-	-	-	-	-	-	-	-	-	-	-	8
1	201		721	0	721																									7:
1	201	19 NAVY ^(‡)	75	0	75																									
1	201	19 Total	796	0	796																									7
1	202	20 AF ^(‡)	60	0	60																									
1	202	20 ARMY	494	0	494																									4
1	202	20 NAVY (‡)	320	0	320																									3:
1	202	20 Total	874	0	874																									8
1	202	21 ARMY	657	0	657																									6
1	202	21 NAVY ^(‡)	203	0	203																									2
1	202	21 Total	860	0	860																									8
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LI 2605C70302 - Joint Air-to-Ground MSLS (JAGM) Army

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LI 2605C70302 - Joint Air-to-Ground MSLS (JAGM) Army

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PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Budg o c T	et Su		ivity:		260							SLS (14 0 1	A)							[DOD Grou		SLS
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796	0	796	-	-	68	67	68	67	68	67	68	67	68	67	60	61	-	-	-	-	-	-	-	-	-	-
60	0	60	-	-	-	-	-	-	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
494	0	494	-	-	-	-	-	-	-	-	-	-	-	-	42	41	41	41	41	41	41	41	41	41	41	42
(‡) 320	0	320	-	-	-	-	-	-	-	-	-	-	-	-	27	27	27	26	26	26	26	26	26	26	26	31
874	0	874	-	-	-	-	-	-	-	-	-	-	-	-	74	73	73	72	72	72	72	72	72	72	72	78
657	0	657	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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		9-21, Pro																							oruary					
		i ation / 1 02 / 20	Budge	t Acti	vity /	Budg	et Su	ıb Act	ivity:			Line 5C70					ınd M	SLS ((JAGI	M)				302 <i>I</i>			[DO I o-Grou		SLS	
			ements n Each)								Fiscal Ye	ear 2024											Fiscal Ye	ear 2025	,			,		
				ACCEPT PRIOR									С	alendar	Year 202	4								Caler	dar Year	2025				1
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	Rounds	(AUR)																												
1	2017	ARMY	373	373	0																									П
1	2017	NAVY (‡)	104	104	0																									
1	2017	Total	477	477	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	2018	ARMY	899	899	0													,	,		,									
1	2019	ARMY	721	721	0																									
1	2019	NAVY (‡)	75	75	0																									
1	2019	Total	796	796	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	2020	AF ^(‡)	60	60	0																									
1	2020	ARMY	494	494	0																									
1	2020	NAVY (‡)	320	320	0																									
1	2020	Total	874	874	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	2021	ARMY	657	0	657	55	55	55	55	55	55	55	55	55	55	55	52				,									
1	2021	NAVY (‡)	203	0	203	17	17	17	17	17	17	17	17	17	17	17	16													
1	2021	Total	860	0	860	72	72	72	72	72	72	72	72	72	72	72	68	-	-	-	-	-	-	-	-	-	-	-	-	
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	Z N C	n N	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 20	P-1 Line Item Number / Title: 2605C70302 / Joint Air-to-Ground MSLS (JAGM)	Item Number / Title [DODIC]: C70302 / Joint Air-to-Ground MSLS (JAGM)

		Produc	ction Rates (Each	/ Year)				Procurement Lea	adtime (Months)		-	
MFR						Init	ial			Reo	rder	
Ref		MSR For 2021	1-8-5 For 2021	MAX For 2021	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	Lockheed Martin - Orlando	600	1,200	2,400	5	12	24	36	5	12	24	36

Remarks:

FY 2020 total quantities includes Navy and Air Force purchases. FY 2021 total quantities includes Navy purchases.

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 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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^(‡) 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.

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 20: Air-To-Surface | 2607C71300 / Long Range Precision Munition

Missile System

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	-	45.307	-	45.307	-	-	-	-	-	45.307
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	-	45.307	-	45.307	-	-	-	-	-	45.307
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	45.307	-	45.307	-	-	-	-	-	45.307
(The following	Resource Sum	mary rows are fo	or informational p	ourposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)	1			
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The LRPM will provide Army Aviation with improved and longer range weapons, sub-systems, and munitions that can rapidly respond in a combat environment improving the survivability of the warfighters and weapon systems in an anti-access/area denial (A2/AD) and positioning, navigation, and timing (PNT) denied environment. The ability to interoperate and coordinate with other weapon systems and munitions at long ranges and adapt to changing threats is a core concept of the Army Aviation Weapons Sub-Systems and Munitions (AAWSSM) program.

The Spike Non-line of Sight (NLOS) directed requirement will federate an existing production system to the Apache AH-64 as an interim solution that will provide longer stand-off ranges in an anti-access/area denial (A2/AD) environment until a more effective integrated Army Aviation Weapons Sub-Systems and Munitions (AAWSSM) LRPM solution can be developed.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	45.307	-	45.307	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	-	-	45.307	-	45.307	-	-	-	-

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Exhib	oit P-40, Budget Line Item Justification: F	PB 2021 Ar	my					Date: Fe	ebruary 2020	
Appr 2032/	opriation / Budget Activity / Budget Sub A: Missile Procurement, Army / BA 02: Othe e System	Activity:		SA 20: /		P-1 Line Item Nu 2607C71300 / Lo		on Munition	•	
ID Cod	e (A=Service Ready, B=Not Service Ready):	Pro	ogra	m Elem	ents for Code B Iten	ns: N/A	Other F	Related Program Ele	ements: N/A	
Line It	em MDAP/MAIS Code: N/A						- '			
	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	C71304 / LRPM-INTERIM				- / -	- / -	- / -	- / 45.307	- / -	- / 45.307
P-40	Total Gross/Weapon System Cost				- 1 -	- 1 -	- 1 -	- / 45.307	- 1 -	- / 45.307
	presents 1) the Number / Title for Items; 2) the Number / Title	· · · · · · · · · · · · · · · · · · ·		ition; and	or 3) the Number / Title	(Modification Type) for N	Modifications.			
Note: To	otals in this Exhibit P-40 set may not be exact or sum exactly o	lue to rounding.								
The A	and Engineering Services funding. Try intends to convert any price advantage created the Range Precision Munition is a new start in FY2021.	rough contrac	et neg	gotiation	s and/or other service	e procurement to incr	ease the Army procu	rement of Spike Non-	Line of Sight (SPIKE	NLOS) Missiles.

Analysis	s: PB 20	21 Army	/										Date: Fe	ebruary 2	2020		
udget A	ctivity /	Budget	Sub Act	ivity:						lunition							
y, B=Not Serv	ice Ready):							М	DAP/MAIS	Code:							
		arv			Prior Ye	ars	FY 20	019	FY	2020	FY 2	2021 Bas	e F	Y 2021 (осо	FY 2021	Total
		,									+						
	ns)					_					+	45			_		45.307
· ·						-		_					-		-		-
•						-		_				45	.307		-		45.307
	lions)					-		_		_			-		-		
						-		-		-		45	.307		-		45.307
ne following i	Resource Si	ummary row	s are for info	ormational	purposes onl	y. The corres	sponding bud	dget reques	ts are docume	ented elsewh	ere.)						
						-		-		-	T		-		-		_
nit Cost (\$ in	Thousands)					-		-		-			-		-		-
				,		'			'		'		'				
n this Exhibit	P-5 may no	ot be exact of	or sum exact	ly due to re	ounding.												
F	Prior Years	S		FY 2019	•		FY 2020		FY	2021 Base	•	FY	2021 OC	0	I	FY 2021 Tota	al
Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost			Total Cost (\$ M)
1. /	, ,	, ,	. ,	, ,	, ,	, ,	, , ,	, , ,	,,,,	, ,		,,,,	· , ,	,	, ,	, ,	
-	-	-	-	-	-	-	-	-	210.000	205	43.050	-	-	-	210.00	0 205	43.050
-	-	-	-			-	-	-	-	-	0.548	-	-	-	-	-	0.548
								-									0.026
								-				-					43.624 43.624
-	-	-	-	-	-	-	-	-	-	-	43.024	-	-	-		-	43.024
_	_	_	_	_		_	_	_	_		0.343	_		_		_	0.343
-	-	-	-	-	-	-	-	-	-	-	0.343	-	-	-	-	-	0.343
ent Cost																	
-	-	-	-	-	-	-	-	-	-	-	1.340	-	-	-	-	-	1.340
-	-	-	-	-	-	-	-	-	-	-	1.340	-	-	-	-	-	1.340
-	-	-	-	-	-	-	-	-	-	-	45.307	-	-	-	-	-	45.307
											FY 2	021	1	FY 2021		FY 202)1
Sec	ondary Di	stribution	1			FY	2019		FY 2020					OCO			
	Qua	intity						-		-					-		
		al Obligation A						_					1		i		45.307
	y, B=Not Serv Resource s in Each) st (\$ in Million ment (\$ in Millions) ment (\$ in Millions) ment (\$ in Millions) the following in this Exhibit F Unit Cost (\$ K)	udget Activity / y, B=Not Service Ready): Resource Summ is in Each) set (\$ in Millions) ment (\$ in Millions) ment (\$ in Millions) y (\$ in Millions) y (\$ in Millions) he following Resource So it Cost (\$ in Thousands) This Exhibit P-5 may no Prior Years Unit Cost (\$ K) Qty (Each) Secondary Di Qua	udget Activity / Budget y, B=Not Service Ready): Resource Summary is in Each) st (\$ in Millions) ment (\$ in Millions) ment (\$ in Millions) y (\$ in Millions) the following Resource Summary row it Cost (\$ in Thousands) Total Cost (\$ K) Unit Cost (\$ K) Qty (Each) Total Cost (\$ M) Find Cost (\$ M) Cost (\$ M) Cost Cost	Resource Summary Is in Each) Ist (\$ in Millions) Iment (\$ in Mill	udget Activity / Budget Sub Activity: Sesource Summary Is in Each) Set (\$ in Millions) Iment (\$ in Millions)	udget Activity / Budget Sub Activity: P-1 2607 y, B=Not Service Ready): Resource Summary Is in Each) Ist (\$ in Millions) Iment (\$ in Millions) Iment (\$ in Millions) Iment (\$ in Millions) In Millions) In this Exhibit P-5 may not be exact or sum exactly due to rounding. Prior Years FY 2019 Unit Cost (\$ in Thousands) Unit Cost (\$ in Millions) Cost (\$ in Millions)	P-1 Line Item 2607C71300	udget Activity / Budget Sub Activity: P-1 Line Item Number 2607C71300 / Long Resource Summary Prior Years FY 20 In Each St. In Millions St	P-1 Line Item Number / Title 2607C71300 / Long Range Processing Processin	P-1 Line Item Number / Title: 2607C71300 / Long Range Precision M y, B-Not Service Ready): MDAP/MAIS Resource Summary	P-1 Line Item Number / Title: 2607C71300 / Long Range Precision Munition	P-1 Line Item Number / Title: 2607C71300 / Long Range Precision Munition	P-1 Line Item Number / Title: 2607C71300 / Long Range Precision Munition Code: Code:	Item Number / Title: 2607C71300 / Long Range Precision Munition C71304	P-1 Line Item Number / Title: 2607C71300 / Long Range Precision Munition C71304 / LRPM	Let Number / Title Dec Cr1300 / Long Range Precision Munition Cr1304 / LRPM-INTER Dec De	Line Hem Number / Title DDIC : 2607C71300 / Long Range Precision Munition MDAP/MAIS Code: MDAP/MAIS CODE:

LI 2607C71300 - Long Range Precision Munition Army

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Exhibit P-5, Cost Anal	ysis: PB 2021 Army				Date: February 2020	
	et Activity / Budget Sub Activity:	P-1 Line Item Number 2607C71300 / Long Rar		It	tem Number / Title [C71304 / LRPM-INTE	[DODIC]:
ID Code (A=Service Ready, B=No	t Service Ready):	1	MDAP/MAIS Code:			
	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Total:	Quantity	-	-	-	-	
Secondary Distribution	Total Obligation Authority	-	-	45.307	-	45.3

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

0648CC0007 / Javelin (AAWS-M) System Summary

Assault Missile Svs

Program Elements for Code B Items: N/A

Other Related Program Elements: 0604611A

Line Item MDAP/MAIS Code: 280

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	OCO	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	31,400	1,247	697	773	-	773	520	752	1,157	1,193	-	37,739
Gross/Weapon System Cost (\$ in Millions)	5,110.934	245.485	142.794	190.325	-	190.325	137.638	167.949	229.197	238.660	-	6,462.982
Less PY Advance Procurement (\$ in Millions)	100.622	-	-	-	-	-	-	-	-	-	-	100.622
Net Procurement (P-1) (\$ in Millions)	5,010.312	245.485	142.794	190.325	-	190.325	137.638	167.949	229.197	238.660	-	6,362.360
Plus CY Advance Procurement (\$ in Millions)	100.622	-	-	-	-	-	-	-	-	-	-	100.622
Total Obligation Authority (\$ in Millions)	5,110.934	245.485	142.794	190.325	-	190.325	137.638	167.949	229.197	238.660	-	6,462.982
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	g budget request:	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	162.769	196.860	204.869	246.216	-	246.216	264.688	223.336	198.096	200.050	-	171.255

Description:

Javelin provides the United States Army and United States Marine Corps (USMC) a man-portable, fire-and-forget, medium-range missile with enhanced situational awareness and precision direct-fire effects to defeat armored vehicles, fortifications, and soft targets in a range of military operations. Javelin has a high kill rate against a variety of targets at extended ranges under day/night, battlefield obscurants, adverse weather and multiple counter-measure conditions. The system's soft launch feature permits firing from a fighting position or an enclosure. Javelin uses a modular design to allow the system to evolve to meet changing threats and requirements via both software and hardware upgrades. The system consists of a reusable Command Launch Unit (CLU) with a built-in-test (BIT), and a modular missile encased in a disposable launch tube assembly. The system also includes training devices for tactical training and classroom training. Javelin's fire-and-forget technology allows the gunner to fire and immediately take cover, to move to another fighting position, or to reload. The Javelin provides enhanced lethality through the use of a tandem multi-purpose warhead which will defeat all known armor threats. It is effective against both stationary and moving targets. This system also provides defensive capability against attacking/hovering helicopters. In current conflicts the CLU is being used as a stand-alone surveillance and target acquisition asset. The Army is the lead for this joint program with the USMC.

				FY 2021	FY 2021	FY 2021				
Secondar	y Distribution	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	1,247	697	773	-	773	520	752	1,157	1,193
	Total Obligation Authority	245.485	142.794	190.325	-	190.325	137.638	167.949	229.197	238.660
Total:	Quantity	1,247	697	773	-	773	520	752	1,157	1,193
Secondary Distribution	Total Obligation Authority	245.485	142.794	190.325	-	190.325	137.638	167.949	229.197	238.660

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

0648CC0007 / Javelin (AAWS-M) System Summary

Assault Missile Sys

Program Elements for Code B Items: N/A

Other Related Program Elements: 0604611A

Line Item MDAP/MAIS Code: 280

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

	Exhibits Schedule		,		Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	H06102 / JAVELIN (AAWS-M)	P-5a, P-21			31,400 / 5,110.934	1,112 / 222.985	697 / 142.794	763 / 165.355	- / -	763 / 165.355
P-5	H06103 / Javelin Lightweight Command Launch Unit (CLU)	P-5a			- / -	135 / 22.500	- / -	10 / 24.970	- / -	10 / 24.970
P-40	Total Gross/Weapon System Cost				31,400 / 5,110.934	1,247 / 245.485	697 / 142.794	773 / 190.325	- 1 -	773 / 190.325

^{*}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:

H06102 FY2021 Base procurement dollars in the amount of \$165.355 million supports the production of 763 missiles and the non-recurring expenses for the G-model production cut-in. H06103 FY2021 Base procurement dollars in the amount of \$24.970 million supports initial production facilitization and low-rate initial production of 10 Lightweight CLUs.

The estimated missile unit prices for FY21 and prior are based on combined United States Army, other services, and FMS procurements of 850 missile per year.

The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or foreign military sales to increase the Army procurement of Javelin missiles and/or Lightweight CLUs, and/or address obsolescence, modernization, cost reduction, and production initiatives.

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-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:

2032A / 02 / 30

Date: February 2020

Item Number / Title [DODIC]:

0648CC0007 / Javelin (AAWS-M) System Summary

H06102 / JAVELIN (AAWS-M)

MDAP/MAIS Code:

* ***						
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	31,400	1,112	697	763	-	763
Gross/Weapon System Cost (\$ in Millions)	5,110.934	222.985	142.794	165.355	-	165.355
Less PY Advance Procurement (\$ in Millions)	100.622	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	5,010.312	222.985	142.794	165.355	-	165.355
Plus CY Advance Procurement (\$ in Millions)	100.622	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	5,110.934	222.985	142.794	165.355	-	165.355
(The following Resource Summary rows are for informati	onal purposes only. The cor	responding budget request	s are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	162.769	200.526	204.869	216.717	-	216.717

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

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

	P	rior Years	5		FY 2019			FY 2020		FY	' 2021 Bas	se	FY	2021 OC	0	FY	2021 Tot	.al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost	<u> </u>	'					· · · · · · · · · · · · · · · · · · ·									· · · · · ·	'	
Recurring Cost																		
All Up Round ^(†)	102.884	30,981	3,187.449	143.794	1,161	166.945	177.565	672	119.324	175.203	763	133.680	-	-	-	175.203	763	133.6
Engineering Services	-	-	164.051	-	-	7.396	-	-	8.121	-	-	8.248	-	-	-	-	-	8.2
Engineering Change Orders	-	-	11.604	-	-	0.136	-	-	1.008	-	-	0.101	-	-	-	-	-	0.1
Acceptance Testing	-	-	58.200	-	-	1.023	-	-	1.043	-	-	1.161	-	-	-	-	-	1.10
Production Engineering	-	-	113.312	-	-	4.336	-	-	4.837	-	-	4.934	-	-	-	-	-	4.9
Publications/Technical Data	-	-	2.760	-	-	0.076	-	-	0.078	-	-	0.079	-	-	-	-	-	0.0
CLU Retrofits	160.923	520	83.680	-	-	39.149	170.000	25	4.250	-	-	-	-	-	-	-	-	
Advanced Procurement	-	-	100.622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: Recurring Cost	-	-	3,721.678	-	-	219.061	-	-	138.661	-	-	148.203	-	-	-	-	-	148.2
Non Recurring Cost																		
IM Compliance	-	-	-	-	-	-	-	-	-	-	-	3.172	-	-	-	-	-	3.1
G-Model Production Facilitization	-	-	-	-	-	-	-	-	-	-	-	9.908	-	-	-	-	-	9.9
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	13.080	-	-	-	-	-	13.0
Subtotal: Flyaway Cost	-	-	3,721.678	-	-	219.061	-	-	138.661	-	-	161.283	-	-	-	-	-	161.28

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Exhibit P-5, Cost Analysis: PB 2021 Army

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]:

2032A / 02 / 30

0648CC0007 / Javelin (AAWS-M) System Summary

H06102 / JAVELIN (AAWS-M)

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

MDAP/MAIS Code:

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

	P	rior Years	5		FY 2019			FY 2020		FY	′ 2021 Bas	se	F	1 2021 OC	0	F	/ 2021 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Government Management	-	-	1,389.256	-	-	3.924	-	-	4.133	-	-	4.072	-	-	-	-	-	4.07
Subtotal: Support - Program Management Cost	-	-	1,389.256	-	-	3.924	-	-	4.133	-	-	4.072	-	-	-	-	-	4.07
Gross/Weapon System Cost	162.769	31,400	5,110.934	200.526	1,112	222.985	204.869	697	142.794	216.717	763	165.355	-	-	-	216.717	763	165.35

Remarks:

The estimated missile unit prices for FY21 and prior are based on combined United States Army, other services, and FMS procurements of 850 missile per year.

FY19 CLU Retrofit funds were used to execute a lifetime buy of materials no longer in production.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	1,112	697	763	-	763
	Total Obligation Authority	222.985	142.794	165.355	-	165.355
Total:	Quantity	1,112	697	763	-	763
Secondary Distribution	Total Obligation Authority	222.985	142.794	165.355	-	165.355

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Army Date: February 2020									
Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC									
2032A / 02 / 30	0648CC0007 / Javelin (AAWS-M) System Summary	H06102 / JAVELIN (AAWS-M)							

Cost Elements	000	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Revision	RFP Issue Date
All Up Round ^(†)		2019	JJV All Up Round / Tucson AZ Orlando FL	SS / FFP	AMCOM, Redstone Arsenal, AL	Sep 2019	Jul 2021	1,161	143.794	Y		Aug 2018
All Up Round ^(†)		2020	JJV All Up Round / Tucson AZ Orlando FL	SS / FFP	AMCOM, Redstone Arsenal, AL	Apr 2020	Feb 2022	672	177.565	Y		Aug 2018
All Up Round ^(†)		2021	JJV All Up Round / Tucson AZ Orlando FL	SS / FFP	AMCOM, Redstone Arsenal, AL	Apr 2021	Feb 2023	763	175.203	Y		Oct 2019

^(†) indicates the presence of a P-21

Remarks:

JJV: Javelin Joint Venture (includes Raytheon in Tucson, AZ and Lockheed Martin in Orlando, FL)

SS: Sole Source

FFP: Firm Fixed Price

AMCOM: Aviation and Missile Command

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	opri A / 0	iation / 02 / 30	Budge	t Acti	vity /	Budg	et Sı	ıb Ac	tivity							Title:	-M) S	ystem	n Sum	ımary							DOD AAWS			
			lements in Each)								Fiscal \	ear 2019											Fiscal Ye							В
M				ACCEPT PRIOR									(Calenda	r Year 20	19			1					Calen	dar Year	2020				L
FR	FY	SERVICE	PROC QTY	TO 1 OCT 2018	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	N C
All Up R											I	<u> </u>				1														
rior Yea	ars De	eliveries: 309	81																											
		ARMY	1,161	0	1,161												Α -	-	-	-	-	-	-	-	-	-	-	-	-	1,1
1 2	2019	MC ^(‡)	11	0	11											_	A -	-	-	-	-	-	-	-	-	-	-	-	-	
1 2	2019	NAVSEA (‡)	13	0	13	_										_	A -	-	-	-	-	-	-	-	-	-	-	-	-	
	2019		1,185	0	-											_	-	-	-	-	-	-	-	-	-	-	-	-	-	1,1
		ARMY	672	0																				Α -	-	-	-	-	-	6
		FMS ^(‡)	81	0																				A -	-	-	-	-	-	
		MC ^(‡)	97	0																				A -	-	-	-	-	-	
		Total	850	0																				-	-	-	-	-	-	8
1 2		ARMY	763	0																										7
1 2		MC ^(‡)	95	0																										8
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	1	2020	FMS (‡)	81	0	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	41	-	-	-	-	-	-	
	1		MC ^(‡)	97	0	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	59	-	-	-	
\dashv	1	2020	Total	850	0	850	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	96	97	71	71	71	64	64	64	2
	1	2021	ARMY	763	0	763							Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
	1	2021	MC ^(‡)	95	0	95							Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	,
	1	2021	Total	858	0	858							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
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м				ACCEPT PRIOR	BAL								C	alendar	ear 202	3								Calen	dar Year	2024			
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1 2		ARMY	1,161	1,161	0																								
1 2	2019	MC ^(‡)	11	11	0																								
1 2	2019	NAVSEA (‡)	13	13	0																								
-	2019		1,185	1,185	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_		ARMY	672	420	252	63	63	63	63																				
1 2		FMS (‡)	81	81	0	-	-	-	-																				
1 2	2020	MC ^(‡)	97	97	0	-	-	-	-																				
-	2020		850	598	252	63	63	63	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		ARMY	763	0		-	-	-	-	72	72	72	22	27	72	72	72	72	72	72	66								
\perp		MC ^(‡)	95	0		-	-	-	-	-	-	-	50	45	-	-	-	-	-	-	-								
1 1	2021	Total	858	0	858	-	-	-	-	72	72	72	72	72	72	72	72	72	72	72	66	-	-	-			-	-	-
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N J	D D	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N J	J L	A U G	S E P

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
2032A / 02 / 30	0648CC0007 / Javelin (AAWS-M) System Summary	H06102 / JAVELIN (AAWS-M)

		Produc	ction Rates (Each	/ Year)	Procurement Leadtime (Months)								
MFR						Init	ial		Reorder				
Ref #	Manufacturer Name - Location	MSR For 2021	1-8-5 For 2021	MAX For 2021	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	JJV All Up Round - Tucson AZ Orlando FL	850	2,100	6,480	11	3	23	26	6	3	29	32	

^(‡) 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 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 02 / 30

P-1 Line Item Number / Title:
0648CC0007 / Javelin (AAWS-M) System Summary

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

MDAP/MAIS Code:

Date: February 2020

Item Number / Title [DODIC]:
H06103 / Javelin Lightweight Command
Launch Unit (CLU)

, , , , , , , , , , , , , , , , , , , ,						
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	135	-	10	-	10
Gross/Weapon System Cost (\$ in Millions)	-	22.500	-	24.970	-	24.970
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	22.500	-	24.970	-	24.970
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	22.500	-	24.970	-	24.970
(The following Resource Summary rows are for informa	tional purposes only. The cor	rresponding budget requests	s are documented elsewhe	re.)		1
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	_	166 667		2 497 000	_	2 497 000

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

	F	rior Years	5		FY 2019			FY 2020		FY	′ 2021 Bas	e	FY	/ 2021 OC	0	FY 2021 Total		
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost													1		1			
Recurring Cost																		
Light Weight CLU Production ^(†)	-	-	-	-	-	-	-	-	-	418.000	10	4.180	-	-	-	418.000	10	4.1
Engineering Services	-	-	-	-	-	-	-	-	-	-	-	1.377	-	-	-	-	-	1.3
Engineering Change Orders	-	-	-	-	-	-	-	-	-	-	-	0.004	-	-	-	-	-	0.0
Acceptance Testing	-	-	-	-	-	-	-	-	-	-	-	0.400	-	-	-	-	-	0.4
CLU Retrofits (Block 0 to Block 1)	-	-	-	-	-	22.500	-	-	-	-	-	-	-	-	-	-	-	
Fielding	-	-	-	-	-	-	-	-	-	-	-	0.173	-	-	-	-	-	0.1
Training Devices	-	-	-	-	-	-	-	-	-	-	-	0.871	-	-	-	-	-	0.8
Subtotal: Recurring Cost	-	-	-	-	-	22.500	-	-	-	-	-	7.005	-	-	-	-	-	7.0
Non Recurring Cost					· ·				`						,			
Initial Production Facilitization	-	-	-	-	-	-	-	-	-	-	-	17.965	-	-	-	-	-	17.9
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	17.965	-	-	-	-	-	17.9
Subtotal: Flyaway Cost	-	-	-	-	-	22.500	-	-	-	-	-	24.970	-	-	-	-	-	24.9
Gross/Weapon System Cost	-	-	-	166.667	135	22.500	-	-	-	2,497.000	10	24.970	-	-	-	2,497.000	10	24.9

Remarks:

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Exhibit P-5, Cost Analysis: PB 2021 Army	Date: February 2020	
	P-1 Line Item Number / Title: 0648CC0007 / Javelin (AAWS-M) System Summary	Item Number / Title [DODIC]: H06103 / Javelin Lightweight Command Launch Unit (CLU)

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

MDAP/MAIS Code:

H06103 FY2021 Base procurement dollars in the amount of \$24.970 million supports initial production facilitization and low-rate initial production of 10 Lightweight CLUs.

Lightweight CLU unit prices will be reduced significantly once full-rate production in achieved, and will be further reduced by combining Army procurement quantities with other U.S. services and foreign military sales quantities.

FY19 CLU Retrofit funds were used to execute a lifetime buy of materials no longer in production.

Secondar	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	
Army	Quantity	135	-	10	-	10
	Total Obligation Authority	22.500	-	24.970	-	24.970
Total:	Quantity	135	-	10	=	10
Secondary Distribution	Total Obligation Authority	22.500	-	24.970	-	24.970

^(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2021 A	Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30	P-1 Line Item Number / Title: 0648CC0007 / Javelin (AAWS-M) System Summary	Item Number / Title [DODIC]: H06103 / Javelin Lightweight Command Launch Unit (CLU)		

Cost Elements	0 C 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
Light Weight CLU Production		2021	JJV Lightweight CLU / Tucson AZ Orlando FL	SS / FFP	AMCOM, Redstone Arsenal AL	Jun 2021	Jun 2023	10	418.000	N		Oct 2019

Remarks:

JJV: Javelin Joint Venture (includes Raytheon in Tucson, AZ and Lockheed Martin in Orlando, FL)

SS: Sole Source FFP: Firm Fixed Price

AMCOM: Aviation and Missile Command

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

2104C59300 / TOW 2 System Summary

Assault Missile Sys

occor for 2 cyclem cammary

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	172,869	1,228	1,460	1,405	-	1,405	774	1,453	1,729	1,657	-	182,575
Gross/Weapon System Cost (\$ in Millions)	3,511.267	119.062	127.907	131.574	-	131.574	90.708	153.176	178.104	176.010	-	4,487.808
Less PY Advance Procurement (\$ in Millions)	187.649	19.949	19.949	10.500	-	10.500	-	-	-	-	-	238.047
Net Procurement (P-1) (\$ in Millions)	3,323.618	99.113	107.958	121.074	-	121.074	90.708	153.176	178.104	176.010	-	4,249.761
Plus CY Advance Procurement (\$ in Millions)	207.598	19.949	10.500	-	-	-	-	-	-	-	-	238.047
Total Obligation Authority (\$ in Millions)	3,531.216	119.062	118.458	121.074	-	121.074	90.708	153.176	178.104	176.010	-	4,487.808
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	budget request:	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	- [-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	20.312	96.956	87.608	93.647	-	93.647	117.194	105.421	103.010	106.222	-	24.581

Description:

TOW missiles (BGM-71 Series) are combat proven munitions that provide heavy anti-armor/assault capability to the Army's Infantry Brigade Combat Teams (IBCT), Stryker Brigade Combat Teams (SBCT) and Armor Brigade Combat Teams (ABCT). TOW missiles continue to be used as the weapon of choice in precision combat engagements. TOW missiles are also the primary heavy anti-armor/ assault missile for the U.S. Marine Corps (USMC) and more than 43 allied nations. Warfighters also employ TOW missiles against buildings and field fortifications, taking advantage of the missile's precision assault capabilities.

The TOW Weapon System includes the ITAS launcher, TOW missiles, and associated tactical training aids/devices. The ITAS is a combat proven TOW missile launcher that provides long-range, lethal anti-armor and precision assault fires capability for Active, Reserve, and National Guard component Infantry and SBCT across a spectrum of operational environments. The USMC employs the TOW missile from its ITAS derived M41A7 Saber launchers, ATGM vehicles, and AH-1W Cobra helicopters.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	1,228	1,460	1,405	-	1,405	774	1,453	1,729	1,657
	Total Obligation Authority	119.062	118.458	121.074	-	121.074	90.708	153.176	178.104	176.010
Total:	Quantity	1,228	1,460	1,405	-	1,405	774	1,453	1,729	1,657
Secondary Distribution	Total Obligation Authority	119.062	118.458	121.074	-	121.074	90.708	153.176	178.104	176.010

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

2104C59300 / TOW 2 System Summary

Assault Missile Sys

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

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

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C59403 / TOW Family of Missiles	P-5a, P-21			172,869 / 3,511.267	1,228 / 119.062	1,460 / 127.907	1,405 / 131.574	- / -	1,405 / 131.574
P-40	Total Gross/Weapon System Cost				172,869 / 3,511.267	1,228 / 119.062	1,460 / 127.907	1,405 / 131.574	- 1 -	1,405 / 131.574

^{*}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:

FY21 funding in the amount of \$121.074 million procures 905 TOW 2B Aero and 500 TOW Bunker Buster missiles, supports the TOW Missile combat inventory at levels required by the US Army's Total Munitions Requirement for FY 24, and is the final year of the FY17-21 Multi-year contract.

The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or foreign military sales to increase the Army procurement of TOW missiles and to mitigate safety and obsolescence issues.

IAW Section 1815 of the FY08 NDAA, this item is necessary for use by the active components and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses and providing military support to civil authorities.

The FY21 Army TOW 2B missile unit price estimate assumes a total of 1,198 USMC and FMS missiles as follows:

FY 21 USMC:

TOW 2A/2A Practice: 448

FY 21 FMS:

TOW 2B Aero: 500 TOW 2A: 250

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Exhibit P-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:

2032A / 02 / 30

Date: February 2020

Item Number / Title [DODIC]:

2104C59300 / TOW 2 System Summary

C59403 / TOW Family of Missiles

ID Code (A=Service Ready, B=Not Service Ready):		M	DAP/MAIS Code:			
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	172,869	1,228	1,460	1,405	-	1,405
Gross/Weapon System Cost (\$ in Millions)	3,511.267	119.062	127.907	131.574	-	131.574
Less PY Advance Procurement (\$ in Millions)	187.649	19.949	19.949	10.500	-	10.500
Net Procurement (P-1) (\$ in Millions)	3,323.618	99.113	107.958	121.074	-	121.074
Plus CY Advance Procurement (\$ in Millions)	207.598	19.949	10.500	-	-	-
Total Obligation Authority (\$ in Millions)	3,531.216	119.062	118.458	121.074	-	121.074
(The following Resource Summary rows are for informati	ional purposes only. The cor	responding budget reques	ts are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	20.312	96.956	87.608	93.647	-	93.647

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

	P	rior Years	3		FY 2019			FY 2020		FY	' 2021 Bas	e	FY	′ 2021 OC	0	FY	' 2021 Tota	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Flyaway Cost																		
Recurring Cost																		
Missile Contract ^(†)	19.860	172,404	3,423.943	86.722	1,228	106.495	78.455	1,460	114.545	79.873	1,405	112.222	-	-	-	79.873	1,405	112.2
Subtotal: Recurring Cost	-	-	3,423.943	-	-	106.495	-	-	114.545	-	-	112.222	-	-	-	-	-	112.2
Non Recurring Cost										,								
Counter Active Protection System (CAPS) Obsolescence	-	-	-	-	-	-	-	-	-	-	-	4.725	-	-	-	-	-	4.72
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	4.725	-	-	-	-	-	4.7
Subtotal: Flyaway Cost	-	-	3,423.943	-	-	106.495	-	-	114.545	-	-	116.947	-	-	-	-	-	116.9
Support - Acceptance Testing	Cost																	
Acceptance Test	-	-	12.934	-	-	4.557	-	-	4.650	-	-	4.743	-	-	-	-	-	4.7
Subtotal: Support - Acceptance Testing Cost	-	-	12.934	-	-	4.557	-	-	4.650	-	-	4.743	-	-	•	-	-	4.7
Support - Program Manageme	ent Cost																	
Government Management	-	-	47.993	-	-	5.285	-	-	5.933	-	-	6.120	-	-	-	-	-	6.12
Subtotal: Support - Program Management Cost	-	-	47.993	-	-	5.285	-	-	5.933	-	-	6.120	-	-	-	-	-	6.1
Support - System Engineering	g Cost																	
System Engineering	-	-	26.397	-	-	2.725	-	-	2.779	-	-	3.764	-	-	-	-	-	3.70
Subtotal: Support - System Engineering Cost	-	-	26.397	-	-	2.725	-	-	2.779	-	-	3.764	-	-	-	-	-	3.7

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LI 2104C59300 - TOW 2 System Summary Army

Exhibit P-5, Cost Analysis: PB 2021 Army

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]:

2032A / 02 / 30

2104C59300 / TOW 2 System Summary

C59403 / TOW Family of Missiles

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

MDAP/MAIS Code:

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

	F	Prior Years	3		FY 2019			FY 2020		FY	/ 2021 Bas	se	F	Y 2021 OC	0	F	/ 2021 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	20.312	172,869	3,511.267	96.956	1,228	119.062	87.608	1,460	127.907	93.647	1,405	131.574	-	-	-	93.647	1,405	131.574

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

	F	Prior Years	\$		FY 2019			FY 2020		FY	/ 2021 Bas	se	F	/ 2021 OC	:0	FY	/ 2021 Tota	al
Cost Element Breakout	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Missile Contract	19.860	172,404	3,423.943	86.722	1,228	106.495	78.455	1,460	114.545	79.873	1,405	112.222	-	-	-	79.873	1,405	112.222
All configurations (FY 19 and prior)	19.860	172,404	3,423.943	86.722	1,228	106.495	-	-	-	-	-	-	-	-	-	-	-	-
2B Aero	-	-	-	-	-	-	90.695	960	87.067	93.640	905	84.744	-	-	-	93.640	905	84.744
Bunker Buster	-	-	-	-	-	-	54.956	500	27.478	54.956	500	27.478	-	-	-	54.956	500	27.478

Remarks:

The Multi-Year (MY) portion of the TOW Contract (FY17-21) includes only the TOW Bunker Buster variant, with a constant unit price of \$54,956.

TOW 2B Aero missiles are procured as single year options under the TOW Five-Year MY Contract (FY17-21). The estimated FY21 TOW 2B Aero unit price increases from FY20 to FY21 due to a budget reduction resulting in fewer missiles procured.

USMC is currently procuring the TOW 2A Practice missile variant which has a different unit cost than the Army's TOW 2B Aero and TOW Bunker Buster variants.

The FY21 Army TOW 2B missile unit price estimate assumes a total of 1,198 USMC and FMS missiles as follows:

FY 21 USMC:

TOW 2A/2A Practice: 448

FY 21 FMS:

TOW 2B Aero: 500 TOW 2A: 250

Seconda	ry Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	1,228	1,460	1,405	-	1,405
Total Obligation Authority 119.062 118.458 121.074 Total: Quantity 1,228 1,460 1,405	-	121.074				
Total:	Quantity	1,228	1,460	1,405	-	1,405
Secondary Distribution	Total Obligation Authority	119.062	118.458	121.074	-	121.074

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Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30	P-1 Line Item Number / Title: 2104C59300 / TOW 2 System Summary	Item Number / Title [DODIC]: C59403 / TOW Family of Missiles
ID Code (A=Service Ready, B=Not Service Ready):	MDAP/MAIS Code:	
2032A / 02 / 30	2104C59300 / TOW 2 System Summary	C59403 / TOW Family of Missiles

LI 2104C59300 - TOW 2 System Summary Army

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Exhibit P-5a, Procurement History and Planning: PB 2021	Army	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30		Item Number / Title [DODIC]: C59403 / TOW Family of Missiles

Cost Elements	0 C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Revision	RFP Issue Date
Missile Contract ^(†)		2019	Raytheon / Tucson	SS / FPIF	AMCOM, Redstone Arsenal, AL	May 2019	Sep 2020	1,228	86.722	Υ		
Missile Contract ^(†)		2020	Raytheon / Tucson	SS / FPIF	AMCOM, Redstone Arsenal, AL	Mar 2020	Jul 2021	1,460	78.455	Y		
Missile Contract ^(†)		2021	Raytheon / Tucson	SS / FPIF	AMCOM, Redstone Arsenal, AL	Mar 2021	Jul 2022	1,405	79.873	Y		

^(†) indicates the presence of a P-21

Remarks

Raytheon is currently the only industry source that is both facilitized and qualified to produce TOW missiles.

AMCOM Aviation and Missile Command

SS Sole Source

FPIF Fixed Price Incentive Firm Target

MY Multi-Year

			P-21, Pr							-														Date	: Feb	ruary	2020)			
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				lements in Each)								Fiscal Y	ear 2019)										Fiscal Y	ear 2020						
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+	-		ARMY	1,228	0									Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	_
	1	2019	FMS ^(‡)	787	0	787								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1	2019	MC ^(‡)	704	0	704								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	\rightarrow	2019	Total	2,719	0	2,719								-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	2,
1	1	2020	ARMY	1,460	0	1,460																		Α -	-	-	-	-	-	-	1,
	1	2020	FMS ^(‡)	750	0	750																		Α -	-	-	-	-	-	-	
	1	2020	MC ^(‡)	500	0	500																		Α -	-	-	-	-	-	-	
	1	2020	Total	2,710	0	2,710																		-	-	-	-	-	-	-	2,
1	1	2021	ARMY	1,405	0	1,405																									1,
	1	2021	FMS ^(‡)	750	0	750																									
	1	2021	MC ^(‡)	448	0	448																									
T	1	2021	Total	2,603	0	2,603																									2,
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LI 2104C59300 - TOW 2 System Summary Army

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1	2019	FMS ^(‡)	787	0	787	-	87	100	100	100	100	75	75	75	75															
1	2019	MC ^(‡)	704	0	704	-	-	-	-	-	-	125	225	225	129															
1	2019		2,719	175		175	262	275	275	275	278	200	300	300	204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	2020	ARMY	1,460	0	'	-	-	-	-	-	-	-	-	-	125	175	175	175	175	175	175	175	110	-	-	-				_
1		FMS ^(‡)	750	0	750	-	-	-	-	-	-	-	-	-	-	50	50	75	75	75	75	75	75	75	75	50				
1	2020	MC ^(‡)	500	0	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	157	175	168				
1		Total	2,710	0	_,	-	-	-	-	-	-	-	-	-	125	225	225	250	250	250	250	250	185	232	250	218	-	-	-	_
1	-	ARMY	1,405	0	,						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	175	175	-
1		FMS ^(‡)	750	0							Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1		MC ^(‡)	448	0	-						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<u> </u>
1	2021	Total	2,603	0	2,603			1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	175	175	2,0
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		ACCEPT							riscai te	ar 2023	C	alendar	Year 202	23							riscai ti		ıdar Year	2024			
		PRIOR TO 1	BAL DUE	0	N	D	J	F	м	Α	м	J	J	A	s	0	N	D	J	F	М	A	м	J	J	Α	s
SERVICE	PROC QTY	OCT 2022	AS OF 1 OCT	C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	S E P	C T	0 V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P
ntract	417				-	_																	-				
Deliveries: 172	404																										
19 ARMY	1,228	1,228	0																								
19 FMS ^(‡)	787	787	0																								
19 MC ^(‡)	704	704	0																								
19 Total	2,719	2,719	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ARMY	1,460	1,460	0																								
20 FMS ^(‡)	750	750	0																								
20 MC (‡)	500	500	0																								
20 Total	2,710	2,710	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ARMY	1,405	525	880	175	175	175	175	180	-	-	-	-															
21 FMS ^(‡)	750	0	750	-	-	-	125	125	175	125	100	100															
21 MC ^(‡)	448	0	448	-	-	-	-	-	-	150	150	148															
21 Total	2,603	525	2,078	175	175	175	300	305	175	275	250	248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
							J A			A P		J	J U									A P			J	A U	S E
				Т	٧	С	N	В	R	R	Υ	N	L	G	P	Т	٧	С	N	В	R	R	Y	N	L	G	P
199199199199199199199199199199199199199	ract Deliveries: 1724 D	Peliveries: 172404 Pelive	Peliveries: 172404 Pelive	Peliveries: 172404 Pelive	Paract Deliveries: 172404 ARMY 1,228 1,228 0 FMS (‡) 787 787 0 MC (‡) 704 704 0 Total 2,719 2,719 0 - ARMY 1,460 1,460 0 FMS (‡) 750 750 0 MC (‡) 500 500 0 Total 2,710 2,710 0 - ARMY 1,405 525 880 175 FMS (‡) 750 0 750 - MC (‡) 750 0 750 - MC (‡) 750 0 750 - TOTAL 2,710 448 0 448 - TOTAL 2,603 525 2,078 175 OC	Paract Deliveries: 172404 ARMY 1,228 1,228 0 FMS (‡) 787 787 0 MC (‡) 704 704 0 Total 2,719 2,719 0 ARMY 1,460 1,460 0 MC (‡) 500 500 0 MC (‡) 500 500 0 Total 2,710 2,710 0 ARMY 1,405 525 880 175 175 MC (‡) 448 0 448 Total 2,603 525 2,078 175 175 N C 0	Paract Deliveries: 172404 ARMY 1,228 1,228 0 FMS (‡) 787 787 0 MC (‡) 704 704 0 ARMY 1,460 1,460 0 FMS (‡) 750 750 0 MC (‡) 500 500 0 Total 2,710 2,710 0	Paract Deliveries: 172404 2	Peliveries: 172404 Peliveries: 172404 Period RMY	Peliveries: 172404 Parametric Market	Peliveries: 172404 Peliveries: 172404 Period RMY	Peliveries: 172404 Peliveries: 172404 Period RMY	Deliveries: 172404 2	Peliveries: 172404 2	Tract Deliveries: 172404	Tract Deliveries: 172404	Part Part	Part Part	Peliveries: 172404 ARMY	Part	Part	Table Trace	Part Part				

LI 2104C59300 - TOW 2 System Summary Army

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Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
		Item Number / Title [DODIC]:
2032A / 02 / 30	2104C59300 / TOW 2 System Summary	C59403 / TOW Family of Missiles

						,	,				,	
		Produc	ction Rates (Each	/ Year)				Procurement Le	adtime (Months)			
MFF	8			lni	tial			Reo	rder			
Ref	Manufacturer				ALT	ALT	Manufacturing	Total	ALT	ALT	Manufacturing	Total
#	Name - Location	MSR For 2021	1-8-5 For 2021	MAX For 2021	Prior to Oct 1	After Oct 1	PLT	After Oct 1	Prior to Oct 1	After Oct 1	PLT	After Oct 1
1	Raytheon - Tucson	2,100	7,200	16,800	3	2	16	18	3	2	16	18

Remarks:

Multiyear contracts do not follow the Production Lead Time shown for annual year contracts.

10 U.S. Code #2431 and DoD Financial Mgt Reg Vol 2B, Ch4 mandate Production Rates be defined in terms of "budget year."

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 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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^(‡) 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.

Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2021 Army

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

Assault Missile Sys

2104C59300 / TOW 2 System Summary

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

P-1 Line Item Number / Title:

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Gross/Weapon System Cost (\$ in Millions)	207.598	19.949	10.500	-	-	-	-	-	-	-	-	238.047
Net Procurement (P-1) (\$ in Millions)	207.598	19.949	10.500	-	-	-	-	-	-	-	-	238.047
Total Obligation Authority (\$ in Millions)	207.598	19.949	10.500	-	-	-	-	-	-	-	-	238.047

Description:

TOW missiles (BGM-71 Series) are combat proven munitions that provide heavy anti-armor/assault capability to the Army's Infantry Brigade Combat Teams (IBCT), Stryker Brigade Combat Teams (SBCT) and Armor Brigade Combat Teams (ABCT). TOW missiles continue to be used as the weapon of choice in precision combat engagements. TOW missiles are also the primary heavy anti-armor/ assault missile for the U.S. Marine Corps (USMC) and more than 43 allied nations. Warfighters also employ TOW missiles against buildings and field fortifications, taking advantage of the missile's precision assault capabilities.

The TOW Weapon System includes the ITAS launcher, TOW missiles, and associated tactical training aids/devices. The ITAS is a combat proven TOW missile launcher that provides long-range, lethal anti-armor and precision assault fires capability for Active, Reserve, and National Guard component Infantry and SBCT across a spectrum of operational environments. The USMC employs the TOW missile from its ITAS derived M41A7 Saber launchers, ATGM vehicles, and AH-1W Cobra helicopters.

Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2021 Army

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

Assault Missile Sys

2104C59300 / TOW 2 System Summary

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

P-1 Line Item Number / Title:

Line Item MDAP/MAIS Code: N/A

	Exhibits Schedule			Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-10	C59403 / TOW Family of Missiles			172,869 / 207.598	1,228 / 19.949	1,460 / 10.500	1,405 / -	- / -	1,405 / -
P-40	Total Gross/Weapon System Cost			172,869 / 207.598	1,228 / 19.949	1,460 / 10.500	1,405 / -	- 1 -	1,405 / -

^{*}Title represents the P-10 Title for Advance Procurement.

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

Justification:

FY21 is the last year of the FY17-21 Multi-year contract and has no advanced procurement.

The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or foreign military sales to increase the Army procurement of TOW missiles, and to mitigate safety and obsolescence.

IAW Section 1815 of the FY08 NDAA, this item is necessary for use by the active components and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

The FY21 Army TOW 2B missile unit price estimate assumes a total of 1,198 USMC and FMS missiles as follows:

FY 21 USMC:

TOW 2A/2A Practice: 448

FY 21 FMS:

TOW 2B Aero: 500 TOW 2A: 250

Exhibit P-10, Advance Procurement	Requirements Analysi	s (page 1 - I	Budget Funding Justific	cation): PB 2021 Army	Date: February 202	0
Appropriation / Budget Activity / Bud 2032A / 02 / 30	lget Sub Activity:		em Number / Title: 00 / TOW 2 System Sum	mary	P-5 Number / Title C59403 / TOW Far	
First System (2021) Award Date: December 2017	First System (2021) Compl July 2018	etion Date:		Interval Between Sys 12 Months	tems:	
TOW Family of Missiles	Production L		Prior Years (Each)	FY 2019 (Each)	FY 2020 (Each)	FY 2021 (Each)
Quantity			172,869	1,228	1,460	1,405
Cost Elements	When Rec		Prior Years (\$ M)	FY 2019 (\$ M)	FY 2020 (\$ M)	FY 2021 (\$ M)
Other	·		·	<u> </u>	<u>.</u>	
Warhead		14	94.342	7.942	6.923	-
Launch Motor		14	11.399	0.838	0.730	-
Flight Motor		12	3.299	0.158	0.138	-
2B Sensor		18	57.143	7.902	-	-
Gyro		13	19.047	1.433	1.249	-
Flight Motor Case Kit		10	4.319	0.325	0.283	-
Control Surface Actuator		14	11.271	0.848	0.739	-
Beacon Shutter Actuator		11	6.778	0.503	0.438	-
Total: Other			207.598	19.949	10.500	-
Total Advance Procurement/Obligation Autho	rity		207.598	19.949	10.500	-

Exhibit P-10, Advance Procurement Requirements Analysis	(page 2 - Budget Funding Justification): PB 2021 Army	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	P-5 Number / Title:
2032A / 02 / 30	2104C59300 / TOW 2 System Summary	C59403 / TOW Family of Missiles

				FY 2	2021		
Cost Elements	QPA (Each)	Production Leadtime (Months)	Unit Cost	Contract Forecast Date	2021 Qty (Each)	For FY	Total Cost Request (\$ M)
Other							
Warhead	-						-
Launch Motor	-						-
Flight Motor	-						-
2B Sensor	-						-
Gyro	-						-
Flight Motor Case Kit	-						-
Control Surface Actuator	-						-
Beacon Shutter Actuator	-						-
Total: Other							-
Total Advance Procurement/Obligation Authority							-

Description:

FY21 is the last year of the FY17-21 Multi-year contract and has no advanced procurement.

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

6005C64400 / Guided MLRS Rocket (GMLRS)

Assault Missile Sys

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

Program Elements for Code B Items: N/A

Other Related Program Elements: 0603778A, 0205778A

Line Item MDAP/MAIS Code: 260

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	34,546	7,668	8,211	5,384	904	6,288	5,478	6,564	6,312	5,808	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	4,367.629	975.507	1,176.406	850.157	127.015	977.172	808.559	984.484	990.005	960.079	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	4,367.629	975.507	1,176.406	850.157	127.015	977.172	808.559	984.484	990.005	960.079	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	4,367.629	975.507	1,176.406	850.157	127.015	977.172	808.559	984.484	990.005	960.079	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	budget requests	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	126.429	127.218	143.272	157.904	140.503	155.403	147.601	149.982	156.845	165.303	Continuing	Continuing

Description:

Guided Multiple Launch Rocket System (GMLRS) rockets are surface-to-surface artillery rockets fired from the Multiple Launch Rocket System (MLRS) and High Mobility Artillery Rocket System (HIMARS) launchers. GMLRS rockets provide 24/7, all-weather precision fires to engage both area and point targets at short, medium, and long ranges. The U.S. Marine Corps also procures GMLRS rockets through the Army project office.

The GMLRS Program currently consists of multiple variants: GMLRS Dual Purpose Improved Conventional Munition (DPICM) is a cluster munition that replaced the shorter range MLRS rockets to engage area or imprecisely located targets. GMLRS DPICM Production was terminated in response to the June 2008 Department of Defense (DoD) Cluster Munitions Policy. GMLRS Unitary utilizes a 200 pound high explosive warhead to engage point targets with limited collateral damage. GMLRS Alternative Warhead (AW) was developed as a non-cluster munition to engage the same target sets as DPICM. GMLRS Unitary and AW are currently in full rate production. An Engineering Change Proposal (ECP) is currently in process to extend the range of GMLRS rockets.

				FY 2021	FY 2021	FY 2021				
Secondar	y Distribution	FY 2019	FY 2020	Base	осо	Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	7,668	8,211	5,384	904	6,288	5,478	6,564	6,312	5,808
	Total Obligation Authority	975.507	1,176.406	850.157	127.015	977.172	808.559	984.484	990.005	960.079
Total:	Quantity	7,668	8,211	5,384	904	6,288	5,478	6,564	6,312	5,808
Secondary Distribution	Total Obligation Authority	975.507	1,176.406	850.157	127.015	977.172	808.559	984.484	990.005	960.079

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

6005C64400 / Guided MLRS Rocket (GMLRS)

Assault Missile Svs

Program Elements for Code B Items: N/A

Other Related Program Elements: 0603778A, 0205778A

Line Item MDAP/MAIS Code: 260

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

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C65404 / GUIDED MLRS ROCKET (GMLRS)	P-5a, P-21			34,522 / 4,363.463	7,668 / 975.507	8,211 / 1,175.915	5,384 / 849.661	904 / 127.015	6,288 / 976.676
P-40a	C65406 / GMLRS Training Devices				24 / 4.166	- / -	- / 0.491	- / 0.496	- / -	- / 0.496
P-40	Total Gross/Weapon System Cost				34,546 / 4,367.629	7,668 / 975.507	8,211 / 1,176.406	5,384 / 850.157	904 / 127.015	6,288 / 977.172

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

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

Justification:

The FY 2021 Base procurement dollars in the amount of \$850.157 million support the procurement of 5,384 rockets. FY 2021 OCO procurement dollars in the amount of \$127.015 million support the acquisition of 904 GMLRS rockets for the United States Army. \$0.496 million of Base procurement dollars support the acquisition of equipment and support to ensure Guided Multiple Launch Rocket Common Training Device alignment with the production configuration. The actual missile buy quantities are subject to the mix between AW and Unitary warheads, standard versus extended range configurations, replacement pod cut-in, and replacement pod/Extended Range ECP tooling capacity ramp-up. In FY 2021, the Army requires 618 Unitary and 5,670 Alternative Warhead variants in support of the Army's Total Munitions Requirement (TMR). TMR quantities are evaluated and adjusted annually. As of July, 2019, the TMR showed requirements for Unitary of 14,351 and for AW of 62,259.

GMLRS has benefited from the availability of 30 year old M-26 pods that are repurposed for current GMLRS production. Due to dwindling supply of these pods, procurement of replacement pods must begin around FY 2022. \$70 million of FY2021 funds are used to procure tooling and new production for these efforts.

The AAO is 140.004.

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

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Exhibit P-5, Cost Analysis: PB 2021 Army

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30

P-1 Line Item Number / Title:

126.397

Item Number / Title [DODIC]: C65404 / GUIDED MLRS ROCKET

140.503

6005C64400 / Guided MLRS Rocket (GMLRS)

(GMLRS)

157.812

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

MDAP/MAIS Code:

, , , , , , , , , , , , , , , , , , , ,						
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	34,522	7,668	8,211	5,384	904	6,288
Gross/Weapon System Cost (\$ in Millions)	4,363.463	975.507	1,175.915	849.661	127.015	976.676
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	4,363.463	975.507	1,175.915	849.661	127.015	976.676
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	4,363.463	975.507	1,175.915	849.661	127.015	976.676
(The following Resource Summary rows are for	informational purposes only. The corre	esponding budget requests	are documented elsewher	e.)	•	
Initial Spares (\$ in Millions)	-	-	-	-	-	-

127.218

143.212

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

Gross/Weapon System Unit Cost (\$ in Thousands)

	F	Prior Years	3		FY 2019			FY 2020		F	/ 2021 Bas	se	F	/ 2021 OC	0	F١	Y 2021 Tota	:al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost					'		,	'					'					
Recurring Cost																		
Tactical GMLRS Hardware ^(†)	109.928	34,546	3,797.566	122.689	7,668	940.782	139.097	8,211	1,142.126	139.130	5,384	749.078	139.102	904	125.748	139.126	6,288	874.8
Ind Maint/Init Prod Fac	-	-	116.722	-	-	4.857	-	-	4.954	-	-	70.000	-	-	-	-	-	70.0
Production Verification Testing	-	-	64.271	-	-	6.671	-	-	5.109	-	-	6.772	-	-	1.137	-	-	7.90
First Destination Transportation	-	-	5.328	-	-	1.053	-	-	1.140	-	-	0.773	-	-	0.130	-	-	0.9
Production Engineering Support	-	-	178.354	-	-	12.585	-	-	12.836	-	-	13.093	-	-	-	-	-	13.0
Spares	-	-	2.913	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	4,165.154	-	-	965.948	-	-	1,166.165	-	-	839.716	-	-	127.015	-	-	966.7
Subtotal: Flyaway Cost	-	-	4,165.154	-	-	965.948	-	-	1,166.165	-	-	839.716	-	-	127.015	-	-	966.7
Support - Engineering Change	e Proposals Co	st																
Engineering Change Proposals	-	-	111.429	-	-	6.035	-	-	6.156	-	-	6.279	-	-	-	-	-	6.27
Subtotal: Support - Engineering Change Proposals Cost	-	-	111.429	-	-	6.035	-	-	6.156	-	-	6.279	-		-	-	-	6.2
Support - Program Manageme	ent Cost																	
Government Management	-	-	86.880	-	-	3.523	-	-	3.594	-	-	3.666	-	-	-	-	-	3.66

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155.324

Exhibit P-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 02 / 30

P-1 Line Item Number / Title:
6005C64400 / Guided MLRS Rocket (GMLRS)

C65404 / GUIDED MLRS ROCKET (GMLRS)

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

MDAP/MAIS Code:

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

	F	Prior Years	\$		FY 2019			FY 2020		FY	′ 2021 Bas	se	FY	/ 2021 OC	0	FY	/ 2021 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)									
Subtotal: Support - Program Management Cost	-	-	86.880	-	-	3.523	-		3.594	-	-	3.666	-		-	-	-	3.666
Gross/Weapon System Cost	126.397	34,522	4,363.463	127.218	7,668	975.507	143.212	8,211	1,175.915	157.812	5,384	849.661	140.503	904	127.015	155.324	6,288	976.676

Remarks:

The Army fully transitions to Insensitive Munitions Propulsion System Motors (IMPS) for all rockets beginning in FY 2020. This transition, coupled with increased procurement of the more expensive AW variant to support the Army's TMR leads to an overall unit cost growth.

In FY 2021, it will be necessary to procure tooling for production of new pods and for ER GMLRS. \$70 million of FY 2021 funds are used to procure tooling for these efforts.

Costs for Engineering Change Proposals covers activities associated with resolving manufacturing-related changes that arise due to emerging statutory and regulatory requirements, planned and unplanned parts obsolescence, supply chain disruptions, cost reduction initiatives, quality improvement, and studies and investigations. Some of the currently known issues that must be resolved include obsolescence of certain components within the safe arm fuze, proximity sensor, guidance set, and motor material.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	7,668	8,211	5,384	904	6,288
	Total Obligation Authority	975.507	1,175.915	849.661	127.015	976.676
Total:	Quantity	7,668	8,211	5,384	904	6,288
Secondary Distribution	Total Obligation Authority	975.507	1,175.915	849.661	127.015	976.676

^(†) indicates the presence of a P-5a

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

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 02 / 30

P-1 Line Item Number / Title:
6005C64400 / Guided MLRS Rocket (GMLRS)

C65404 / GUIDED MLRS ROCKET (GMLRS)

	0			Method/Type or		Award	Date of First	Qty	Unit Cost	Specs Avail	Date Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$ K)	Now?	Available	Date
Tactical GMLRS Hardware ^(†)		2015	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS / FPIF	Aviation and Missile Command	Jun 2015	Jun 2016	450	125.576	N		Feb 2013
Tactical GMLRS Hardware ^(†)		2016	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS / FPIF	Aviation and Missile Command	May 2016	May 2017	1,572	138.800	N		Feb 2016
Tactical GMLRS Hardware ^(†)		2017	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS / FPIF	Aviation and Missile Command	May 2017	Jul 2018	2,970	112.270	N		Feb 2016
Tactical GMLRS Hardware ^(†)		2018	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS / FPIF	Aviation and Missile Command	Apr 2018	Aug 2019	6,528	151.746	N		Feb 2017
Tactical GMLRS Hardware ^(†)		2019	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS / FPIF	Aviation and Missile Command	Mar 2019	Aug 2020	7,668	122.689	N		Feb 2017
Tactical GMLRS Hardware ^(†)		2020	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS / FPIF	Aviation and Missile Command	Mar 2020	Aug 2021	8,211	139.097	N		Feb 2017
Tactical GMLRS Hardware ^(†)		2021	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS / FPIF	Aviation and Missile Command	Mar 2021	Aug 2022	6,288	139.126	N		May 2019

^(†) indicates the presence of a P-21

Remarks:

 $Lockheed\ Martin\ is\ currently\ the\ industry\ source\ that\ is\ both\ facilitized\ and\ qualified\ to\ produce\ the\ GMLRS\ rocket.$

FY19 and FY20 annual production contracts are options on the FY18 base contract.

FY21 annual production is planned to be an Indefinite Delivery Indefinite Quantity (IDIQ) contract type.

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^{*}Sole Source/Fixed Price Incentive Firm

^{**}Aviation and Missile Command, Redstone Arsenal, Alabama

Ex	hibit	P-21, Pro	oducti	on Sc	hedul	le: Pl	B 202	1 Arm	าy														Date	: Feb	ruary	2020				
		riation / 02 / 30	Budge	t Acti	vity /	Bud	get Sı	ub Ac	ctivity	/ ·						Title: ILRS I		t (GM	ILRS)	l			C65			Title ED M		NC]: ROCK	KET	
			lements in Each)								Fiscal	Year 201	5										Fiscal Ye	ear 2016						В
				ACCEPT										Calenda	Year 20	15								Calen	dar Year	2016		_		î
0 0	R	SERVICE	PROC QTY	PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U	A U G	S E P	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U	A U G	S E P	A N C E
Tac	tical GM	LRS Hardware	·																							,				
Prio	r Years	Deliveries: 230	26																											
	1 201	ARMY	450	0	450									Α -	-	-	-	-	-	-	-	-	-	-	-	42	42	42	36	28
	1 201	FMS ^(‡)	390	0	390									Α -	-	-	-	-	-	-	-	-	-	-	-	30	30	30	36	26
	1 201	MC (‡)	60	0	60									Α -	-	-	-	-	-	-	-	-	-	-	-	6	6	6	6	3
	1 201	_	900	0	900									-	-	-	-	-	-	-	-	-	-	-	-	78	78	78	78	58
	1 2016	ARMY	1,572	0	1,572										•										Α -	-	-	-	-	1,57
	1 2016	FMS (‡)	492	0	492																				Α -	-	-	-	-	49
	1 2016	6 MC ^(‡)	90	0	90																				Α -	-	-	-	-	9
	1 2010	5 Total	2,154	0	2,154																				-	-	-	-	-	2,15
	1 201	7 ARMY	2,970	0	2,970																					,				2,97
	1 201	7 FMS ^(‡)	60	0	60																									6
	1 201	7 MC ^(‡)	336	0	336																									33
	1 201	7 Total	3,366	0	3,366																									3,36
	1 2018	3 ARMY	6,528	0	6,528																									6,52
	1 2018	FMS (‡)	96	0	96																									9
	1 2018	MC (‡)	372	0	372																							_		37
	1 2018	_	6,996	0	6,996		_																							6,99
	1 2019	ARMY	7,668	0	7,668																							_		7,66
	1 2019	FMS (‡)	462	0	462																									46
\neg	1 2019	9 MC ^(‡)	222	0	222																									22
	1 2019	_	8,352	0	8,352																									8,35
	1 2020	ARMY	8,211	0	8,211																									8,2
	1 202	1 ARMY	6,288	0	6,288																									6,28
	1 202	1 FMS ^(‡)	612	0	612																									6
	1 202	1 MC ^(‡)	330	0	330																									33
1	1 202	I Total	7,230	0	7,230																									7,23
	,					O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U L	A U G	S E P	

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		P-21, Pro																						: Feb						
		riation / 1 02 / 30	Budge	t Acti	vity /	Budg	et Su	ıb Act	tivity:							Title: ₋RS F	locket	t (GML	.RS)					104 <i>I</i> ([DOD (LRS)		KET	
			ements n Each)							ı	Fiscal Ye	ar 2017											Fiscal Ye	ar 2018						إ
				ACCEPT									С	alendar \	ear 201	7								Calen	dar Year	2018				l
M F R		SERVICE	PROC QTY	PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	n n	A U G	S E P	1
actio	cal GM	LRS Hardware	'			<u> </u>		· ·	,	·	,							<u>'</u>												
rior '	Years	Deliveries: 2302	:6																											
1	201	5 ARMY	450	162	288	36	36	36	36	36	36	36	36																	
1	201	5 FMS ^(‡)	390	126	264	36	36	30	30	30	30	36	36																	L
1	201	5 MC ^(‡)	60	24	36	6	6	6	6	6	6	-	-																	
1	201	5 Total	900	312	588	78	78	72	72	72	72	72	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	201	6 ARMY	1,572	0	1,572	-	-	-	-	-	-	-	156	156	156	156	156	156	156	102	96	96	96	90						
1	201	6 FMS ^(‡)	492	0	492	-	-	-	-	-	-	-	36	36	36	42	42	42	42	42	42	48	42	42						
1	201	6 MC ^(‡)	90	0	90	-	-	-	-	-	-	-	12	12	12	6	6	6	6	6	6	6	6	6						
1	201	6 Total	2,154	0	2,154	-	-	-	-	- 1	-	-	204	204	204	204	204	204	204	150	144	150	144	138	-	-	-	-	-	
1	201	7 ARMY	2,970	0	2,970								Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	252	252	252	2
1	201	7 FMS ^(‡)	60	0	60								Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	60	-	-	
1	201	7 MC ^(‡)	336	0	336								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	24	24	24	
1	201	7 Total	3,366	0	3,366								-	-	-	-	-	-	-	-	-	-	-	-	-	-	336	276	276	2
1	201	8 ARMY	6,528	0	6,528																			Α -	-	-	-	-	-	6
1	201	8 FMS ^(‡)	96	0	96																			A -	-	-	-	-	-	
1	201	8 MC ^(‡)	372	0	372																			Α -	-	-	-	-	-	
1	201	8 Total	6,996	0	6,996																			-	-	-	-	-	-	6
1	201	9 ARMY	7,668	0	7,668																									7
1	201	9 FMS ^(‡)	462	0	462																									
1	201	9 MC ^(‡)	222	0	222																									
1	201	9 Total	8,352	0	8,352																									8
1	202	0 ARMY	8,211	0	8,211																									8
1	202	_	6,288	0	6,288	_																								6
1	202	1 FMS ^(‡)	612	0	612																									
1	202	1 MC ^(‡)	330	0	330																									
1	202	1 Total	7,230	0	7,230																									7
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J L	A U G	S E P	

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		P-21, Pro																						: Feb						
App 2032	ropr 2A /	riation / I 02 / 30	Budge	t Acti	vity /	Budg	et Su	ıb Act	tivity:		- 1	Line 5C644		-				t (GMI	_RS)					404 <i>I</i> ([DOD LRS F		KET	
	1	Cost El (Units i									Fiscal Ye	ear 2019											Fiscal Ye							
M D F				ACCEPT PRIOR TO 1	BAL DUE	0	N	D	J	F	м	A	м	alendar `	Year 201	19 A	s	0	N	D	J	F	М	Calend	dar Year M	2020 J		Α	s	+
C R	FY	SERVICE	PROC QTY	OCT 2018	AS OF 1 OCT	C T	0 V	E C	A N	E B	A R	P R	A Y	U N	Ü	Ü	E P	C T	0 V	E C	A N	E B	A R	P R	A Y	U N	Ü L	Ü G	E P	
Tactic	al GML	RS Hardware																												
Prior \	Years D	eliveries: 2302	6																											
1	2015	ARMY	450	450	0																									
1	2015	FMS (‡)	390	390	0																									
1	2015	MC ^(‡)	60	60	0																									
1	2015	Total	900	900	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- [-	T
1	2016	ARMY	1,572	1,572	0																									
1	2016	FMS (‡)	492	492	0																									
1	2016	MC ^(‡)	90	90	0																									
1	2016	Total	2,154	2,154	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\top
1	2017	ARMY	2,970	756	2,214	246	246	246	246	246	246	246	246	246											•		,			
1	2017	FMS (‡)	60	60	0	-	-	-	-	-	-	-	-	-																
1	2017	MC ^(‡)	336	72	264	24	30	30	30	30	30	30	30	30																
1	2017	Total	3,366	888	2,478	270	276	276	276	276	276	276	276	276	-	-	-	-	-	-	-	-	-	-	-	- 1	-	-	-	\top
1	2018	ARMY	6,528	0	6,528	-	-	-	-	-	-	-	-	-	-	546	546	546	546	546	546	546	546	540	540	540	540			
1	2018	FMS (‡)	96	0	96	-	-	-	-	-	-	-	-	-	-	12	12	12	12	6	6	6	6	6	6	6	6			
1	2018	MC ^(‡)	372	0	372	-	-	-	-	-	-	-	-	-	-	36	36	30	30	30	30	30	30	30	30	30	30			
1	2018	Total	6,996	0	6,996	-	-	-	-	-	-	-	-	-	-	594	594	588	588	582	582	582	582	576	576	576	576	- 1	-	+
1	2019	ARMY	7,668	0	7,668						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	642	642	2 6
1	2019	FMS (‡)	462	0	462	_					A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	36	3
1	2019	4.5	222	0	222						A -	-	-	-	_	-	-	-	-	-	-	-	-	-	-	-	-	24	18	3
_	2019		8,352	0							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	696	696	_
1		ARMY	8,211	0												1							A -	-	-	-	-	-	-	8
1	2021	ARMY	6,288	0	6,288																			ļ	- 1	-	ļ			6
1	2021	FMS (‡)	612	0	612																									T
1	2021	MC ^(‡)	330	0	330	_																								\top
1	2021		7,230	0	7,230																									7
	1	•			,	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U L	A U G	S E P	O C T	N O V	D E C	J A N	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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Ex	hibit l	P-21, Pr	oducti	on Sc	hedul	e: PB	2021	Arm	y														Date	: Feb	ruary	2020				
		riation / 02 / 30	Budge	t Acti	vity /	Budg	et Su	b Act	tivity:						ber / Ted ML	Title: _RS R	locke	t (GM	LRS)					104 / 0			I DOD LRS F	I C] : ROCK	ŒT	
			lements in Each)								Fiscal Ye	ear 2021									_		Fiscal Ye							В
	и			ACCEPT PRIOR	BAL								С	alendar	Year 202	1	1		1			1		Calend	dar Year	2022				L
0 0	₹	SERVICE	PROC QTY	TO 1 OCT 2020	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J N	J U L	A U G	S E P	N C E
Tac	ical GML	RS Hardware														1				ı										
Prio	r Years D	eliveries: 230	26																											
	1 2015	ARMY	450	450	0																									
	1 2015	FMS (‡)	390	390	0																								ĺ	
	1 2015	MC ^(‡)	60	60	0																								Ì	
\dashv	1 2015	Total	900	900	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
\neg	1 2016	ARMY	1,572	1,572	0													ļ												
	1 2016	FMS (‡)	492	492	0																								ĺ	
	1 2016	MC ^(‡)	90	90	0																									
\dashv	1 2016	Total	2,154	2,154	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1 2017	ARMY	2,970	2,970	0					-						-		ļ												
	1 2017	FMS (‡)	60	60	0																								ĺ	
	1 2017	MC ^(‡)	336	336	0																									
\dashv	1 2017	Total	3,366	3,366	0	-	-	- 1	-	-	-	-	-	-	-	- [-	-	- [-	-	-	- 1	-	-	-	-	-	-	
	1 2018	ARMY	6,528	6,528	0													Į.												
	1 2018	FMS (‡)	96	96	0																								ĺ	
	1 2018	MC ^(‡)	372	372	0																									
	1 2018	Total	6,996	6,996	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 1	-	-	-	-	
	1 2019	ARMY	7,668	1,284	6,384	642	642	642	642	636	636	636	636	636	636			ı												
	1 2019	FMS (‡)	462	66	396	36	36	36	36	42	42	42	42	42	42														Ī	
\neg	1 2019	MC ^(‡)	222	42	180	18	18	18	18	18	18	18	18	18	18														Ì	
\dashv	1 2019	_	8,352	1,392	6,960	696	696	696	696	696	696	696	696	696	696	- [-	-	-	-	-	-	-	-	-	-	-	-	-	
	1 2020	ARMY	8,211	0	8,211	-	-	-	-	-	-	-	-	-	-	690	684	684	684	684	684	684	684	684	684	684	681			
	1 2021	ARMY	6,288	0	6,288						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	528	528	5,23
	1 2021	FMS (‡)	612	0	612						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	54	50
	1 2021	MC ^(‡)	330	0	330						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	30	27
	1 2021	Total	7,230	0	7,230						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	612	612	6,00
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U L	A U G	S E P	

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Ext	nibit F	P-21, Pro	ducti	on Scl	hedul	e: PB	2021	Arm	У														Date	: Feb	ruary	2020			
		iation / I 02 / 30	Budge	t Activ	vity /	Budge	et Su	b Act	tivity:		1			Numk Guide			locket	t (GM	ILRS)				C654				[DOD ILRS I		KET
		Cost El (Units i							·	F	iscal Ye	ar 2023											Fiscal Ye	ear 2024					
	_			ACCEPT									С	alendar Y	ear 202	3	·							Calen	dar Year	2024			
O F	₹	SERVICE	PROC QTY	PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	FEB	M A R	A P R	M A Y	N N	J	A U G	S E P
Tact		RS Hardware																	l l										
rior	Years De	eliveries: 2302	6																										_
1	1 2015	ARMY	450	450	0																								
1	1 2015	FMS (‡)	390	390	0																								
1	1 2015	MC ^(‡)	60	60	0																								
1	1 2015	Total	900	900	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1 2016	ARMY	1,572	1,572	0										-			ı								J		1	
1	1 2016	FMS (‡)	492	492	0																								
1	1 2016	MC ^(‡)	90	90	0																								
1	_	Total	2,154	2,154	0	-	-	-	-	-	-	-	- [- 1	-	-	-	-	-	-	- 1	-	-	-	- 1	-	-	- 1	-
1	1 2017	ARMY	2,970	2,970	0						-																		
1	1 2017	FMS (‡)	60	60	0																								
1	1	MC ^(‡)	336	336	0																								
1	1 2017	Total	3,366	3,366	0	-	-	-	-	-	-	-	-	- 1	-	-	-	-	-	-	- [-	-	-	-	-	-	-	-
1	1 2018	ARMY	6,528	6,528	0	_												Į.			,						Į.	<u></u>	
1	1 2018	FMS (‡)	96	96	0																								
1	1 2018	MC ^(‡)	372	372	0																								
1	2018	Total	6,996	6,996	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1 2019	ARMY	7,668	7,668	0																				-			<u></u>	
1	1 2019	FMS (‡)	462	462	0																								
1	1 2019	MC ^(‡)	222	222	0																								
1	_		8,352	8,352	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1 2020	ARMY	8,211	8,211	0																								
1	1 2021	ARMY	6,288	1,056	5,232	528	528	522	522	522	522	522	522	522	522														
1	1 2021	FMS ^(‡)	612	108	504	54	54	54	54	48	48	48	48	48	48														
1	1 2021	MC ^(‡)	330	60	270	30	30	30	30	30	24	24	24	24	24														
1	2021	Total	7,230	1,224	6,006	612	612	606	606	600	594	594	594	594	594	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J J	J U L	A U G	S E P

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Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30	P-1 Line Item Number / Title: 6005C64400 / Guided MLRS Rocket (GMLRS)	Item Number / Title [DODIC]: C65404 / GUIDED MLRS ROCKET (GMLRS)

		Produc	ction Rates (Each	/ Year)				Procurement Le	adtime (Months)			
MFR						Init	tial			Reo	rder	
Ref #	Manufacturer Name - Location	MSR For 2021	1-8-5 For 2021	MAX For 2021	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
	Lockheed Martin M.&F.C Sys Dallas, TX	2,160	10,002	10,002	0	2	16	18	0	5	15	20

Remarks:

In the years prior to FY 2020, the GMLRS program shares a production line with Low Cost Reduced Range Practice Rockets (LCRRPR). Any months that show production gaps in years prior to FY 2020 were utilized to manufacture LCRRPR. After FY 2020, LCRRPR will move to its own production line and GMLRS will be delivered on a monthly schedule with no gaps.

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 999,999,999 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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^(‡) 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.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:

2032A / 02 / 30

P-1 Line Item Number / Title:
6005C64400 / Guided MLRS Rocket (GMLRS)

Aggregated Items Title:
C65406 / GMLRS Training Devices

															-				,	-
			Р	rior Years	S		FY 2019			FY 2020		FY	/ 2021 Bas	se	FY	/ 2021 OC	:0	FY	2021 To	tal
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
GMLRS Training Devices	•														,					
C65406 / GMLRS Training Devices			173.583	24	4.166	-	-	-	-	-	0.491	-	-	0.496	-	-	-	-	-	0.496
Secondary Distribution	1																			
Army				-	-		-	-		-	0.491		-	0.496		-	-		-	0.496
Subtotal: GMLRS Training	ıg Dev	vices	-	•	4.166	-		-	-	-	0.491	-	-	0.496	-	-	-	-	-	0.496
Total			-	-	4.166	-	-	-	-	-	0.491	-	-	0.496	-	-	-	-	-	0.496

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

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

6060C65405 / MLRS Reduced Range Practice Rockets (RRPR)

Assault Missile Sys

Program Elements for Code B Items: N/A

Other Related Program Elements: 0210602A

Line Item MDAP/MAIS Code: N/A

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	46,293	2,214	2,982	3,270	-	3,270	3,372	3,144	3,234	3,168	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	282.364	20.964	27.555	30.836	-	30.836	32.418	30.944	32.405	32.397	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	282.364	20.964	27.555	30.836	-	30.836	32.418	30.944	32.405	32.397	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	282.364	20.964	27.555	30.836	-	30.836	32.418	30.944	32.405	32.397	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	e corresponding	g budget requests	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	6.099	9.469	9.240	9.430	-	9.430	9.614	9.842	10.020	10.226	Continuing	Continuing

Description:

The Multiple Launch Rocket System (MLRS) Low Cost Reduced Range Practice Rocket (LCRRPR) is the only live training rocket that meets the annual certification and pre-deployment requirements for Active and National Guard High Mobility Artillery Rocket System (HIMARS) and M270/M270A1 MLRS launcher units. The critical validated requirement for launcher units ensures units can achieve and maintain combat readiness. HIMARS and M270A1 Battalions are organic and attached to modular Fires Brigades supporting Brigade Combat Teams (BCTs), Joint Expeditionary Force, and Joint Special Operations Force combatant commanders. The training rocket has an inert payload section and blunt nose for inducing reduced range for use at multiple facilities in the United States and foreign countries.

LCRRPRs are manufactured by Lockheed Martin in Camden, Arkansas and Letterkenny Munitions Center (LEMC) in Chambersburg, Pennsylvania. LEMC provides an organic dual source. The LCRRPR program includes the cost to Download/Demate (DL/DM) the M26 pod and rocket motor for production reuse. Total cost also includes Bunker Storage and the procurement of Performance Oriented Packaging (POP) boxes. M-26 Rocket Motor Reclamation contract, and RRPR obsolescence.

	·			FY 2021	FY 2021	FY 2021				
Seconda	ry Distribution	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	1,554	2,088	2,286	-	2,286	2,352	2,202	2,262	2,214
	Total Obligation Authority	14.715	19.294	21.597	-	21.597	22.670	21.733	22.727	22.686
ANG	Quantity	660	894	984	-	984	1,020	942	972	954
	Total Obligation Authority	6.249	8.261	9.239	-	9.239	9.748	9.211	9.678	9.711
Total:	Quantity	2,214	2,982	3,270	-	3,270	3,372	3,144	3,234	3,168
Secondary Distribution	Total Obligation Authority	20.964	27.555	30.836	-	30.836	32.418	30.944	32.405	32.397

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

6060C65405 / MLRS Reduced Range Practice Rockets (RRPR)

Assault Missile Sys

Program Elements for Code B Items: N/A

Other Related Program Elements: 0210602A

Line Item MDAP/MAIS Code: N/A

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

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C65405 / MLRS Reduced Range Practice Rockets (RRPR)	P-5a, P-21			46,293 / 282.364	2,214 / 20.964	2,982 / 27.555	3,270 / 30.836	- / -	3,270 / 30.836
P-40	Total Gross/Weapon System Cost				46,293 / 282.364	2,214 / 20.964	2,982 / 27.555	3,270 / 30.836	- 1 -	3,270 / 30.836

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

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

Justification:

FY2021 Base procurement dollars in the amount of \$30.836 million support the procurement of 3,270 LCRRPRs which are required to maintain the practice rocket inventory for Standards in Training Commission (STRC) requirements.

In FY 2021, \$0.326 million in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments

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

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Exhibit P-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 02 / 30

P-1 Line Item Number / Title:
6060C65405 / MLRS Reduced Range Practice Rockets
(RRPR)

Item Number / Title [DODIC]:
C65405 / MLRS Reduced Range
Practice Rockets (RRPR)

ID Code (A=Service Ready, B=Not Service Ready):		ME	OAP/MAIS Code:			
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	46,293	2,214	2,982	3,270	-	3,270
Gross/Weapon System Cost (\$ in Millions)	282.364	20.964	27.555	30.836	-	30.836
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	282.364	20.964	27.555	30.836	-	30.836
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	282.364	20.964	27.555	30.836	-	30.836
(The following Resource Summary rows are for information	onal purposes only. The cor	responding budget request	are documented elsewher	e.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	6.099	9.469	9.240	9.430	-	9.430
	1					l

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

	P	rior Years	;		FY 2019			FY 2020		FY	' 2021 Bas	e	FY	′ 2021 OC	0	F۱	/ 2021 Tot	.al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Flyaway Cost	'	'		'			'	,			'		'			'	'	
Recurring Cost																		
Reduced Range Practice Rocket (LCRRPR) ^(†)	4.692	46,293	217.210	7.524	2,214	16.659	7.494	2,982	22.348	7.694	3,270	25.158	-	-	-	7.694	3,270	25.1
Warheads Govt Furnished Equip (GFE)	-	-	24.692	-	-	1.906	-	-	2.617	-	-	2.954	-	-	-	-	-	2.9
Production Verification Testing	-	-	3.720	-	-	0.075	-	-	0.077	-	-	0.079	-	-	-	-	-	0.0
First Destination Transportation	-	-	1.375	-	-	0.145	-	-	0.199	-	-	0.224	-	-	-	-	-	0.2
Production Engineering Support	-	-	17.571	-	-	1.595	-	-	1.719	-	-	1.807	-	-	-	-	-	1.8
Subtotal: Recurring Cost	-	-	264.568	-	-	20.380	-	-	26.960	-	-	30.222	-	-	-	-	-	30.
Subtotal: Flyaway Cost	-	-	264.568	-	-	20.380	-	-	26.960	-	-	30.222	-	-	-	-	-	30.2
Support - Production Enginee	ring Cost							·										
Production Engineering	-	-	6.279	-	-	0.495	-	-	0.505	-	-	0.520	-	-	-	-	-	0.
Subtotal: Support - Production Engineering Cost	-	-	6.279	-	-	0.495	-	-	0.505	-	-	0.520	-	-	-	-	-	0.8
Support - Program Managem	ent Cost	,			,			,		'	· ·		'			· '	'	
Government Management	-	-	11.518	-	-	0.089	-	-	0.091	-	-	0.094	-	-	-	-	-	0.0

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LI 6060C65405 - MLRS Reduced Range Practice Rockets (RRP... Army

Exhibit P-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 02 / 30

P-1 Line Item Number / Title:
6060C65405 / MLRS Reduced Range Practice Rockets
(RRPR)

| C65405 / MLRS Reduced Range Practice Rockets
| C65405 / MLRS Reduced Range Practice Rockets (RRPR)

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

MDAP/MAIS Code:

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

140to: Gabtotalo di Totalo i	=	•	or bo ondor c		,													
	F	Prior Years	5		FY 2019			FY 2020		F	/ 2021 Ba	se	F	1 2021 OC	0	F	Y 2021 Tot	:al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Subtotal: Support - Program Management Cost	-	-	11.518	-	-	0.089	-	-	0.091	-	-	0.094	-	-	-	-	-	0.094
Gross/Weapon System Cost	6.099	46,293	282.364	9.469	2,214	20.964	9.240	2,982	27.555	9.430	3,270	30.836	-	-	-	9.430	3,270	30.836

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	1,554	2,088	2,286	-	2,286
	Total Obligation Authority	14.715	19.294	21.597	-	21.597
ANG	Quantity	660	894	984	-	984
	Total Obligation Authority	6.249	8.261	9.239	-	9.239
Total:	Quantity	2,214	2,982	3,270	=	3,270
Secondary Distribution	Total Obligation Authority	20.964	27.555	30.836	-	30.836

^(†) indicates the presence of a P-5a

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

Appropriation / Budget Activity / Budget Sub Activity:

2032A / 02 / 30

P-1 Line Item Number / Title:
6060C65405 / MLRS Reduced Range Practice Rockets
(RRPR)

Pture Item Number / Title [DODIC]:
C65405 / MLRS Reduced Range
Practice Rockets (RRPR)

Cost Elements	0 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
Reduced Range Practice Rocket (LCRRPR) ^(†)		2016	Lockheed Martin / Dallas, TX	SS / FPIF	AMCOM,RSA,AL	May 2016	May 2017	3,954	7.060	Y	Available	Feb 2016
Reduced Range Practice Rocket (LCRRPR) ^(†)		2016	Letterkenny Munitions Center / Chambersburg, PA	MIPR	LEMC, PA	Jan 2017	Feb 2017	276	5.650	Υ		
Reduced Range Practice Rocket (LCRRPR) ^(†)		2017	Lockheed Martin / Dallas, TX	SS / FPIF	AMCOM,RSA,AL	May 2017	Jul 2018	1,362	8.660	Υ		Feb 2016
Reduced Range Practice Rocket (LCRRPR) ^(†)		2017	Letterkenny Munitions Center / Chambersburg, PA	MIPR	LEMC, PA	Mar 2018	Apr 2018	342	5.850	Υ		
Reduced Range Practice Rocket (LCRRPR) ^(†)		2018	Lockheed Martin / Dallas, TX	SS / FPIF	AMCOM,RSA,AL	Apr 2018	Aug 2019	3,078	8.770	Υ		Feb 2017
Reduced Range Practice Rocket (LCRRPR) ^(†)		2018	Letterkenny Munitions Center / Chambersburg, PA	MIPR	LEMC, PA	Mar 2019	Apr 2019	342	5.920	Υ		
Reduced Range Practice Rocket (LCRRPR) ^(†)		2019	Lockheed Martin / Dallas, TX	SS / FPIF	AMCOM,RSA,AL	Mar 2019	Aug 2020	1,542	8.900	Υ		Feb 2018
Reduced Range Practice Rocket (LCRRPR) ^(†)		2019	Letterkenny Munitions Center / Chambersburg, PA	MIPR	LEMC, PA	Feb 2019	Apr 2020	672	6.040	Υ		
Reduced Range Practice Rocket (LCRRPR) ^(†)		2020	Lockheed Martin / Dallas, TX	SS / FPIF	AMCOM,RSA,AL	Mar 2020	Aug 2021	1,446	9.080	Υ		Feb 2019
Reduced Range Practice Rocket (LCRRPR) ^(†)		2020	Letterkenny Munitions Center / Chambersburg, PA	MIPR	LEMC, PA	Mar 2020	Apr 2021	1,536	6.160	Y		
Reduced Range Practice Rocket (LCRRPR) ^(†)		2021	Lockheed Martin / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Mar 2021	Aug 2022	1,577	9.260	Υ		Feb 2020
Reduced Range Practice Rocket (LCRRPR) ^(†)		2021	Letterkenny Munitions Center / Chambersburg, PA	MIPR	LEMC, PA	Mar 2021	Apr 2022	1,693	6.280	Υ		

^(†) indicates the presence of a P-21

_ .

Lockheed Martin is currently the industry source that is both facilitized and qualified to produce the Low Cost Reduced Range Practice Rocket (LCRRPR). Letterkenny Munitions Center (LEMC) has been established as the organic source that is both facilitized and qualified to produce the LCRRPR.

Footnote: Letterkenny Munitions Center (LEMC) Rocket Motor Inspection System (RMIS) Return on Investment (ROI) - Yielded 16 Additional Pods in FY17 and FY18 not reflected in the P-Form.

^{*} SS (Sole Source) / FPIF (Fixed Price Incentive Firm)

^{**} AMCOM (Aviation and Missile Command), RSA (Redstone Arsenal), AL

_														,		LIEL														
Exl	nibit	P-21, Pr	oducti	on Sc	hedul	le: PE	3 202	1 Arm	ny														Date	: Feb	ruary	2020)			
		riation / 02 / 30	Budge	et Acti	vity /	Budg	jet Sı	ıb Ac	ctivity	':	60				nber / RS Re			ge Pr	actice	Rock	kets		C654		MLR	S Rec		I C]: Rang	e	
			Elements in Each)								Fiscal	Year 201	6										Fiscal Ye	ear 2017						В
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		nge Practice F			1	-	-	_			1	1	-				-		-						-					
Prio	Years I	Deliveries: 369	39	,																										
	2016	ARMY	3,954	0	3,954								Α -	-	-	-	-	-	-	-	-	-	-	-	329	329	329	330	330	2,30
	2016	MC (‡)	648	0	648								Α -	-	-	-	-	-	-	-	-	-	-	-	54	54	54	54	54	3
1	2016	Total	4,602	0	4,602								-	-	-	-	-	-	-	-	-	-	-	-	383	383	383	384	384	2,68
1	2016	ARMY	276	0	276										'			,			Α -	23	23	23	23	23	23	23	23	,
	2017	ARMY	1,362	0	1,362																				Α -	-	-	-	-	1,36
	2017	MC ^(‡)	648	0	648																				A -	-	-	-	-	64
	2017	7 Total	2,010	0	2,010																				-	-	-	-	-	2,0
- 2	2 2017	ARMY	342	0	342																						,			34
	2018	3 ARMY	3,078	0	3,078																									3,0
-	2018	MC (‡)	648	0	648																									64
	2018	Total	3,726	0	3,726																									3,72
2	2018	3 ARMY	342	0	342																									34
	2019	ARMY	1,542	0	1,542																									1,54
-	2019	MC ^(‡)	648	0	648																									64
	2019	Total	2,190	0	2,190																									2,19
- 2	2019	ARMY	672	0	672																									67
	2020	ARMY	1,446	0	1,446																									1,44
-	2020	MC ^(‡)	648	0	648																									64
	2020	Total	2,094	0	2,094																									2,09
;	2 2020	ARMY	1,536	0	1,536																									1,53
		_	1,577	0	-																									1,5
2	2 2021	ARMY	1,693	0	1,693				1	1			_				1	1			1									1,69
						O C T	N O V	D E C	J A N	F E B	M A R	P R	M A Y	U U	U L	U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	U J	A U G	S E P	

LI 6060C65405 - MLRS Reduced Range Practice Rockets (RRP... Army

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Ex	hik	oit P	P-21, Pro	oducti	on Sc	hedul	e: PF	3 2021	Arm	V														Date	: Feb	ruarv	2020				
Αp	pr	opri	iation / 1 02 / 30							•	<u> </u>		0C65			ber / S		Rang	e Pra	ctice	Rock	ets		Item	Num 405 / 1	ber/ MLRS	Title Red	[DOD uced	I C]: Range	e	
				lements in Each)								Fiscal Ye	ar 2018										F	iscal Ye	ar 2019						В
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Red	uce		ge Practice R				I																								
Prio	r Ye	ars De	eliveries: 3693	39																											
	1 :	2016	ARMY	3,954	1,647	2,307	330	330	330	330	329	329	329																		
	1 :	2016	MC ^(‡)	648	270	378	54	54	54	54	54	54	54																		
	1 :	2016	Total	4,602	1,917	2,685	384	384	384	384	383	383	383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	_	2016	ARMY	276	184	92	23	23	23	23			Т		ı	-	-			ı		-	1	-	-	-				ļ	
\vdash	_	2017	ARMY	1,362	0	_	-	-	-	-	-	-	-	-	-	113	113	113	114	114	114	114	114	114	113	113	113			ļ	
	_	2017	MC ^(‡)	648	0		-	-	-	-	-	-	-	-	-	54	54	54	54	54	54	54	54	54	54	54	54				
\perp			Total	2,010	0	_,-,-	-	-	-	-	-	-	-	-	-	167	167	167	168	168	168	168	168	168	167	167	167	-	-	-	
\vdash	_	2017	ARMY	342 3,078	0	-						Α -	28 A -	28	29	29	29	29	29	29	28	28	28	28					256	256	2,56
\vdash	+	2018	MC (‡)	648	0	 									-		-	-	-	-	-	-	-	-	-	-	-	-	54	54	2,50
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	_	2019	ARMY	1,542	0																			A -	-	-	-	-	-	-	1,54
\Box	+	2019	MC ^(‡)	648	0	 																		A -	-	_	_	_	_	_	64
H	_		Total	2,190	0																			-	-	-	-	-	-	_	2,19
\Box	_	2019	ARMY	672	0	-																	A -	-	-	-	-	-	-	-	67
	1 :	2020	ARMY	1,446	0	1,446																						Į.			1,44
	1 :	2020	MC ^(‡)	648	0	648																									64
	1 :	2020	Total	2,094	0	2,094																									2,09
	2	2020	ARMY	1,536	0	1,536																									1,53
	_	2021	ARMY	1,577	0																										1,57
	2 2	2021	ARMY	1,693	0	1,693																							1		1,69
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	U L	A U G	S E P	

LI 6060C65405 - MLRS Reduced Range Practice Rockets (RRP... Army

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													•	,	(2211	– –														
Exi	nibit	P-21, Pi	roducti	on Sc	hedul	le: PE	3 2021	Arm	y														Date	: Feb	ruary	2020				
Αp	prop	oriation / 02 / 30								!	606				ber / S			ge Pra	actice	Rock	ets		C654		MLRS	Red	[DOD uced RPR)		e	
			Elements s in Each)								Fiscal Ye	ar 2020											Fiscal Ye	ar 2021						В
		(0////	Lucin	ACCEPT							11000111	Jul 2020		Calendar	Year 202	0					_		1 10001 10		dar Year	2021				A L
0 1	•			PRIOR TO 1	BAL DUE	О	N	D	J	F	м	Α	М	J	J	А	s	0	N	D	J	F	М	Α	м	J	J	Α	s	A
C F		SERVICE	PROC QTY	OCT 2019	AS OF 1 OCT	C T	0 V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	(E
Red	iced R	ange Practice	Rocket (LCF	RRPR)		· · · · · ·							,		,															
Prior	Years	Deliveries: 369	939																											
•	201	6 ARMY	3,954	3,954	0																									
1	201	6 MC ^(‡)	648	648	0																									
1	201	6 Total	4,602	4,602	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	201	6 ARMY	276	276	0																									
	201	7 ARMY	1,362	1,362	0																									
	201	7 MC ^(‡)	648	648	0																									
1	201	7 Total	2,010	2,010	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	201	7 ARMY	342	342	0																		·	·			·			
•	201	8 ARMY	3,078	512	2,566	256	257	257	257	257	257	257	256	256	256														[
-	201	8 MC ^(‡)	648	108	540	54	54	54	54	54	54	54	54	54	54															
1	201	8 Total	3,726	620	3,106	310	311	311	311	311	311	311	310	310	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	201	8 ARMY	342	171	171	29	29	29	28	28	28																			
	201	9 ARMY	1,542	0	1,542	-	-	-	-	-	-	-	-	-	-	129	129	129	129	129	128	128	128	128	128	128	129			
	201	9 MC ^(‡)	648	0	648	-	-	-	-	-	-	-	-	54	54	54	54	54	54	54	54	54	54	54	54	-	-			
1	201	9 Total	2,190	0	2,190	-	-	-	-	-	-	-	-	54	54	183	183	183	183	183	182	182	182	182	182	128	129	-	-	
2	201	9 ARMY	672	0	672	-	-	-	-	-	-	56	56	56	56	56	56	56	56	56	56	56	56							
	202	0 ARMY	1,446	0	1,446						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120	121	1,2
	202	0 MC ^(‡)	648	0	648						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	54	54	54	54	54	;
1	202	0 Total	2,094	0	2,094						-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	54	54	174	175	1,5
2	202	0 ARMY	1,536	0	1,536						Α -	-	-	-	-	-	-	-	-	-	-	-	-	128	128	128	128	128	128	7
	202	1 ARMY	1,577	0	1,577																		A -	-	-	-	-	-	-	1,
2	202	1 ARMY	1,693	0	1,693												,						A -	-	-	-	-	-	-	1,0
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	J L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2021 Army Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]:																			_										
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30										P-1 Line Item Number / Title: 6060C65405 / MLRS Reduced Range Practice Rockets (RRPR)											Item Number / Title [DODIC]: C65405 / MLRS Reduced Range Practice Rockets (RRPR)								
									Fiscal Year 2022 Calendar Year 2022											Fiscal Year 2023 Calendar Year 2023									
м			ACCEPT PRIOR				1	-				С	alendar `	Year 202	022			1	1	ſ	1	1	Calen	dar Year	2023		1		
) F R		SERVICE	PROC QTY	TO 1 OCT 2021	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U J	n N	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N J	J U L	A U G	S E P
_		inge Practice R				-					.,		-	.,	_		-	-	•				.,						
		Deliveries: 3693																											
1		ARMY	3,954	3,954	0																								
1	2016	6 MC (‡)	648	648	0																								
1	2010	11112	4,602	4,602	0	- [-	-	-	-	-	-	-	- 1	-	-	- [-	-	- 1	-	- 1	- 1	-	- 1	-	-	-	_
+	2016		276	276	0																								
_	201		1,362	1,362	0																								
1	2017	7 MC ^(‡)	648	648	0																								
1	201	_	2,010	2,010	0	- [-	-	-	- 1	-	-	-	- 1	-	-	-	-	-	- 1	- 1	-	-	-	- 1	-	-	-	-
-	201		342	342	0								ļ				-	Į.	l			ļ		l	-				
1	2018	3 ARMY	3,078	3,078	0																								
1	2018	MC (‡)	648	648	0																								
1	2018		3,726	3,726	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2018	3 ARMY	342	342	0													,							-				
1	2019	ARMY	1,542	1,542	0																								
1	2019	MC (‡)	648	648	0																								
1	2019	Total	2,190	2,190	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2019	ARMY	672	672	0			·		,									,					,			·	,	
1	2020	ARMY	1,446	241	1,205	121	121	121	121	121	120	120	120	120	120														
1	2020	MC (‡)	648	270	378	54	54	54	54	54	54	54	-	-	-														
1	2020	Total	2,094	511	1,583	175	175	175	175	175	174	174	120	120	120	-	-	-	-	-	-	-	-	-	-	-	-]	-	-
2	2020	ARMY	1,536	768	768	128	128	128	128	128	128																		
1	202	1 ARMY	1,577	0	1,577	-	-	-	-	-	-	-	-	-	-	132	132	132	132	132	132	132	132	132	132	132	125		
2	202	1 ARMY	1,693	0	1,693	-	-	-	-	-	-	141	141	141	141	141	141	141	141	141	141	141	142						
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	U J	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N J	J U L	A U G	S E P

LI 6060C65405 - MLRS Reduced Range Practice Rockets (RRP... Army

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Exhibit P-21, Production Schedule: PB 2021 Army	Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30	P-1 Line Item Number / Title: 6060C65405 / MLRS Reduced Range Practice Rockets	Item Number / Title [DODIC]: C65405 / MLRS Reduced Range				
	(RRPR)	Practice Rockets (RRPR)				

		Produc	ction Rates (Each	/ Year)	Procurement Leadtime (Months)											
MFF						lni	tial		Reorder							
Ref	Manufacturer Name - Location	MSR For 2021	1-8-5 For 2021	MAX For 2021	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	Lockheed Martin - Dallas, TX	504	9,216	11,520	0	4	16	20	0	4	16	20				
2	Letterkenny Munitions Center - Chambersburg, PA	504	1,500	1,968	0	2	12	14	0	4	12	16				

Remarks:

There are no production gaps during months that Low Cost Reduced Range Practice Rockets (LCRRPRs) are not being produced as Guided Multiple Launch Rocket System (GMLRS) Rocket production continues. Continued production of LCRRPRs at Camden, Arkansas mitigates shared production costs with GMLRS and Army Tactical Missile System (ATACMS). The plans are to relocate LCRRPR production to M33 resulting in LCRRPRs no longer sharing a production line with GMLRS.

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 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).

^(‡) 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.

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

6200C02901 / High Mobility Artillery Rocket System (HIMARS)

Assault Missile Sys

Program Elements for Code B Items: N/A

Other Related Program Elements: 0210608A, 0603778A

Line Item MDAP/MAIS Code: 367

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	OCO	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	411	17	-	5	-	5	11	5	-	-	-	449
Gross/Weapon System Cost (\$ in Millions)	1,861.090	171.138	-	41.226	-	41.226	88.979	41.228	-	-	-	2,203.661
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,861.090	171.138	-	41.226	-	41.226	88.979	41.228	-	-	-	2,203.661
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,861.090	171.138	-	41.226	-	41.226	88.979	41.228	-	-	-	2,203.661
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	budget request:	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	4,528.200	10,066.941	-	8,245.200	-	8,245.200	8,089.000	8,245.600	-	-	-	4,907.931

Description:

The M142 High Mobility Artillery Rocket System (HIMARS) launcher is a full spectrum, combat proven, all weather, 24/7 lethal and responsive, precision strike weapon system. HIMARS provides critical missile precision strike, operational shaping fires, counter-fire, and close support destructive and suppressive fires. HIMARS is a C-130 or C-17 transportable, wheeled, indirect fire, rocket/missile launcher capable of firing one pod of precision rockets/missiles from the current and future Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM), to include the Guided Multiple Launch Rocket System-Unitary (GMLRS-U), GMLRS Alternative Warhead, the Army Tactical Missile System (ATACMS) and future MFOM to include the Extended Range (ER) GMLRS, and the Precision Strike Missile (PrSM). In FY2017, the Army directed the program office to produce additional HIMARS launchers in an effort called HIMARS Fleet Expansion. Army Acquisition Objective (AAO) is 363 HIMARS launchers. HIMARS Fleet Expansion will increase the Army Acquisition Objective to 425, but may be increased contingent on Army requirements.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	17	-	5	-	5	11	5	-	-
	Total Obligation Authority	171.138	-	41.226	-	41.226	88.979	41.228	-	-
Total:	Quantity	17	-	5	-	5	11	5	-	-
Secondary Distribution	Total Obligation Authority	171.138	-	41.226	-	41.226	88.979	41.228	-	-

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

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6200C02901 / High Mobility Artillery Rocket System (HIMARS)

Assault Missile Sys

Program Elements for Code B Items: N/A

Other Related Program Elements: 0210608A, 0603778A

Date: February 2020

Line Item MDAP/MAIS Code: 367

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

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C03000 / HIMARS LAUNCHER				411 / 1,861.090	17 / 171.138	- / -	5 / 41.226	- / -	5 / 41.226
P-40	Total Gross/Weapon System Cost				411 / 1,861.090	17 / 171.138	- 1 -	5 / 41.226	- 1 -	5 / 41.226

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

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

Justification:

FY2021 Base procurement dollars in the amount of \$41.266 million supports the procurement of 5 M142 HIMARS launchers and associated equipment. This is an increase of \$41.266 million from PB2020. This increase reflects a change in Army priorities to buy more HIMARS launchers. Obsolescence with the Universal Fire Control System (UFCS) required the program office to make a lifetime buy of UFCS in FY2019 to support FY2021 and future launchers. This decreases the unit cost per launcher since the UFCS is not included in the FY2021-2023 costs. With projected FMS sales, cost savings realized from economies of scale decreases the overall estimated unit price for FY2021. The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or foreign military sales to support additional HIMARS launchers and Fleet Expansion.

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

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Exhibit P-5, Cost Analysis: PB 2021 Army Date: February 2020 Appropriation / Budget Activity / Budget Sub Activity: Item Number / Title [DODIC]: P-1 Line Item Number / Title: 2032A / 02 / 30 6200C02901 / High Mobility Artillery Rocket System (HIMARS) C03000 / HIMARS LAUNCHER ID Code (A=Service Ready, B=Not Service Ready): MDAP/MAIS Code: **Prior Years** FY 2019 **FY 2020 FY 2021 Base FY 2021 OCO** FY 2021 Total Resource Summary 17 Procurement Quantity (Units in Each) 411 5 Gross/Weapon System Cost (\$ in Millions) 1,861.090 171.138 41.226 41.226 Less PY Advance Procurement (\$ in Millions) Net Procurement (P-1) (\$ in Millions) 1,861.090 171.138 41.226 41.226 Plus CY Advance Procurement (\$ in Millions) _ Total Obligation Authority (\$ in Millions) 1.861.090 171.138 41.226 41.226 (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) 4,528.200 10,066.941 8,245.200 8,245.200 Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. **Prior Years** FY 2019 FY 2020 **FY 2021 Base FY 2021 OCO** FY 2021 Total Total Total Total Total Total Total **Unit Cost** Qty **Unit Cost** Qty **Unit Cost** Qty **Unit Cost Unit Cost** Qty **Unit Cost** Qty Cost Cost Cost Qty Cost Cost Cost Cost Elements (Each) (Each) (\$ M) (Each) (Each) (Each) (\$ M) (\$ K) (\$ K) (\$ M) (\$ K) (\$ M) (\$ K) (Each) (\$ M) (\$ K) (\$ M) (\$ K) Flyaway Cost Recurring Cost Launcher 2.865.681 411 1.177.795 7.609.353 17 129.359 -4.244.800 5 21.224 4.244.800 5 21.224 189.532 597.625 24 14.343 Carrier Subtotal: Recurring Cost 1,367.327 143.702 -21.224 21.224 Non Recurring Cost European Deterrence Initiative Production Restart 74.400 - Obsolescence Mitigation Subtotal: Non Recurring 74.400 Cost 143.702 21.224 Subtotal: Flyaway Cost 1,441.727 21.224 Support - Fielding Cost Fielding 69.479 6.049 2.856 2.856 Subtotal: Support - Fielding 69.479 6.049 2.856 2.856 Cost

LI 6200C02901 - High Mobility Artillery Rocket System (H... Army

28.410

28.410

Support - Operational/Site Activation Cost

System Assembly, Installation and Checkout

on Site

Subtotal: Support Operational/Site Activation

Cost

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Exhibit P-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 02 / 30

P-1 Line Item Number / Title:
6200C02901 / High Mobility Artillery Rocket System (HIMARS)

C03000 / HIMARS LAUNCHER

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

MDAP/MAIS Code:

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

	F	Prior Years	5		FY 2019			FY 2020		F۱	/ 2021 Ba	se	F	/ 2021 OC	0	FY	2021 Tota	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Support - Peculiar Support Ed	quipment Cost								,								,	
Support and Handling Equipment	-	-	38.237	-	-	1.070	-	-	-	-	-	2.131	-	-	-	-	-	2.131
Subtotal: Support - Peculiar Support Equipment Cost	-	-	38.237	-	-	1.070	-	-	-	-	-	2.131	-	-	-	-	-	2.131
Support - Production Enginee	ring Cost			<u> </u>														
Production Engineering	-	-	103.257	-	-	11.399	-	-	-	-	-	9.992	-	-	-	-	-	9.992
Subtotal: Support - Production Engineering Cost	-	-	103.257	-	-	11.399	-	-	-	-	-	9.992	-	-	-	-	-	9.992
Support - Program Managem	ent Cost																,	
Government Management	-	-	22.856	-	-	1.267	-	-	-	-	-	3.238	-	-	-	-	-	3.238
Subtotal: Support - Program Management Cost	-	-	22.856	-	-	1.267	-	-	-	-	-	3.238	-	-	-	-	-	3.238
Support - System Engineering	Cost																,	
System Engineering	-	-	124.587	-	-	6.259	-	-	-	-	-	1.455	-	-	-	-	-	1.455
Subtotal: Support - System Engineering Cost	-	-	124.587	-	-	6.259	-	-	-	-	-	1.455	-	-	-	-	-	1.455
Support - System Test and Ev	valuation Cost																,	
Test and Evaluation Support	-	-	32.537	-	-	1.392	-	-	-	-	-	0.330	-	-	-	-	-	0.330
Subtotal: Support - System Test and Evaluation Cost	-	-	32.537	-	-	1.392	-	-	-	-	-	0.330	-	-	-	-	-	0.330
Gross/Weapon System Cost	4,528.200	411	1,861.090	10,066.941	17	171.138	-	-	-	8,245.200	5	41.226	-	-	-	8,245.200	5	41.226

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	17	-	5	-	5
	Total Obligation Authority	171.138	-	41.226	-	41.226
Total:	Quantity	17	-	5	=	5
Secondary Distribution	Total Obligation Authority	171.138	-	41.226	=	41.226

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

Assault Missile Sys

6472C98510 / ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM

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

Program Elements for Code B Items: N/A

Other Related Program Elements: 0203802A

Line Item MDAP/MAIS Code: N/A

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	1,279	0	232	-	-	-	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	1,266.402	-	300.783	-	-	-	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	75.067	-	-	-	-	-	-	-	-	-	-	75.067
Net Procurement (P-1) (\$ in Millions)	1,191.335	-	300.783	-	-	-	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	75.067	-	-	-	-	-	-	-	-	-	-	75.067
Total Obligation Authority (\$ in Millions)	1,266.402	-	300.783	-	-	-	-	-	-	-	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Tl	ne corresponding	g budget request	s are documente	ed elsewhere.)	•			
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	990.150	-	1,296.478	-	-	-	-	-	-	-	Continuing	Continuing

Description:

NOTE: All funds for this program were previously included in CA6700 ATACMS Mods in support of New Missiles.

There is no funding for FY 2021.

Army Tactical Missile System (ATACMS) is the United States (U.S.) Army's primary 24/7, all weather, and surface-to-surface artillery precision missile used by current and future Combatant Commanders to shape the battlefield with long-range fires against hard and soft stationary targets in open, complex, and urban environments. The missile provides the Combatant Commanders with a 24/7 all-weather 300 kilometers (km) long-range fires capability to attack high-payoff, time-sensitive targets without placing aircraft and crews at risk. It's precision accuracy, along with the absence of potential duds and reduced lethal radii. mitigate the warfighter's collateral damage concerns against hard and soft targets in complex and urban environments.

Secondary	/ Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	232	-	-	-	-	-	-	-
	Total Obligation Authority	-	300.783	-	-	-	-	-	-	-
Total:	Quantity	-	232	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	-	300.783	-	-	-	-	-	-	-

Justification:

There is no funding for FY 2021.

Procurement dollars moved from ATACMS Mods (1823CA6700) funding line.

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Exhibit P-40, Budget Line Item Justification	: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Su 2032A: Missile Procurement, Army / BA 02: Ot Assault Missile Sys		P-1 Line Item N 6472C98510 / A	umber / Title: RMY TACTICAL MSL SYS (ATACMS) - SYS SUM
D Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B	Items: N/A	Other Related Program Elements: 0203802A
Line Item MDAP/MAIS Code: N/A			
In accordance with Section 1815 of the FY 2008 National defense missions, domestic emergency responses, and p	Defense Authorization Act (P.L. 110-181), this providing military support to civil authorities.	s item is necessary for u	ise by the active and reserve components of the Armed Forces for homeland
This program supports the Long Range Precision Fires C	ross Functional Team (CFT), ATACMS BLK 1	A (C98501).	

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

6870C88001 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)

P-1 Line #17

Assault Missile Sys

Program Elements for Code B Items: N/A

Other Related Program Elements: 0203802A

Line Item MDAP/MAIS Code: N/A

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	859	1,225	1,130	-	1,130	1,130	-	-	-	-	-	4,344
Gross/Weapon System Cost (\$ in Millions)	78.427	104.973	83.300	-	84.993	84.993	-	-	-	-	-	351.693
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	78.427	104.973	83.300	-	84.993	84.993	-	-	-	-	-	351.693
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	78.427	104.973	83.300	-	84.993	84.993	-	-	-	-	-	351.693
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)			<u> </u>	
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	91.300	85.692	73.717	-	75.215	75.215	-	-	-	-	-	80.961

Description:

Lethal Miniature Aerial Missile System (LMAMS) is a single man-portable/operable, light-weight organic, beyond line-of-sight, precision guided, loitering aerial missile system capable of locating and engaging obscured and/or fleeting enemy targets who otherwise cannot be engaged by typical direct fire weapon systems. Front and Side Look High Resolution Electro-Optical (day) and Front Look Infrared (night) cameras allow the Warfighter to have eyes on the target for positive identification. LMAMS Wave-Off capability allows the operator to wave-off or re-direct the LMAMS flight path prior to impact, if necessary. The system is comprised of a fire control unit, launcher, missile, and a modular payload capable of high lethality against unprotected Combatant Personnel and producing casualties against Personnel in Soft Skinned Vehicles. LMAMS has the ability to be employed in less than two minutes.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	1,225	1,130	-	1,130	1,130	-	-	-	-
	Total Obligation Authority	104.973	83.300	-	84.993	84.993	-	-	-	-
Total:	Quantity	1,225	1,130	-	1,130	1,130	-	-	-	-
Secondary Distribution	Total Obligation Authority	104.973	83.300	-	84.993	84.993	-	-	-	-

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/

6870C88001 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)

Assault Missile Sys

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

Program Elements for Code B Items: N/A

Other Related Program Elements: 0203802A

Date: February 2020

Line Item MDAP/MAIS Code: N/A

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C88022 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	P-5a, P-21			859 / 78.427	1,225 / 104.973	1,130 / 83.300	- / -	1,130 / 84.993	1,130 / 84.993
P-40	Total Gross/Weapon System Cost				859 / 78.427	1,225 / 104.973	1,130 / 83.300	- 1 -	1,130 / 84.993	1,130 / 84.993

^{*}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:

LMAMS capability is required to fulfill JUONs and maintain asset inventory in support of Joint Urgent Operational Need CC-0556, AC-0008, AF-0009, Operational Need Statement 17-22331, and other emerging urgent requirements.

FY2021 OCO procurement dollars in the amount of \$84.993 million procures 1130 All Up Rounds (AUR), 38 Fire Control Units, 7 Multi-Pack Launchers, 190 Inert Training Rounds, 38 Training Simulators, and supporting equipment.

The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or foreign military sales to increase the Army procurement of LMAMS missiles and/or to mitigate safety and obsolescence issues.

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Exhibit P-5, Cost Analysis: PB 2021 Army

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]:

2032A / 02 / 30

6870C88001 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)

C88022 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)

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

MDAP/MAIS Code:

Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	EV 0004 Tatal
			I I ZUZ I Dase	F1 2021 OCO	FY 2021 Total
859	1,225	1,130	-	1,130	1,130
78.427	104.973	83.300	-	84.993	84.993
-	-	-	-	-	-
78.427	104.973	83.300	-	84.993	84.993
-	-	-	-	-	-
78.427	104.973	83.300	-	84.993	84.993
urposes only. The con	responding budget requests	are documented elsewhere	e.)		
-	-	-	-	-	-
04.200	05.000	70 747		75.045	75.215
	- 78.427 urposes only. The con	78.427 104.973 urposes only. The corresponding budget requests	78.427 104.973 83.300 urposes only. The corresponding budget requests are documented elsewhere		- - 78.427 104.973 83.300 - 84.993

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

	P	rior Years	;		FY 2019			FY 2020		F۱	/ 2021 Ba	se	F۱	2021 OC	0	F	/ 2021 Tota	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Flyaway Cost		·			·													
Recurring Cost																		
All Up Rounds ^(†)	48.155	889	42.810	54.877	1,225	67.224	57.398	1,130	64.860	-	-	-	56.926	1,130	64.326	56.926	1,130	64.32
Inert Training Missiles	49.409	320	15.811	44.255	200	8.851	44.458	190	8.447	-	-	-	39.837	190	7.569	39.837	190	7.56
Training Simulators	25.410	39	0.991	25.175	40	1.007	25.000	38	0.950	-	-	-	26.105	38	0.992	26.105	38	0.99
Multi-Pack Launcher	-	-	-	81.000	10	0.810	81.000	7	0.567	-	-	-	67.857	7	0.475	67.857	7	0.47
Training Support Equipment	-	-	2.330	-	-	0.465	-	-	1.514	-	-	-	-	-	2.051	-	-	2.05
Fielding	-	-	8.725	-	-	16.268	-	-	3.358	-	-	-	-	-	1.087	-	-	1.08
Fire Control Units	24.824	51	1.266	24.700	40	0.988	25.316	38	0.962	-	-	-	23.289	38	0.885	23.289	38	0.88
Subtotal: Recurring Cost	-	-	71.933	-	-	95.613	-	-	80.658	-	-	-	-	-	77.385	-	-	77.38
Non Recurring Cost																		
Qualify Second Source	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.447	-	-	5.44
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.447	-	-	5.4
Subtotal: Flyaway Cost	-	-	71.933	-	-	95.613	-	-	80.658	-	-	-	-	-	82.832	-	-	82.83
Support - Acceptance Testing	Cost			,	,								,	·			,	
Acceptance Test	-	-	1.266	-	-	4.653	-	-	0.799	-	-	-	-	-	0.250	-	-	0.25
Subtotal: Support - Acceptance Testing Cost	-	-	1.266	-	-	4.653	-	-	0.799	-	-	-	-	-	0.250	-	-	0.25
Support - Program Managem	ent Cost	<u></u>					· '											

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Exhibit P-5, Cost Analysis: PB 2021 Army

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]: C88022 / LETHAL MINIATURE AERIAL

2032A / 02 / 30

6870C88001 / LETHAL MINIATURE AERIAL MISSILE

SYSTEM (LMAMS)

MISSILE SYSTEM (LMAMS)

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

MDAP/MAIS Code:

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

					,													
	F	Prior Years	S		FY 2019			FY 2020		F	/ 2021 Ba	se	F	Y 2021 OC	0	F'	Y 2021 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Government Management	-	-	5.228	-	-	4.707	-	-	1.843	-	-	-	-	-	1.911	-	-	1.911
Subtotal: Support - Program Management Cost	-	-	5.228	-	-	4.707	-	-	1.843	-	-	-	-	-	1.911	-	-	1.911
Gross/Weapon System Cost	91.300	859	78.427	85.692	1,225	104.973	73.717	1,130	83.300	-	-	-	75.215	1,130	84.993	75.215	1,130	84.993

Remarks:

Non-Recurring Cost is to qualify Second Source for the LMAMS System.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	1,225	1,130	-	1,130	1,130
	Total Obligation Authority	104.973	83.300	-	84.993	84.993
Total:	Quantity	1,225	1,130	-	1,130	1,130
Secondary Distribution	Total Obligation Authority	104.973	83.300	-	84.993	84.993

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 A	Army	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30	P-1 Line Item Number / Title: 6870C88001 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	Item Number / Title [DODIC]: C88022 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)

Cost Elements	0 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Revision	RFP Issue Date
All Up Rounds ^(†)	1	2019	AeroVironment / Simi Valley, CA	SS / FFP	AMCOM, Redstone Arsenal, AL	Jun 2020	Mar 2021	1,225	57.358	Υ		
All Up Rounds ^(†)	1	2020	AeroVironment / Simi Valley, CA	SS / FFP	AMCOM, Redstone Arsenal, AL	Jun 2020	Mar 2021	1,130	57.398	Υ		
All Up Rounds ^(†)	1	2021	AeroVironment / Simi Valley, CA	SS / FFP	AMCOM, Redstone Arsenal, AL	Mar 2021	Mar 2022	1,130	56.926	Υ		

^(†) indicates the presence of a P-21

Remarks:

10 U.S. Code #2431 and DoD Financial Mgt Reg Vol 2B, Ch4 mandate Production Rates be defined in terms of ""budget year."""

														UN	ICLA	SSI	FIED)													
Ex	hib	oit P	-21, Pro	ductio	on Sc	hedul	e: PB	3 202	1 Arm	ıy														Date	Febr	uary	2020				
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	,		Cost Ele (Units in									Fiscal \	/ear 2020	1										Fiscal Yea	ar 2021						В
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Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30 Cost Elements (Units in Each) Fiscal Year 2022	Fis	LE			C88	em Nu 88022	! / LE1	THAL	L MIN			۸ED
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Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30	P-1 Line Item Number / Title: 6870C88001 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	Item Number / Title [DODIC]: C88022 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)

		Produc	ction Rates (Each	/ Year)				Procurement Le	adtime (Months)			
MFR						Init	tial			Reo	rder	
Ref #	Manufacturer Name - Location	MSR For 2021	1-8-5 For 2021	MAX For 2021	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	AeroVironment - Simi Valley, CA	600	1,500	3,000	1	1	5	6	1	1	5	6

Remarks:

Since All Up Rounds are delivered in response to JUONS, neither MSR nor MAX apply to LMAMS.

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 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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[&]quot;A" in the Delivery Schedule indicates the Contract Award Date.

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

0962C50700 / Patriot Mods

Modifications

ID Code (A=Service Ready, B=Not Service Ready): Program Elements for Code B Items: N/A Other Related Program Elements: 0607865A

Line Item MDAP/MAIS Code: N/A

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	
Gross/Weapon System Cost (\$ in Millions)	4,162.964	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	
Net Procurement (P-1) (\$ in Millions)	4,162.964	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	
Total Obligation Authority (\$ in Millions)	4,162.964	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	budget requests	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	
Gross/Weapon System Unit Cost (\$ in Thousands)	46,774.876	8,506.000	14,669.263	27,805.000	-	27,805.000	-	-	-	-	Continuing	Continuing

Description:

Note: Starting in FY21, funds realigned from PE C50016, System Integration and Test Procurement.

The PATRIOT Mods program implements critical capability, readiness and sustainability modifications to the weapon system and maintains Integrated Logistics Support. Required modifications are identified through various means to include: validated requirement documents such as the Capability Production Document (CPD), Capabilities Development Document (CDD), and the Operational Needs Statement (ONS); material changes supported by improved operational effectiveness as identified in the PATRIOT Product Improvement Program (PIP); material deficiencies identified in the field; obsolescence issues; emerging technologies; software improvements related to warfighter machine and crew interface requirements and communication upgrades.

PATRIOT Mods funding supports International Engineering Services Program (IESP); Integrated Logistics Support (ILS); US Unique Engineering Services (ES); System Engineering Program Management (SEPM) activities; Reliability, Availability, and Maintainability (RAM) Mods; Recapitalization (RECAP); Dismounted Patriot Information Coordination Central (DPICC); Battery Command Post/ Tactical Command System /Computer Software Module (BCP/TCS/CSM) Mod; the Radar Digital Processor-Configuration (RDP-C) upgrade; PATRIOT Maintenance Trainer (PMT); PATRIOT Multi-Echelon Training (PMET); Assured Positioning, Navigation, and Timing (PNT); Test Detachment; Enhanced Launcher Electronic Systems (ELES); SIPRNet/NIPRNet Access Point/Troposcatter (SNAP/TROPO); Digital Sidelobe Canceller (DSLC); Command Obsolescence Alleviation; 35th Brigade Modification Kits and ADI TPX 57 Obsolescence; MAP/RDP Encryption Compliance; IFF Antenna Redesign; Communications Obsolescence Upgrade; and Report Rocket Classification.

IESP is an international cost share program which allows the current 16 FMS partners to contribute toward common, non-RDTE engineering activities required to sustain PATRIOT capability. This cost share program structure is at a ratio of 2:1 FMS dollars to USD investment. Consolidated funds provide essential engineering services toward enhancing PATRIOT fleet readiness for both the United States Army and International partners. Significant cost avoidance is achieved by sharing expenses that would otherwise be fully funded by the United States to achieve the same result.

RAM modifications provide resolution to field failures which are identified through component analysis, field data collection, obsolescence issues and emerging technologies which are prioritized based on readiness and Operations and Support (O&S) impacts. This effort includes the engineering, acquisition, qualification testing, installation, technical support and training device upgrades associated with modification and design changes which are essential to stabilize the system at the highest readiness posture available and reduction of O&S. Kit quantity is based on expected Engineering Change Proposals (ECPs) to be applied to Major End Items (MEIs). Quantities will be procured at an optimized rate utilizing price advantage created through contract negotiation, other service procurement, and/or foreign military sales into a buy-to-budget procurement strategy.

LI 0962C50700 - Patriot Mods
Army

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P-1 Line #18

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

Appropriation / Budget Activity / Budget Sub Activity:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

Modifications

Date: February 2020

P-1 Line Item Number / Title:

0962C50700 / Patriot Mods

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

Program Elements for Code B Items: N/A

Other Related Program Elements: 0607865A

Line Item MDAP/MAIS Code: N/A

Recapitalization (RECAP) Modifications include critical upgrades including but not limited to: Family of Medium Tactical Vehicles (FMTV), and Depot Maintenance Plant Equipment (DMPE), Harmonic Generator Kits, Post Deployment Build 8 (PDB-8) S/W & H/W, Cryptographic Modernization Kits, Modern Man Station (MMS), Antenna Mast Group (AMG) Cable upgrades, Electronic Power Plant (EPP) C3 Power Distribution Unit (PDU) kits, Information and Coordination Central (ICC) External Time Reference (ETR) kits, and Cooling Liquid Electron Tube (CLET) kits. These modifications are synchronized within the RECAP program. RECAP is a battalion set, resulting in a more supportable, reliable, and capable unit in the force. Quantity represents 1 battalion a year.

Dismounted Patriot Information Coordination Central (DPICC) effort rehosts tactical Patriot software maintained via engineering services to a smaller, portable hardware configuration that will allow flexible, tailorable deployment options by freeing up Battalion level ICC's.

The Battery Command Post/Tactical Command System/Computer Software Module (BCP/TCS/CSM) effort continues the development of the Capabilities Development Document (CDD) required Battle Management, Command, Control, Communications, Computers, and Intelligence (BMC4I) capability to maintain compatibility with tactical software enhancements, while enhancing and improving the defense design and planning capabilities for the PATRIOT warfighter. This includes systems engineering, software requirements, software design/code/test and independent validation and verification testing. This effort also provides Integrated Logistics Support, required due to the large amount of Commercial Off The Shelf components, of the 62 Battery Command Posts and 17 Tactical Command Systems. Additionally, this effort supports the BCP/TCS/CSM fielding upgrades for each PATRIOT Post Deployment Build updates. Note: Quantities procured and installed in prior years.

Patriot Multi-Echelon Training (PMET), Reconfigurable Table Top Trainer (RT3): The PATRIOT Weapons System uses tactical equipment and training aids, devices, simulators, and simulations (TADSS) to conduct multi-level training for both operators and maintenance personnel. This includes both hardware devices and software programs utilized to include; the Patriot Maintenance Trainer (PMT), Reconfigurable Table Top Trainer (RT3) and the Patriot Multi-Echelon Training (PMET). The PMT is a new device being developed and planned for fielding to the Air Defense Artillery Schools at Fort Sill, OK. The PMT trains 14E, 14D, 94S and 948D 6D tasks. It reduces dependency on tactical equipment by merging physical simulators and virtual simulations replicating a realistic training environment. The PMT will have one instructor station, one radar set, one launching station, and an engagement control station. Some components will be actual physical representations of the tactical hardware while other components will be virtually simulated using state of the art gaming technology of P-MET. The two environments will work seamlessly together to simulate the tactical end items. P-MET is a Microsoft Windows based software application utilizing state of the art gaming technology to train U.S. Army personnel in the proper trouble-shooting techniques to repair and maintain the PATRIOT Missile System. P-MET is the Life Cycle Replacement for the PATRIOT Intermediate Maintenance Institutional Trainer (PIMIT) for Intermediate Maintenance training but is also used for Organizational, NET, and even Depot maintenance training. P-MET is used in an institutional, field and depot environment. P-MET is designed and developed to operate on the RT3. The RT3 provides a flexible training platform that may be configured to support multiple training levels and systems, via removable hard drives. In PATRIOT the RT3 is used to run the PATRIOT Skills Library (PSL) lessons for both maintenance and operator tasks. Other weapon systems may also use the RT3 pla

SIPRNet/NIPRNet Access Point/Troposcatter (SNAP/TROPO). The SNAP/TROPO program provides units with an organic Beyond Line of Sight (BLOS) capability and completes the 94 AAMDC UMR requirement to support both intra battalion and external battalion communications. Troposcatter terminals allow connectivity between PATRIOT shelters when local terrain or long distances make organic Ultra High Frequency (UHF) Line of Sight (LOS) communications impossible to support fire control quality data exchanges. SNAP terminals allow a PATRIOT shelter without access to any local infrastructure to remotely connect to both SIPRnet and NIPRnet using Ku, Ka, or X band satellites for range extension in response to Operational Need Statements from combatant commands.

Command Obsolescence Alleviation supports updates for interoperability and supportability by working obsolescence alleviation and engineering changes.

Communications Obsolescence: Task is to replace obsolete PATRIOT communications equipment that is no longer supportable, with modern communications equipment for four PATRIOT Battalions. The fielded PATRIOT communications architecture utilizes obsolete serial technology that is no longer producible or repairable. This process requires modernization at battalion (BN) level to prevent breaking intra-BN communications, addresses the BN specific architecture to facilitate modern external and external communications. These measures will provide an interim solution until transition to AIAMD system architecture is achieved.

The Radar Digital Processor-Configuration (RDP-C) replaces obsolete digital processors with single rack commercial off-the-shelf based modern processors. Battery Replaceable Units (BRUs) are reduced from 759 to 56 with 13 power supplies and 18 racks removed. Benefits of the RDP-C include improvement in radar reliability, life cycle cost savings, and capability and growth potential through software

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P-1 Line #18

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

0962C50700 / Patriot Mods

Modifications

Program Elements for Code B Items: N/A Other Related Program Elements: 0607865A

Line Item MDAP/MAIS Code: N/A

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

improvements. The RDP-C modification will enable full AN/TPX-57(v)1 Identification Friend or Foe (IFF) Mode 5 Level 1 and 2 and new Combat Identification capabilities. The enhanced IFF capability allows for expanded target reports from the AN/TPX-57 which will include: National Origin, Platform ID Number (PIN), and GPS position (Level 2). The RDP-C is a prerequisite for migration to an IAMD Netted Sensor. The RDP-C will support efforts to counter emerging threats and growth to the netted sensor concept. This effort includes funding for continued obsolescence mitigation (such as Digital Exciter), kits, and some spares.

Digital Sidelobe Canceller (DSLC) is an Electronic Counter Measures (ECM) technique used to cancel the interference that is entering the radar via the antenna sidelobes. This is currently being performed using analog hardware in the PATRIOT radar. DSLC replaces the analog hardware and performs this task digitally in the radars processor. Benefits of the DSLC include improved Side Lobe Canceller (SLC) Reliability and Maintainability, removal of complicated SLC adjustments, improves radar availability, removes 5 SLC Racks, provides hardware base for improved capability, and eliminates known and future obsolescence in SLC racks.

MAP/RDP Encryption Compliance: The operating systems in Modernized Adjunct Processor (MAP) and Radar Digital Processor (RDP) require upgrade and DoD level certification of the encryption algorithms that protect the contained Critical Program Information.

IFF Antenna Redesign: IFF antenna elements are not supportable. Upgrade circa 1970's design with new technology to mitigate obsolescence, reduce costs, and improve reliability.

Report Rocket Classification: The modern Air and Missile Defense environment contains a wide variety and large quantities of TBM and rocket threats. This task provides situational awareness for operators and allows for greater efficiency in management of interceptor inventories in the complex AMD environment.

The Enhanced Launcher Electronics System (ELES) modification upgrades a PAC-2 Launcher to a PAC-3 Capability. In addition to the ELES modification kit, last time procurement of obsolete components, and obsolescence mitigation (such as Data Link eXtensible- PATRIOT Fiber Optic Modem(DLX-P)) will occur to support the assured producibility of the ELES.

Seconda	ry Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539

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P-1 Line #18

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
- the character - and control to - and control to	P-1 Line Item Number / Title:	
2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:	0962C50700 / Patriot Mods	
Modifications		

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

Program Elements for Code B Items: N/A

Other Related Program Elements: 0607865A

Line Item MDAP/MAIS Code: N/A

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-3a	C50700 / Patriot Mods (Various)				- / 4,162.964	- / 323.228	- / 278.716	- / 278.050	- / -	- /278.050
P-40	Total Gross/Weapon System Cost				- / 4,162.964	- / 323.228	- / 278.716	- / 278.050	- 1 -	- / 278.050
	Exhibits Schedule				FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-3a	C50700 / Patriot Mods (Various)	•			- / 223.174	- / 232.559	- / 168.392	- / 178.539	Continuing	Continuing
P-40	Total Gross/Weapon System Cost				- / 223.174	- / 232.559	- / 168.392	- / 178.539	Continuing	Continuing

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

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

Justification:

FY2021 procurement dollars in the amount of \$278.050 million support the modifications for Reliability, Availability, and Maintainability Modifications (RAM Mods), Recapitalization (RECAP), Battery Command Post/ Tactical Command System/ Computer Software Module (BCP/TCS/CSM), Enhanced Launcher Electronics System (ELES), SIPRNet/NIPRNet Access Point/Troposcatter (SNAP/TROPO), PATRIOT Multi-Echelon Training (PMET), IFF Antenna Redesign, MAP/RDP Encryption, Report Rocket Classification, Communications Obsolescence, the IESP, system engineering, program management, and logistics support.

PATRIOT Mods supports and facilitates enhanced capabilities and integration into the Integrated Air and Missile Defense (IAMD) architecture.

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Exhibit P-3a, Individual Modification: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 03 / 10

Date: February 2020

Modification Number / Title:
0962C50700 / Patriot Mods

C50700 / Patriot Mods

ID Code (A=Service Ready, B=Not Service Ready)	:					MDAP/MA	IS Code:					
	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	4,162.964	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	4,162.964	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	4,162.964	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539	Continuing	Continuing
(The following	Resource Sumn	nary rows are fo	or informational p	urposes only. Th	e corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	46,774.876	8,506.000	14,669.263	27,805.000	-	27,805.000	-	-	-	-	Continuing	Continuing

Description:

The PATRIOT weapon system modernization program implements modifications to the weapon system and maintains Integrated Logistics Support. Required modifications are identified through various means, including the following: validated requirements documents such as Capability Production Documents and Operational Needs Statements; material changes identified in the PATRIOT Product Improvement Program (PIP); material deficiencies identified in the field; obsolescence issues; emerging technologies; software improvements; crew interface and communications upgrades.

Seconda	ry Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539
Total:	Quantity	-	=	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539

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Exhibit P-3a, Individual Modification:		<u> </u>	D 4 Line L	4 Nl la	/ Title.					ruary 2020		
Appropriation / Budget Activity / Budge 2032A / 03 / 10	et Sub Activ	vity:		tem Numb '00 / Patrio						i on Numb o Patriot Mod		
ID Code (A=Service Ready, B=Not Service Ready):					MD	AP/MAIS Co	ode:					
Models of Systems Affected: Various		Modifi	cation Typ	e: Various	,		Re	lated RDT	&E PEs:			
	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) Total Cost (\$										
Procurement	<u>'</u>											
Modification Item 1 of 25: Dismounted Information Coordination Central												
B Kits												
Non-Recurring												
Dismounted Information Coordination Cent	1 / 10.000	1 / 10.000	1 / 10.346	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / -	- 1 -	Continuing	Continuing
Subtotal: Non-Recurring	1 / 10.000	1 / 10.000	1 / 10.346	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Subtotal: Dismounted Information Coordination Central	1 / 10.000	1 / 10.000	1 / 10.346	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Modification Item 2 of 25: RAM Mods												
A Kits												_
Recurring												_
Kit Quantity	6,693 / 686.816	126 / 20.791	144 / 24.573	153 / 23.519	- 1 -	153 / 23.519	146 / 18.286	141 / 19.738	140 / 17.577	138 / 17.371	Continuing	Continuing
Training	- / 90.259	- / 15.749	- / 16.650	- / 16.656	- 1 -	- / 16.656	- / 16.294	- / 17.419	- / 17.620	- / 17.425	Continuing	Continuing
Training Equipment	- / 29.427	- /3.151	- / 3.331	- /3.332	- 1 -	- /3.332	- /3.460	- /3.485	- /4.000	- / 3.956	Continuing	Continuing
Support Equipment	- <i>I</i> 54.215	- /8.189	- /8.657	- /8.661	- 1 -	- / 8.661	- /8.993	- / 9.058	- / 9.085	- /8.985	Continuing	Continuing
Fielding Support and NET	- / 96.120	- / 13.860	- / 14.652	- / 14.658	- 1 -	- / 14.658	- /14.719	- / 15.329	- / 15.500	- / 15.329	Continuing	Continuing
Integrated Logistics Support	- <i>I</i> 12.028	- /1.260	- /1.332	- /1.332	- 1 -	- /1.332	- /1.383	- /1.393	- /1.400	- / 1.384	Continuing	Continuing
Subtotal: Recurring	6,693 / 968.865	126 / 63.000	144 / 69.195	153 / 68.158	- / -	153 / 68.158	146 / 63.135	141 / 66.422	140 / 65.182	138 / 64.450	Continuing	Continuing
Subtotal: RAM Mods	6,693 / 968.865	126 / 63.000	144 / 69.195	153 / 68.158	- / -	153 / 68.158	146 / 63.135	141 / 66.422	140 / 65.182	138 / 64.450	Continuing	Continuing
Modification Item 3 of 25: Recapitalization												_
A Kits												_
Recurring												
Kit Quantity	15 / 246.400	1 / 13.100	1 / 14.101	1 / 14.104	- 1 -	1 / 14.104	1 / 14.300	1 / 14.300	1 / 12.300	1 / 12.744	Continuing	Continuing
Integrated Logistics Support	- / 18.958	- <i>I</i> 1.100	- /1.100	- /1.100	- 1 -	- /1.100	- /1.200	- /1.200	- /1.200	- /1.200	Continuing	Continuing
Subtotal: Recurring	15 / 265.358	1 / 14.200	1 / 15.201	1 / 15.204	- / -	1 / 15.204	1 / 15.500	1 / 15.500	1 / 13.500	1 / 13.944	Continuing	Continuing
Subtotal: Recapitalization	15 / 265.358	1 / 14.200	1 / 15.201	1 / 15.204	- / -	1 / 15.204	1 / 15.500	1 / 15.500	1 / 13.500	1 / 13.944	Continuing	Continuing
Modification Item 4 of 25: BCP/TCS/CSM												_
A Kits												_
Recurring												
Engineering Change Orders	- /3.615	- 10.770	- /0.770	- /0.770	- 1 -	- /0.770	- /0.770	- /0.770	- /0.770	- /0.770	Continuing	Continuing
Fielding Support	- /5.939	- / 0.980	- / 0.980	- / 0.980	- 1 -	- / 0.980	- / 0.980	- / 0.980	- / 0.980	- / 0.980	Continuing	Continuing
Obsolescence/Tech Refresh	- / 1.293	- / 0.280	- / 0.280	- / 0.280	- 1 -	- / 0.280	- / 0.280	- / 0.280	- / 0.280	- / 0.280	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 03 / 10

Date: February 2020

Modification Number / Title:
0962C50700 / Patriot Mods

C50700 / Patriot Mods

2032A / 03 / 10			0962C50700 / Patriot Mods						C50700 / Patriot Mods			
D Code (A=Service Ready, B=Not Service Ready):			-		MD	AP/MAIS Co	ode:					
Models of Systems Affected: Various		Modif	ication Typ	pe: Various	;	_	Re	lated RDT	&E PEs:			
	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) Total Cost (\$										
Software/Systems Engineering	- /31.010	- / 0.980	- / 0.980	- / 0.980	- 1 -	- / 0.980	- / 0.980	- / 0.980	- / 0.980	- / 0.980	Continuing	Continuing
Integrated Logistics Support	- /50.190	- /3.990	- /3.990	- /3.990	- 1 -	- /3.990	- /3.990	- /3.990	- /2.990	- /3.990	Continuing	Continuing
Subtotal: Recurring	- /92.047	- /7.000	- /7.000	- /7.000	- / -	- /7.000	- /7.000	- /7.000	- /6.000	- /7.000	Continuing	Continuin
Non-Recurring												
BCP Kit Quantity	62 / 29.435	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	62 / 29.
TCS Kit Quantity	17 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	17 / 0.0
Subtotal: Non-Recurring	79 / 29.435	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	79 / 29.
Subtotal: BCP/TCS/CSM	79 / 121.482	- /7.000	- /7.000	- /7.000	- / -	- /7.000	- /7.000	- /7.000	- /6.000	- /7.000	Continuing	Continuing
Modification Item 5 of 25: Combined Crypto Modification Phase I (CCMPI)												-
A Kits												-
Recurring												
Kit Quantity	150 / 48.970	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	150 / 48.
Kit Quantity (GFE)	- /1.072	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /1.
Subtotal: Recurring	150 / 50.042	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	150 / 50.
Non-Recurring			-									
Training	- / 0.396	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /0.
Subtotal: Non-Recurring	- /0.396	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- /0.
Subtotal: Combined Crypto Modification Phase I (CCMPI)	150 / 50.438	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	150 / 50.
Modification Item 6 of 25: Radar Digital Processor - Configuration (RDP-C)		1			I			'				
A Kits												
Recurring												-
Kit Quantity	80 / 240.766	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	80 / 240.
Fielding	- /12.000	- /2.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 14.
Support Equipment	- /36.942	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 36.
Subtotal: Recurring	80 / 289.708	- /2.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	80 / 291.
Subtotal: Radar Digital Processor - Configuration (RDP C)	- 80 / 289.708	- /2.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	80 / 291.
Modification Item 7 of 25: Air Defense Artillery School Upgrades/ TADSS		•			•	'	'	,				
A Kits										,	,	*

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Exhibit P-3a, Individual Modification: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:

2032A / 03 / 10

Date: February 2020

Modification Number / Title:

0962C50700 / Patriot Mods

C50700 / Patriot Mods

MDAP/MAIS Code: ID Code (A=Service Ready, B=Not Service Ready): Modification Type: Various Related RDT&E PEs: Models of Systems Affected: Various FY 2021 FY 2021 FY 2021 То **Prior Years** FY 2019 FY 2020 oco Total FY 2022 FY 2023 FY 2024 FY 2025 Complete Base Total Qty (Each) I Total Cost (\$M) **Financial Plan** Recurring Radar Kit Quantity 4 / 96.000 - 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -4 / 96.000 4/96.000 - / -- / -- / -- / -- / -- / -- / -- / -- / -4/96.000 Subtotal: Recurring - / -4/96.000 - / -- / -- / -- / -- / -- / -- / -- / -- / -- / -4/96.000 Subtotal: Air Defense Artillery School Upgrades/ TADSS Modification Item 8 of 25: Modern Manstation (MMS) A Kits Recurring - 1 -Fielding - 17.825 - 1 -- 1 -- 1 -- 1 -- / -- 1 -- 1 -- 1 -- 1 -- 17.825 - /56.567 - 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- /56.567 Support Equipment - 1 -- 1 -- 1 -- 1 -- /64.392 - / -- / -- / -- / -- / -- / -- / -- / -- / -- /64.392 Subtotal: Recurring - / -Non-Recurring 82 / 55.842 82 / 55.842 Kit Quantity - 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -

Electronics System (ELES)												
A Kits												
Recurring												
Kit Quantity	308 / 353.927	38 / 145.278	19 / 73.191	10 / 40.717	- 1 -	10 / 40.717	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	375 / 613.113
Subtotal: Recurring	308 / 353.927	38 / 145.278	19 / 73.191	10 / 40.717	- / -	10 / 40.717	- / -	- / -	- / -	- / -	- / -	375 / 613.113
Subtotal: Enhanced Launcher Electronics System (ELES)	308 / 353.927	38 / 145.278	19 / 73.191	10 / 40.717	- / -	10 / 40.717	- / -	- / -	- / -	- / -	- / -	375 / 613.113

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82 / 55.842

82 / 120.234

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82 / 55.842

82 / 120.234

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Modification Item 10 of 25: SNAP/TROPO												
A Kits												
Recurring												
Kit Quantity SNAP	6 / 0.830	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	6 / 0.830
Support	- /5.811	- /1.115	- /1.115	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /8.041
Integrated Logistics Support	- 12.727	- / 0.633	- / 0.633	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /3.993
Training	- /0.171	- /0.002	- /0.002	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.175
Equipment	- / 0.859	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.859
Subtotal: Recurring	6 / 10.398	- /1.750	- /1.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 13.898
Non-Recurring												

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Subtotal: Non-Recurring

Subtotal: Modern Manstation (MMS)

Modification Item 9 of 25: Enhanced Launcher

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Exhibit P-3a, Individual Modification: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 03 / 10

Date: February 2020

Modification Number / Title:
0962C50700 / Patriot Mods

C50700 / Patriot Mods

ID Code (A=Service Ready, B=Not Service Ready): MDAP/MAIS Code: Related RDT&E PEs: Models of Systems Affected: Various **Modification Type:** Various FY 2021 FY 2021 FY 2021 То **Prior Years** FY 2019 FY 2020 OCO FY 2022 FY 2023 FY 2024 FY 2025 Base Total Complete Total Qtv (Each) I **Financial Plan** Total Cost (\$ M) Kit Quantity TROPO 26 / 12.884 - 1 -- 1 -- 1 -- 1 -26 / 12.884 26 / 12.884 - / -- / -- / -- / -- / -- / -- / -- / -- / -26 / 12.884 - / -Subtotal: Non-Recurring - / -- / -Subtotal: SNAP/TROPO 32 / 23.282 - /1.750 - /1.750 - / -- / -- / -- / -- / -- / -32 / 26.782 Modification Item 11 of 25: PATRIOT Maintenance Trainer (PMT) A Kits Recurring 5 / 72.941 1 / 15.000 1 / 19.500 - /8.000 - /8.000 Kit Quantity - 1 -- 1 -- 1 -- 1 -- /8.000 Continuing Continuing - / -- / -- / -- / -- /8.000 Subtotal: Recurring 5 / 72.941 1 / 15.000 1 / 19.500 - /8.000 - /8.000 Continuing Continuing Non-Recurring - /4.000 - 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- /4.000 Training Support - / -- / -- / -- /4.000 - / -- / -- / -- / -- / -- / -- / -- / -- / -- / -- /4.000 Subtotal: Non-Recurring 5 / 76.941 1 / 15.000 1 / 19.500 - / -- / -- / -- / -- /8.000 - /8.000 Subtotal: PATRIOT Maintenance Trainer (PMT) - /8.000 Continuina Continuing Modification Item 12 of 25: PATRIOT Multi-Echelon Training (PMET) A Kits Recurring Kit Quantity 16 / 21.180 4 / 5.000 4 / 7.000 4 / 7.000 - 1 -4 / 7.000 4 / 7.000 4 / 7.000 4 / 7.000 4 / 7.210 Continuing Continuina 16 / 21.180 4 / 5.000 4/7.000 4/7.000 - / -4/7.000 4/7.000 4/7.000 4/7.000 4/7.210 Subtotal: Recurring Continuing Continuing Subtotal: PATRIOT Multi-Echelon Training (PMET) 16 / 21.180 4/5.000 4/7.000 4/7.000 - / -4/7.000 4/7.000 4/7.000 4/7.000 4 / 7.210 Continuina Continuing Modification Item 13 of 25: Reconfigurable Table Top Trainers (RT3) A Kits Recurring Kit Quantity 489 / 31.338 - 1 -- 1 -- 1 -- 1 -- 1 -- / -- / -- 1 -- / -489 / 31.338 - 1 -489 / 31.338 - / -- / -- / -- / -- / -- / -- / -- / -489 / 31.338 Subtotal: Recurring - / -- / -- / -- / -- / -- / -- / -489 / 31.338 - / -- / -- / -489 / 31.338 Subtotal: Reconfigurable Table Top Trainers (RT3) Modification Item 14 of 25: Assured PNT A Kits Recurring Hardware Integration 798 / 3.000 - 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -798 / 3.000 - / -- / -- / -- / -- / -- / -- / -- / -- / -798 / 3.000 - / -798 / 3.000 Subtotal: Recurring

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Exhibit P-3a, Individual Modification: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 03 / 10

Date: February 2020

Modification Number / Title:
0962C50700 / Patriot Mods

C50700 / Patriot Mods

2032A / 03 / 10			0962C50700 / Patriot Mods							C50700 / Patriot Mods			
D Code (A=Service Ready, B=Not Service Ready):					MD	AP/MAIS C	ode:						
Models of Systems Affected: Various		Modifi	ication Typ	e: Various	i		Re	lated RDT	&E PEs:				
	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) Total Cost (\$											
Subtotal: Assured PNT	798 / 3.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	798 / 3.0	
Modification Item 15 of 25: Test Detachment												,	
A Kits													
Recurring													
Equipment	1 / 56.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 56.	
Subtotal: Recurring	1 / 56.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 56.	
Subtotal: Test Detachment	1 / 56.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 56.	
Modification Item 16 of 25: Digital Sidelobe Cancelle (DSLC)	r		1							1	1	J	
A Kits													
Recurring												-	
Kit Quantity	43 / 96.154	28 / 56.800	10 / 27.428	- 1 -	- / -	- 1 -	- 1 -	- / -	- / -	- 1 -	- 1 -	81 / 180	
Subtotal: Recurring	43 / 96.154	28 / 56.800	10 / 27.428	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	81 / 180	
Subtotal: Digital Sidelobe Canceller (DSLC)	43 / 96.154	28 / 56.800	10 / 27.428	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	81 / 180.	
Modification Item 17 of 25: Command Obsolescence Alleviation						ı	1		ı	1	'		
A Kits													
Recurring													
Command Obsolescnece Alleviation	- /5.000	- /2.000	- /1.989	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /8.	
Subtotal: Recurring	- /5.000	- /2.000	- /1.989	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- /8.	
Subtotal: Command Obsolescence Alleviation	- /5.000	- /2.000	- /1.989	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- /8.	
Modification Item 18 of 25: Communications Obsolescence							,					,	
A Kits													
Recurring													
Kits	- 1 -	- 1 -	1 / 20.906	1 / 30.684	- 1 -	1 / 30.684	2 / 35.678	1 / 29.000	- 1 -	- /9.225	Continuing	Continuing	
Subtotal: Recurring	- / -	- / -	1 / 20.906	1 / 30.684	- / -	1 / 30.684	2 / 35.678	1 / 29.000	- / -	- /9.225	Continuing	Continuin	
Subtotal: Communications Obsolescence	- / -	- / -	1 / 20.906	1 / 30.684	- / -	1 / 30.684	2 / 35.678	1 / 29.000	- / -	- /9.225	Continuing	Continuin	
Modification Item 19 of 25: 35th Brigade Modification Kits			1	ı		1	1		ı	1		J	
A Kits													
Non-Recurring													

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Exhibit P-3a, Individual Modification: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 03 / 10

Date: February 2020

Modification Number / Title:
0962C50700 / Patriot Mods

C50700 / Patriot Mods

2032A / 03 / 10			0962C50700 / Patriot Mods							C50700 / Patriot Mods			
D Code (A=Service Ready, B=Not Service Ready):					MD	AP/MAIS Co	ode:						
Models of Systems Affected: Various		Modifi	cation Typ	e: Various	;		Re	lated RDT	&E PEs:				
	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) Total Cost (\$											
Modification Kits	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	56 / 15.200	- 1 -	- 1 -	- 1 -	56 / 15.2	
Subtotal: Non-Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / -	56 / 15.200	- / -	- / -	- / -	56 / 15.2	
Subtotal: 35th Brigade Modification Kits	- / -	- / -	- / -	- / -	- / -	- / -	- / -	56 / 15.200	- / -	- / -	- / -	56 / 15.2	
Modification Item 20 of 25: ADI TPX 57 Obsolescence	e											J	
A Kits												-	
Non-Recurring													
ADI TPX	- 1 -	- / -	- 1 -	- 1 -	- / -	- 1 -	- / -	169 / 8.000	- / -	- 1 -	- / -	169 / 8.0	
Subtotal: Non-Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / -	169 / 8.000	- / -	- / -	- / -	169 / 8.0	
Subtotal: ADI TPX 57 Obsolescence	- / -	- / -	- / -	- / -	- / -	- / -	- / -	169 / 8.000	- / -	- / -	- / -	169 / 8.	
Modification Item 21 of 25: MAP/RDP Encryption Compliance												J	
A Kits													
Non-Recurring		-											
Certification	- 1 -	- 1 -	- / 11.999	- / 11.996	- 1 -	- / 11.996	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /23.	
Subtotal: Non-Recurring	- / -	- / -	- /11.999	- /11.996	- / -	- /11.996	- / -	- / -	- / -	- / -	- / -	- /23.	
Subtotal: MAP/RDP Encryption Compliance	- / -	- / -	- /11.999	- /11.996	- / -	- /11.996	- / -	- / -	- / -	- / -	- / -	- /23.	
Modification Item 22 of 25: IFF Antenna Redesign													
A Kits													
Non-Recurring													
Kits	- 1 -	- 1 -	18 / 8.000	9 / 4.000	- 1 -	9 / 4.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	27 <i>l</i> 12.	
Subtotal: Non-Recurring	- / -	- / -	18 / 8.000	9/4.000	- / -	9/4.000	- / -	- / -	- / -	- / -	- / -	27 / 12.	
Subtotal: IFF Antenna Redesign	- / -	- / -	18 / 8.000	9/4.000	- / -	9/4.000	- / -	- / -	- / -	- / -	- / -	27 / 12.	
Modification Item 23 of 25: Report Rocket Classification												,	
A Kits													
Non-Recurring													
Kits	- 1 -	- 1 -	- /4.011	- /6.000	- 1 -	- /6.000	- /6.000	- /8.000	- 1 -	- 1 -	- 1 -	- /24.	
Subtotal: Non-Recurring	- / -	- / -	- /4.011	- /6.000	- / -	- /6.000	- /6.000	- /8.000	- / -	- / -	- / -	- /24.	
Subtotal: Report Rocket Classification	- / -	- / -	- /4.011	- /6.000	- / -	- /6.000	- /6.000	- /8.000	- / -	- / -	- / -	- /24.	
Modification Item 24 of 25: International Engineering Services Program (IESP)			ı		ı		ı	ı	ı	1	1	J	
A Kits												-	

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Exhibit P-3a, Individual Modification: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:

2032A / 03 / 10

Date: February 2020

Modification Number / Title:

0962C50700 / Patriot Mods

C50700 / Patriot Mods

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

Models of Systems Affected: Various		Modifi	cation Typ	e: Various	i		Re	lated RDT	&E PEs:			
	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) Total Cost (\$										
Recurring												
International Engineering Services Prog	- 1 -	- 1 -	- 1 -	- /59.000	- 1 -	- / 59.000	- /60.000	- /40.000	- /40.410	- /40.410	Continuing	Continuing
Subtotal: Recurring	- / -	- / -	- / -	- /59.000	- / -	- /59.000	- /60.000	- /40.000	- /40.410	- /40.410	Continuing	Continuing
Subtotal: International Engineering Services Program (IESP)	- / -	- / -	- / -	- /59.000	- / -	- /59.000	- /60.000	- /40.000	- /40.410	- /40.410	Continuing	Continuing
Modification Item 25 of 25: Logistics Recurring												
A Kits												
Recurring												
Logistics Support	- 1 -	- 1 -	- 1 -	- /27.091	- 1 -	- <i>I</i> 27.091	- / 27.561	- 127.137	- /27.000	- /27.000	Continuing	Continuing
Subtotal: Recurring	- / -	- / -	- / -	- /27.091	- / -	- /27.091	- /27.561	- /27.137	- /27.000	- /27.000	Continuing	Continuing
Subtotal: Logistics Recurring	- / -	- / -	- / -	- /27.091	- / -	- /27.091	- /27.561	- /27.137	- /27.000	- /27.000	Continuing	Continuing
Subtotal: Procurement, All Modification Items	8,796 / 2,588.907	199 / 322.028	199 / 277.516	178 / 276.850	- / -	178 / 276.850	153 / 221.874	372 / 231.259	145 / 167.092	143 / 177.239	Continuing	Continuing
Installation												
Modification Item 2 of 25: RAM Mods	6,654 / 151.613	130 / -	137 / -	149 / -	- 1 -	149 / -	149 / -	144 / -	140 / -	- 1 -	Continuing	Continuing
Modification Item 3 of 25: Recapitalization	15 / 227.830	1 / 1.200	1 / 1.200	1 / 1.200	- 1 -	1 / 1.200	1 / 1.300	1 / 1.300	1 / 1.300	1 / 1.300	Continuing	Continuing
Modification Item 4 of 25: BCP/TCS/CSM	79 / 1,192.582	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
Modification Item 5 of 25: Combined Crypto Modification Phase I (CCMPI)	150 / 2.032	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
Subtotal: Installation	6,898 / 1,574.057	131 / 1.200	138 / 1.200	150 / 1.200	- / -	150 / 1.200	150 / 1.300	145 / 1.300	141 / 1.300	1 / 1.300	Continuing	Continuing
Total												
Total Cost (Procurement + Support + Installation)	4,162.964	323.228	278.716	278.050	-	278.050	223.174	232.559	168.392	178.539	Continuing	Continuing

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Modification Item 1 of 25: Dismounted Information Coordination Central Manufacturer Information Manufacturer Name: N/A Administrative Leadtime (in Months): Dates FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 FY 2024 FY 2025 Contract Dates Delivery Dates	Exhibit P-3a, Indivi	dual Modification: P	PB 2021 Army				Date: February 2020	
Manufacturer Information Manufacturer Name: N/A Administrative Leadtime (in Months): Dates FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 FY 2024 FY 2025 Contract Dates Delivery Dates Installation Information	Appropriation / Bu 2032A / 03 / 10	dget Activity / Budg	et Sub Activity:					
Manufacturer Information Manufacturer Name: N/A Administrative Leadtime (in Months): Production Leadtime (in Months): Dates FY 2019 FY 2020 FY 2021 FY 2023 FY 2024 FY 2025 Contract Dates Delivery Dates Installation Information	ID Code (A=Service Ready,	B=Not Service Ready):		1	MDAP/MAIS Co	ode:		
Manufacturer Name: N/A Administrative Leadtime (in Months): Production Leadtime (in Months): Dates FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 FY 2024 FY 2025 Contract Dates Delivery Dates Installation Information	Modification Item 1 of 2	5: Dismounted Information	Coordination Central					
Administrative Leadtime (in Months): Production Leadtime (in Months): Production Leadtime (in Months): FY 2019 FY 2020 FY 2021 FY 2023 FY 2024 FY 2025 Contract Dates Delivery Dates Installation Information	Manufacturer Informati	on						
Dates FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 FY 2024 FY 2025 Contract Dates Delivery Dates Installation Information	Manufacturer Name: N/A				Manufacturer Location: N/A	A		
Contract Dates Delivery Dates Installation Information	Administrative Leadtime	(in Months):			Production Leadtime (in M	lonths):		
Delivery Dates Installation Information	Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Installation Information	Contract Dates							
	Delivery Dates							
	Installation Information							
	Method of Implementat	ion (Organic): Engineering	Services (Included in u	ınit cost)		Installation C	Quantity: 0	
						·		

LI 0962C50700 - Patriot Mods Army

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10	P-1 Line Item Number / Title: 0962C50700 / Patriot Mods	Modification Number / Title: C50700 / Patriot Mods
		550.507.500.000

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

MDAP/MAIS Code:

Feb 2023

Modification Item 2 of 25: RAM Mods

Manufacturer Information

Manufacturer Name: Ray	theon			Manufacturer Location: Ar	ndover, MA		
Administrative Leadtime	(in Months): 2			Production Leadtime (in M	fonths): 14		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023	Dec 2024

Feb 2022

Installation Information

Delivery Dates

Method of Implementation: Lead Logistics Fielding Team (Included in unit cost)

Feb 2020

Feb 2021

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	6,654 / 151.613	64 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
FY 2019	- 1 -	66 / 0.000	65 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	131 / 0.000
FY 2020	- 1 -	- 1 -	72 / 0.000	72 <i>l</i> 0.000	- 1 -	72 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	144 / 0.000
FY 2021	- 1 -	- 1 -	- 1 -	77 / 0.000	- 1 -	77 / 0.000	76 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	153 / 0.000
FY 2022	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	73 / 0.000	73 / 0.000	- 1 -	- 1 -	- 1 -	146 / 0.000
FY 2023	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	71 / 0.000	70 / 0.000	- 1 -	- 1 -	141 / 0.000
FY 2024	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	70 / 0.000	- 1 -	- 1 -	70 / 0.000
FY 2025	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	70 / 0.000	70 / 0.000
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	6,535 / 0.000	6,535 / 0.000
Total	6,654 / 151.613	130 / 0.000	137 / 0.000	149 / 0.000	- 1 -	149 / 0.000	149 / 0.000	144 / 0.000	140 / 0.000	- 1 -	Continuing	Continuing

Installation Schedule

		_	FY 2	2019			FY 2	020			FY 2	021		,	FY 2	022			FY 2	2023			FY 2	2024			FY 2	025			
	PYS	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	тс	Tot
In	6,792	32	33	33	33	32	32	32	31	31	41	41	40	40	37	36	36	36	37	37	37	35	35	35	36	-	-	-	-	6,614	14,254
Out	6,723	32	32	33	33	33	32	32	32	31	31	41	41	40	40	37	36	36	36	37	37	35	35	35	36	-	-	-	-	6,688	14,254

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P-1 Line #18

Feb 2024

Feb 2025

Feb 2026

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10	P-1 Line Item Number / Title: 0962C50700 / Patriot Mods	Modification Number / Title: C50700 / Patriot Mods
2002/17/00/10	000200070077 atriot woods	O3070071 atriot Wods

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

MDAP/MAIS Code:

Modification Item 3 of 25: Recapitalization

Manufacture	Information
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manaraotaror miorina							
Manufacturer Name: Va	arious			Manufacturer Location: Va	arious		
Administrative Leadtime	e (in Months): 6			Production Leadtime (in N	lonths): 12		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Apr 2019	Apr 2020	Apr 2021	Apr 2022	Apr 2023	Apr 2024	Apr 2025
Delivery Dates	Apr 2020	Apr 2021	Apr 2022	Apr 2023	Apr 2024	Apr 2025	Apr 2026

Installation Information

Method of Implementation: Depot, PM Office, contractor team (Included in unit cost)

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	14 / 226.730	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
FY 2019	1 / 1.100	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
FY 2020	- 1 -	1 / 1.200	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
FY 2021	- 1 -	- 1 -	1 / 1.200	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
FY 2022	- 1 -	- 1 -	- 1 -	1 / 1.200	- 1 -	1 / 1.200	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
FY 2023	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 1.300	- 1 -	- 1 -	- 1 -	Continuing	Continuing
FY 2024	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 1.300	- 1 -	- 1 -	Continuing	Continuing
FY 2025	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 1.300	- 1 -	Continuing	Continuing
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 1.300	Continuing	Continuing
Total	15 / 227.830	1 / 1.200	1 / 1.200	1 / 1.200	- 1 -	1 / 1.200	1 / 1.300	1 / 1.300	1 / 1.300	1 / 1.300	Continuing	Continuing

Installation Schedule

			FY 2	2019			FY 2	2020			FY 2	2021			FY 2	2022			FY 2	2023			FY 2	2024	-		FY 2	025	-		
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot																				
In	15	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	11	32
Out	14	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	12	32

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Appropriation / Bu 2032A / 03 / 10	idget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pa			Modification Numb C50700 / Patriot Mod	
ID Code (A=Service Ready,	, B=Not Service Ready):			MDAP/MAIS C	Code:	,	
Modification Item 4 of	25: BCP/TCS/CSM						
Manufacturer Informat	ion						
Manufacturer Name: Vai	rious			Manufacturer Location: \	/arious		
Administrative Leadtime	(in Months):			Production Leadtime (in	Months):		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Various (Included in unit cost)

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	79 / 1,192.582	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
FY 2019	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2021	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2022	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2023	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2024	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2025	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	79 / 1,192.582	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing

Installation Schedule

			FY 2	2019			FY 2	2020			FY 2	2021	_		FY 2	2022			FY 2	2023			FY 2	2024			FY 2	2025			
	PYS	Q1	Q2	Q3	Q4	тс	Tot																								
In	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79
Out	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79

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Exhibit P-3a, Indiv	vidual Modification: P	B 2021 Army				Date: February 2020)
Appropriation / Bu 2032A / 03 / 10	udget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pa			Modification Numb C50700 / Patriot Mo	
ID Code (A=Service Ready	, B=Not Service Ready):			MDAP/MAIS C	Code:		
Modification Item 5 of	25: Combined Crypto Modifi	cation Phase I (CCMPI)	<u>. </u>			
Manufacturer Informat	tion						
Manufacturer Name: OC	GA .			Manufacturer Location: N	N/A		
Administrative Leadtime	(in Months): 3			Production Leadtime (in	Months): 12		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: LEAD Logistics Fielding Team (Included in unit cost)

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	150 / 2.032	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
FY 2019	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2021	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2022	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2023	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2024	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2025	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	150 / 2.032	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing

Installation Schedule

	FY 2019		FY 2	2020		FY 2021			FY 2022		FY 2023		FY 2024			FY 2025															
	PYS	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	тс	Tot
In	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150
Out	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150

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Exhibit P-3a, Indivi	dual Modification: P	B 2021 Army			Date: February 2020		
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budg	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pat		Modification Number / Title: C50700 / Patriot Mods		
ID Code (A=Service Ready,	B=Not Service Ready):		<u>'</u>	MDAP/MAIS Co	ode:		
Modification Item 6 of 2	5: Radar Digital Processor	- Configuration (RDP-C)				
Manufacturer Informati	on						
Manufacturer Name: Ray	rtheon			Manufacturer Location: An	ndover, MA		
Administrative Leadtime	(in Months): 8			Production Leadtime (in M	lonths): 20		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
	ion (Organic): Depot, PM	Office, contractor team (Included in unit cost)		Installation C	Quantity: 0	

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			01101	AGOII ILD						
Exhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020				
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pa		Modification Number / Title: C50700 / Patriot Mods					
D Code (A=Service Ready,	B=Not Service Ready):			MDAP/MAIS Co	ode:					
	5: Air Defense Artillery Sch	nool Upgrades/ TADSS								
lanufacturer Information	on									
Manufacturer Name: PM Office, contractor team Manufacturer Location: Various										
dministrative Leadtime	(in Months): 6			Production Leadtime (in M	fonths): 18					
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025			
ontract Dates										
elivery Dates										
stallation Information										
nstallation Information										
ethod of Implementati	ion (Organic): PM fielding	team			Installation (Quantity: 0				

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			0110	LAGOII ILD								
Exhibit P-3a, Individ	dual Modification: P	B 2021 Army				Date: February 2020	1					
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10			P-1 Line Item Nu 0962C50700 / Pa		Modification Number / Title: C50700 / Patriot Mods							
Code (A=Service Ready, B	B=Not Service Ready):			MDAP/MAIS Code:								
	5: Modern Manstation (MM	1S)										
anufacturer Informatio	on											
nufacturer Name: Rayt	heon			Manufacturer Location: Ar	ndover, MA							
Iministrative Leadtime (i	in Months): 6			Production Leadtime (in M	fonths): 15							
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025					
ontract Dates												
elivery Dates												
stallation Information												
ethod of Implementation	on (Organic): Various (Inc	cluded in unit cost)			Installation (Quantity: 0						

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			UNCL	ASSIFIED							
Exhibit P-3a, Indivi	dual Modification: P	PB 2021 Army				Date: February 2020					
Appropriation / Bud 2032A / 03 / 10	dget Activity / Budg	et Sub Activity:	P-1 Line Item Nui 0962C50700 / Pat			Modification Number / Title: C50700 / Patriot Mods					
ID Code (A=Service Ready, E	B=Not Service Ready):			MDAP/MAIS Co	de:	1					
Modification Item 9 of 2	5: Enhanced Launcher Ele	ectronics System (ELES)									
Manufacturer Information	on										
Manufacturer Name: Vari	ous			Manufacturer Location: Va	rious						
Administrative Leadtime (in Months): 3			Production Leadtime (in Months): 18							
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025				
Contract Dates	Dec 2018	Dec 2019	Dec 2020								
Delivery Dates	Jun 2020	Jun 2021	Jun 2022								
nstallation Information											
	on (Organic): Fielding Te	am (Included in unit cost)		Installation C	Quantity: 10					

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Exhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020					
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pat		Modification Number / Title: C50700 / Patriot Mods						
ID Code (A=Service Ready,	B=Not Service Ready) :		1	MDAP/MAIS Co	ode:						
Modification Item 10 of	25: SNAP/TROPO										
Manufacturer Information	on										
Manufacturer Name: Tele	eCommunication Systems ((TCS)		Manufacturer Location: Ta	ampa, FL						
Administrative Leadtime	(in Months): 1			Production Leadtime (in M	fonths): 9						
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025				
Contract Dates											
Delivery Dates											
Installation Information											
Method of Implementati	ion (Organic): Depot, PM,	contractor team			Installation 0	Quantity: 0					

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xhibit P-3a, Indiv	idual Modification: P	B 2021 Army				Date: February 2020)
appropriation / Bu 032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pa				
Code (A=Service Ready,	B=Not Service Ready):			MDAP/MAIS C	ode:		
odification Item 11 of	25: PATRIOT Maintenance	e Trainer (PMT)					
anufacturer Informati	on						
anufacturer Name: Ray	ytheon			Manufacturer Location: Te	ewksbury, MA		
dministrative Leadtime	(in Months): 4			Production Leadtime (in N	Months): 4		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
ontract Dates		Feb 2020			Feb 2023	Feb 2024	Feb 2025
elivery Dates		Jun 2020			Jun 2023	Jun 2024	Jun 2025

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	Salvani Maralifi 41 Di	D 0004 A				Doto: Fol 0000	`
	idual Modification: Pl	-				Date: February 2020	
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pat			Modification Numb C50700 / Patriot Mod	
D Code (A=Service Ready,	B=Not Service Ready):			MDAP/MAIS Co	ode:	1	
Modification Item 12 of	25: PATRIOT Multi-Echelor	n Training (PMET)					
/lanufacturer Informati	on						
Manufacturer Name: Ray	/theon			Manufacturer Location: Te	ewksbury, MA		
Administrative Leadtime	(in Months): 4			Production Leadtime (in M	fonths): 4		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Feb 2019	Feb 2020	Feb 2021	Feb 2022	Feb 2023	Feb 2024	Feb 2025
Delivery Dates	May 2019	May 2020	May 2021	May 2022	May 2023	May 2024	May 2025

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			ONOL	LAGGII ILD				
xhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020		
Appropriation / Bud 032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pa			Modification Number / Title: C50700 / Patriot Mods		
Code (A=Service Ready,	B=Not Service Ready):			MDAP/MAIS Code:				
	25: Reconfigurable Table 1	Top Trainers (RT3)						
anufacturer Information	on							
nufacturer Name: Ray	theon			Manufacturer Location: Te	ewksbury, MA			
Iministrative Leadtime	(in Months): 3			Production Leadtime (in M	fonths): 9			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	
ontract Dates	Dec 2018							
elivery Dates	Oct 2019							
stallation Information								
ethod of Implementati	ion (Organic): PM Office, (Contractor Team (Includ	led in unit cost)		Installation (Quantity: 0		

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Exhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020					
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Par			Modification Number C50700 / Patriot Mod					
ID Code (A=Service Ready,	B=Not Service Ready):		-	MDAP/MAIS Co	ode:						
Modification Item 14 of	25: Assured PNT										
Manufacturer Information	on										
Manufacturer Name: Ray	theon			Manufacturer Location: Tewksbury, MA							
Administrative Leadtime	(in Months): 4			Production Leadtime (in M	lonths): 14						
Dates FY 2019 FY 2020			FY 2021	FY 2022	FY 2023	FY 2024	FY 2025				
Contract Dates											
Delivery Dates											
Installation Information											
Method of Implementati	ion (Organic): Logistics Fi	elding Team (Included in	n unit cost)		Installation C	uantity: 0					

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Exhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020)			
Appropriation / Bud 2032A / 03 / 10	dget Activity / Budg	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pat			Modification Number / Title: C50700 / Patriot Mods				
ID Code (A=Service Ready, I	B=Not Service Ready):		<u>'</u>	MDAP/MAIS Co	ode:					
Modification Item 15 of	25: Test Detachment									
Manufacturer Information	on									
Manufacturer Name: Vari	ous			Manufacturer Location: Various						
Administrative Leadtime	(in Months): 4			Production Leadtime (in M	fonths): 8					
Dates	Dates FY 2019 FY 2020			FY 2022	FY 2023	FY 2024	FY 2025			
Contract Dates	act Dates									
Delivery Dates										
Installation Information										
Method of Implementati	on (Organic): WSMR PM	owned test bed personr	nel		Installation C	uantity: 0				

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xhibit P-3a, Indivi	dual Modification: F	PB 2021 Army				Date: February 2020)
appropriation / Bu 032A / 03 / 10	dget Activity / Budg	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pa			odification Number / Title: 50700 / Patriot Mods	
Code (A=Service Ready,	B=Not Service Ready):		·	MDAP/MAIS C	ode:	·	
odification Item 16 of	25: Digital Sidelobe Cance	eller (DSLC)					
anufacturer Informati	on						
anufacturer Name: Ray	rtheon			Manufacturer Location: To	ewkbury, MA		
dministrative Leadtime	(in Months): 3			Production Leadtime (in I	Months): 18		
Dates	FY 2019	FY 2020	FY 2021	FY 2022 FY 2023	FY 2024	FY 2025	
ontract Dates	Jan 2019	Jan 2020					
elivery Dates	Jul 2020	Jul 2021					
stallation Information							
ethod of Implementat	ion (Organic): Depot, PM	Office, Contractor Team	(Included in unit cost)		Installation	Quantity: 0	

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Exhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020)	
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pa			Modification Number / Title: C50700 / Patriot Mods		
ID Code (A=Service Ready,	B=Not Service Ready):		1	MDAP/MAIS Co	ode:			
Modification Item 17 of	25: Command Obsolescen	ce Alleviation						
Manufacturer Informati	on							
Manufacturer Name: Var	ious			Manufacturer Location: Various				
Administrative Leadtime	(in Months): 8			Production Leadtime (in M	fonths): 5			
Dates	Dates FY 2019 FY 2020			FY 2022	FY 2023	FY 2024	FY 2025	
Contract Dates								
Delivery Dates								
Installation Information								
	ion (Organic): PM Office, (Contractor Team (Includ	led in unit cost)		Installation C	Quantity: 0		
					·			

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xhibit P-3a, Indiv	idual Modification: P	B 2021 Army				Date: February 2020)
	dget Activity / Budge	*		P-1 Line Item Number / Title: 0962C50700 / Patriot Mods		Modification Number / Title: C50700 / Patriot Mods	
Code (A=Service Ready,	B=Not Service Ready):			MDAP/MAIS Co	ode:		
	25: Communications Obso	lescence					
lanufacturer Informat	ion						
lanufacturer Name: Ra	ytheon			Manufacturer Location: An	dover, MA		
dministrative Leadtime	(in Months): 3			Production Leadtime (in M	onths): 5		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
ontract Dates		Jan 2020	Jan 2021	Jan 2022	Jan 2023		Jan 2025
elivery Dates		Jun 2020	Jun 2021	Jun 2022	Jun 2023		Jun 2025
estallation Information					Installation	Quantity: 0	
					Installation	Quantity: 0	
					Installation	Quantity: 0	
					Installation	Quantity: 0	
					Installation	Quantity: 0	
					Installation	Quantity: 0	
					Installation	Quantity: 0	
					Installation	Quantity: 0	

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Exhibit P-3a, Indivi	dual Modification: F	B 2021 Army				Date: February 2020				
Appropriation / Bud 2032A / 03 / 10	dget Activity / Budg	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pat			Modification Number / Title: C50700 / Patriot Mods				
ID Code (A=Service Ready, I	B=Not Service Ready):		-	MDAP/MAIS Code:						
Modification Item 19 of	25: 35th Brigade Modificat	ion Kits								
Manufacturer Information	on									
Manufacturer Name: TBD)		Manufacturer Location: TBD							
Administrative Leadtime	in Months):			Production Leadtime (in M	lonths):					
Dates FY 2019 FY 2020			FY 2021	FY 2022	FY 2023	FY 2024	FY 2025			
Contract Dates										
Delivery Dates										
Installation Information										
Method of Implementati	on (Organic): TBD				Installation 0	Quantity: 0				

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Exhibit P-3a, Individ	dual Modification: P	B 2021 Army				Date: February 2020		
Appropriation / Buo 2032A / 03 / 10	lget Activity / Budge	et Sub Activity:	Activity: P-1 Line Item Number / Title: Modification Number / Title: 0962C50700 / Patriot Mods C50700 / Patriot Mods					
ID Code (A=Service Ready, B	B=Not Service Ready):			MDAP/MAIS Co	ode:			
Modification Item 20 of 2	25: ADI TPX 57 Obsolesce	nce						
Manufacturer Informatio	n							
Manufacturer Name: TBD			Manufacturer Location: TBD					
Administrative Leadtime (i	in Months):			Production Leadtime (in M	lonths):			
Dates				FY 2022	FY 2023	FY 2024	FY 2025	
Contract Dates								
Delivery Dates								
Installation Information								
Method of Implementation	on (Organic): TBD				Installation (Quantity: 0		

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Exhibit P-3a, Indivi	idual Modification: F	PB 2021 Army				Date: February 2020	
Appropriation / Bud 2032A / 03 / 10	dget Activity / Budg	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pa			Modification Number / Title: C50700 / Patriot Mods	
D Code (A=Service Ready,	B=Not Service Ready):			MDAP/MAIS Co	ode:	1	
Modification Item 21 of	25: MAP/RDP Encryption	Compliance					
lanufacturer Information	on						
lanufacturer Name: Ray	/theon			Manufacturer Location: An	idover, MA		
dministrative Leadtime	(in Months): 4			Production Leadtime (in M			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
ontract Dates		Jan 2020	Jan 2021				
elivery Dates		Jun 2020	Jun 2021				
stallation Information							
	ion (Organic): Contractor	Tagas (laglandad in weit a	ant) DM Fielding Toom		Installation C	huanditus O	

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xhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020)	
Appropriation / Bud 032A / 03 / 10	dget Activity / Budg	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pa				Modification Number / Title: C50700 / Patriot Mods	
Code (A=Service Ready,	B=Not Service Ready):		-	MDAP/MAIS C	Code:			
odification Item 22 of	25: IFF Antenna Redesign			_				
anufacturer Information	on							
anufacturer Name: Ray	theon			Manufacturer Location: A	Andover, MA			
dministrative Leadtime	(in Months): 4			Production Leadtime (in	Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	
ontract Dates		Jan 2020	Jan 2021					
elivery Dates		Feb 2021	Feb 2022					
stallation Information								

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Exhibit P-3a, Indiv	idual Modification: P	B 2021 Army				Date: February 2020)			
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nui 0962C50700 / Pat			Modification Number / Title: C50700 / Patriot Mods				
D Code (A=Service Ready,	B=Not Service Ready):		I	MDAP/MAIS Code:						
Modification Item 23 of	25: Report Rocket Classific	cation								
Manufacturer Informati	on									
Manufacturer Name: Ray	/theon			Manufacturer Location: Ar	ndover, MA					
dministrative Leadtime	(in Months): 4			Production Leadtime (in M	fonths): 5					
Dates	FY 2019 FY 2020 FY		FY 2021	FY 2022	FY 2023	FY 2024	FY 2025			
Contract Dates		Jan 2020	Jan 2021	Jan 2022	Jan 2023					
elivery Dates		Jun 2020	Jun 2021	Jun 2022	Jun 2023					
stallation Information										
Method of Implementat	ion (Organic): PM Fielding	Team (Included in Field	ding cost)		Installation C	Quantity: 0				

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Exhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020	
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 0962C50700 / Pat			Modification Number C50700 / Patriot Mod	
ID Code (A=Service Ready,	B=Not Service Ready):		-	MDAP/MAIS Co	ode:		
Modification Item 24 of	25: International Engineeri	ng Services Program (II	ESP)				
Manufacturer Information	on						
Manufacturer Name: Mul	tiple			Manufacturer Location: Va	arious		
Administrative Leadtime	(in Months):			Production Leadtime (in M	lonths):		
Dates				FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementati					Installation C	Quantity: 0	

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Exhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020		
Appropriation / Bud 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nui 0962C50700 / Pat			Modification Number / Title: C50700 / Patriot Mods		
ID Code (A=Service Ready, I	B=Not Service Ready):		1	MDAP/MAIS Co	ode:			
Modification Item 25 of	25: Logistics Recurring							
Manufacturer Information	on							
Manufacturer Name: Logi	stics			Manufacturer Location: Hu	ıntsville, AL			
Administrative Leadtime	(in Months):			Production Leadtime (in M	lonths):			
Dates				FY 2022	FY 2023	FY 2024	FY 2025	
Contract Dates								
Delivery Dates								
Installation Information								
Method of Implementati	on (Organic): Various				Installation C	Quantity: 0		

LI 0962C50700 - Patriot Mods Army UNCLASSIFIED
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Exhibit P-40, Budget Line Item Justification: PB 2021 Army

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

1823CA6700 / ATACMS MODS

Modifications

ID Code (A=Service Ready, B=Not Service Ready): Program Elements for Code B Items: N/A Other Related Program Elements: 0203802A

Line Item MDAP/MAIS Code: N/A

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	OCO	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	522.737	397.236	80.320	141.690	78.434	220.124	-	-	-	-	-	1,220.417
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	522.737	397.236	80.320	141.690	78.434	220.124	-	-	-	-	-	1,220.417
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	522.737	397.236	80.320	141.690	78.434	220.124	-	-	-	-	-	1,220.417
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	budget requests	s are documente	ed elsewhere.)	1			
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	1,138.861	1,171.788	1,070.933	1,034.234	1,120.486	1,063.401	-	-	-	-	-	1,130.016

Description:

ATACMS is the United States (U.S.) Army's primary 24/7, all weather, and surface-to-surface artillery precision missile used by current and future Combatant Commanders to shape the battlefield with long-range fires against hard and soft stationary targets in open, complex, and urban environments. The missile provides the Combatant Commanders with a 24/7 all-weather 300 kilometers (km) long-range fires capability to attack high-payoff, time-sensitive targets. ATACMS continues as the Commanders long range precision missile until fielding of the Army's objective system, Precision Strike Missile.

This procurement is related to the qualification program funded under Program Element (PE) 0203802A.

Block (BLK) I/IA missiles are aging beyond their service life and have warheads that are non-compliant with the Department of Defense (DoD) cluster munitions (CM) policy. This modification is performed as a Service Life Extension Program (SLEP) and will convert expired assets into Unitary HOB missiles with a reset 10 year service life. This modification replaces the existing M74 bomblets with a policy compliant unitary warhead, updates electronics and propellants, and adds a proximity sensor. This effort effectively brings the expired inventory back into service while meeting the DoD CM policy. Multi-mode seeker kits are also added for CD ATACMS missiles to engage moving maritime and land targets.

ATACMS modifications performed by Lockheed Martin Missiles and Fire Control, Grand Prairie, TX will stop production after FY 2021.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	397.236	80.320	141.690	78.434	220.124	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	397.236	80.320	141.690	78.434	220.124	-	-	-	-

UNCLASSIFIED

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

01102/10011 122

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

1823CA6700 / ATACMS MODS

Modifications

Program Elements for Code B Items: N/A

Other Related Program Elements: 0203802A

Date: February 2020

Line Item MDAP/MAIS Code: N/A

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

	Exhibits Schedule		,		Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title* Sut	ubexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-3a	CA6700 / ATACMS MODS (Unclassified)				- / 522.737	- / 397.236	- /80.320	- / 141.690	- / 78.434	- /220.124
P-40	Total Gross/Weapon System Cost				- / 522.737	- / 397.236	- / 80.320	- / 141.690	- / 78.434	- / 220.124
	Exhibits Schedule				FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type						Quantity / Total Cost (Each) / (\$ M)				
P-3a	CA6700 / ATACMS MODS (Unclassified)				- / -	- / -	- / -	- / -	- / -	- / 1,220.417
P-40 Total Gross/Weapon System Cost					- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /1,220.417

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

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

Justification:

FY 2021 Base procurement dollars in the amount of \$141.690 million and FY 2021 OCO procurement dollars in the amount of 78.434 million supports the modification of up to 202 total (126 Base & 76 OCO) expired Army Tactical Missile System (ATACMS) missiles into Unitary height-of-burst missiles with a reset 10 year service life. In response to a Land Based Anti-Ship Missile Operation Needs Statement (ONS 17-22222) to engage moving maritime and land targets, U.S. Army will utilize the ATACMS missile to provide a near-term capability to the Combatant Commands. Pending completion of an ongoing OSD demonstration project using the ATACMS missile to engage moving maritime and land targets, and milestone decision authority approval, multi-mode seeker kits will be procured for this modification to deliver Cross Domain ATACMS missiles. Procurement of the multi-mode seeker kit hardware and associated integration and checkout, if approved, would reduce the 202 total quantity down to a total quantity of 102. Modification tasks include download/de-mate of existing ATACMS missiles, pod update and refresh, obsolescence updated electronics & cables, re-grained propellant, unitary warhead, proximity sensor, and multi-mode seeker kits (if approved). Additional supporting tasks include bunker storage, follow-on production testing (FPT), Stockpile Reliability Program (SRP), production tooling, Government System Engineering/Program Management (SEPM), obsolescence, and software.

Other Non-Recurring costs include production tooling, obsolescence, and engineering changes.

Modification costs in FY 2021 include components, installation costs, and acceptance test in the unit price at the time of contract award.

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

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10	P-1 Line Item Number / Title: 1823CA6700 / ATACMS MODS	Modification Number / Title: CA6700 / ATACMS MODS

ID Code (A=Service Ready, B=Not Service Ready)	de (A=Service Ready, B=Not Service Ready):								MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total			
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-			
Gross/Weapon System Cost (\$ in Millions)	522.737	397.236	80.320	141.690	78.434	220.124	-	-	-	-	-	1,220.417			
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
Net Procurement (P-1) (\$ in Millions)	522.737	397.236	80.320	141.690	78.434	220.124	-	-	-	-	-	1,220.417			
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
Total Obligation Authority (\$ in Millions)	522.737	397.236	80.320	141.690	78.434	220.124	-	-	-	-	-	1,220.417			
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)															
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
Gross/Weapon System Unit Cost (\$ in Thousands)	1,138.861	1,171.788	1,070.933	1,034.234	1,120.486	1,063.401	-	-	-	-	-	1,130.016			

Description:

ATACMS is the United States (U.S.) Army's primary 24/7, all weather, and surface-to-surface artillery precision missile used by current and future Combatant Commanders to shape the battlefield with long-range fires against hard and soft stationary targets in open, complex, and urban environments. The missile provides the Combatant Commanders with a 24/7 all-weather 300 kilometers (km) long-range fires capability to attack high-payoff, time-sensitive targets. ATACMS continues as the Commanders long range precision missile until fielding of the Army's objective system, Precision Strike Missile.

This procurement is related to the qualification program funded under Program Element (PE) 0203802A.

Block (BLK) I/IA missiles are aging beyond their service life and have warheads that are non-compliant with the Department of Defense (DoD) cluster munitions (CM) policy. This modification is performed as a Service Life Extension Program (SLEP) and will convert expired assets into Unitary HOB missiles with a reset 10 year service life. This modification replaces the existing M74 bomblets with a policy compliant unitary warhead, updates electronics and propellants, and adds a proximity sensor. This effort effectively brings the expired inventory back into service while meeting the DoD CM policy. Multi-mode seeker kits are also added for CD ATACMS missiles to engage moving maritime and land targets.

ATACMS modifications performed by Lockheed Martin Missiles and Fire Control, Grand Prairie, TX will stop production after FY 2021.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	397.236	80.320	141.690	78.434	220.124	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	397.236	80.320	141.690	78.434	220.124	-	-	-	-

UNCLASSIFIED
Page 3 of 5

Exhibit P-3a, Individual Modification: P	B 2021 Arm	ıy							Date: February 2020				
Appropriation / Budget Activity / Budget 2032A / 03 / 10	Appropriation / Budget Activity / Budget Sub Activity: 032A / 03 / 10					P-1 Line Item Number / Title: 1823CA6700 / ATACMS MODS				ion Numb ATACMS I			
ID Code (A=Service Ready, B=Not Service Ready):					MD	AP/MAIS Co	ode:						
Models of Systems Affected: ATACMS		Modifi	cation Typ	e: Unclass	sified		Re	lated RDT	&E PEs:				
	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	
Procurement													
Modification Item 1 of 1: Unitary HOB													
A Kits													
Recurring													
Kit Quantity	459 / 360.689	339 / 315.168	75 / 61.661	126 / 116.678	76 / 64.622	202 / 181.300	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1,075 / 918.818	
Contractor/Government SEPM	- /36.362	- /22.242	- /5.160	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 63.764	
Government SEPM	- 1 -	- 1 -	- 1 -	- /2.111	- 1 -	- /2.111	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /2.111	
Subtotal: Recurring	459 / 397.051	339 / 337.410	75 / 66.821	126 / 118.789	76 / 64.622	202 / 183.411	- / -	- / -	- / -	- / -	- / -	1,075 / 984.693	
Non-Recurring													
Other Non-Recurring	- /66.432	- <i>1</i> 22.575	- /3.501	- /5.917	- /3.568	- / 9.485	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 101.993	
Subtotal: Non-Recurring	- /66.432	- / 22.575	- /3.501	- /5.917	- /3.568	- /9.485	- / -	- / -	- / -	- / -	- / -	- /101.993	
Subtotal: Unitary HOB	459 / 463.483	339 / 359.985	75 / 70.322	126 / 124.706	76 / 68.190	202 / 192.896	- / -	- / -	- / -	- / -	- / -	1,075 1,086.686	
Subtotal: Procurement, All Modification Items	459 / 463.483	339 / 359.985	75 / 70.322	126 / 124.706	76 / 68.190	202 / 192.896	- / -	- / -	- / -	- / -	- / -	1,075 / 1,086.686	
Installation													
Modification Item 1 of 1: Unitary HOB	459 / 59.254	339 / 37.251	75 / 9.998	126 / 16.984	76 / 10.244	202 / 27.228	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1,075 / 133.731	
Subtotal: Installation	459 / 59.254	339 / 37.251	75 / 9.998	126 / 16.984	76 / 10.244	202 / 27.228	- / -	- / -	- / -	- / -	- / -	1,075 / 133.731	
Total													
Total Cost (Procurement + Support + Installation)	522.737	397.236	80.320	141.690	78.434	220.124	-	-	-	-	-	1,220.417	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army	Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10	P-1 Line Item Number / Title: 1823CA6700 / ATACMS MODS	Modification Number / Title: CA6700 / ATACMS MODS
ID Code (A=Service Ready, B=Not Service Ready):	MDAP/MAIS Code:	

Modification Item 1 of 1: Unitary HOB

Manufacturer Information

Manufacturer Name: Lockl	heed Martin		Manufacturer Location: Ca	amden, AR		
Administrative Leadtime (ii	n Months): 2			Production Leadtime (in N	fonths): 17	

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

Installation Information

Method of Implementation: TBD

				FY 2021	FY 2021	FY 2021					То	
	Prior Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	459 / 59.254	- / -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / -	- 1 -	- 1 -	459 / 59.254
FY 2019	- 1 -	339 / 37.251	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	339 / 37.251
FY 2020	- 1 -	- 1 -	75 / 9.998	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	75 / 9.998
FY 2021	- 1 -	- 1 -	- 1 -	126 / 16.984	76 / 10.244	202 / 27.228	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	202 / 27.228
FY 2022	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2023	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2024	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2025	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	459 / 59.254	339 / 37.251	75 / 9.998	126 / 16.984	76 / 10.244	202 / 27.228	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1,075 / 133.731

Installation Schedule

		FY 2019				FY 2	2020			FY 2	2021			FY 2	2022			FY 2	2023			FY 2	2024			FY 2	025				
	PYS	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	TC	Tot
In	459	-	-	339	-	-	-	75	-	-	-	202	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,075
Out	-	-	39	40	40	40	75	75	75	75	84	85	85	85	19	19	19	18	51	51	50	50	-	-	-	-	-	-	-	-	1,075

UNCLASSIFIED

P-1 Line #19

168

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

1824C57701 / GMLRS MOD

Modifications

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

Line Item MDAP/MAIS Code: N/A

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

and term mean amount of the control													
	Prior			FY 2021	FY 2021	FY 2021					То		
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total	
Procurement Quantity (Units in Each)	2	1	14	-	-	-	-	-	-	-	Continuing	Continuing	
Gross/Weapon System Cost (\$ in Millions)	6.247	0.266	5.094	-	-	-	-	-	-	-	Continuing	Continuing	
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-	
Net Procurement (P-1) (\$ in Millions)	6.247	0.266	5.094	-	-	-	-	-	-	-	Continuing	Continuing	
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-	
Total Obligation Authority (\$ in Millions)	6.247	0.266	5.094	-	-	-	-	-	-	-	Continuing	Continuing	
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)					
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-	
Flyaway Unit Cost (\$ in Thousands)	=	-	-	-	-	-	-	-	-	-	-	-	
Gross/Weapon System Unit Cost (\$ in Thousands)	3,123.500	266.000	363.857	-	-	-	-	-	-	-	Continuing	Continuing	

Description:

LI 1824C57701 - GMLRS MOD

FY 2021 funding totals include \$0.0M for Base and \$0.0M for Overseas Contingency Operations (OCO).

This effort shall be complete in FY 2020. No further funding is required.

GMLRS rockets are surface-to-surface artillery rockets fired from the Multiple Launch Rocket System (MLRS) and High Mobility Artillery Rocket System (HIMARS) launchers. GMLRS rockets provide 24/7, all-weather precision fires to engage both area and point targets at short, medium, and long ranges.

The GMLRS Program currently consists of multiple variants: GMLRS Dual Purpose Improved Conventional Munition (DPICM) is a cluster munition that replaced the shorter range MLRS rockets to engage area or imprecisely located targets. GMLRS DPICM Production was terminated in response to the June 2008 Department of Defense (DoD) Cluster Munitions Policy. GMLRS Unitary utilizes a 200 pound high explosive warhead to engage point targets with limited collateral damage. GMLRS Alternative Warhead (AW) was developed as a non-cluster munition to engage the same target sets as DPICM. GMLRS Unitary and AW are currently in full rate production.

The U.S. Army manages all three variants as part of the GMLRS Program. This modification program along with all GMLRS rockets are produced on a common production line by Lockheed Martin in Camden, Arkansas

Secondary	/ Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	1	14	=	-	-	-	-	-	-
	Total Obligation Authority	0.266	5.094	-	-	-	-	-	-	-
Total:	Quantity	1	14	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	0.266	5.094	-	-	-	-	-	-	-

UNCLASSIFIED

P-1 Line #20

169

Exhibit P-40, Budget Line Item Justification	n: PB 2021 Army		Date: February 2020					
Appropriation / Budget Activity / Budget S 2032A: Missile Procurement, Army / BA 03: M Modifications	Modification of Missiles / BSA 10:	P-1 Line Item Number / Title: 1824C57701 / GMLRS MOD						
D Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code	B Items: N/A	Other Related Program Elements: N/A					
ine Item MDAP/MAIS Code: N/A								
Justification: No funds are requested for FY 2021.								

LI 1824C57701 - GMLRS MOD Army

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

2684C20000 / Stinger Mods

Modifications

Program Elements for Code B Items: N/A Other Related Program Elements: 0203801A

Line Item MDAP/MAIS Code: N/A

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	294.711	94.756	89.115	-	-	-	-	-	-	-	-	478.582
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	294.711	94.756	89.115	-	-	-	-	-	-	-	-	478.582
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	294.711	94.756	89.115	-	-	-	-	-	-	-	-	478.582
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Ti	he corresponding	g budget request	s are documente	ed elsewhere.)	1			
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	181.026	54.995	55.009	-	-	-	-	-	-	-	-	96.275

Description:

The Stinger Block I missile is an advanced, fire-and-forget, short-range, man-portable, shoulder-fired and platform mounted guided missile system that provides the maneuver force and point defense assets air defense protection. Stinger's mission is to provide the force with low-altitude air defense against Fixed Wing (FW) and Rotary Wing (RW) Aircraft, Unmanned Aircraft Systems (UAS) and Cruise Missiles (CM). The Stinger missile is deployable from a variety of platforms that includes vehicles, helicopters, UAS and Man Portable Air Defense System (MANPADS). The missile is delivered as a certified round and requires no field testing or maintenance.

The Service Life Extension Program (SLEP) is ongoing at McAlester Army Ammunition Plant to replace aging key components in existing Block I missiles to extend the current shelf life providing a more viable asset to the Army's inventory. The addition of a Proximity Fuze (PROX) capability in FY 2019 provided improved effectiveness against UAS threats by eliminating the need for hit to kill.

Seconda	ry Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	39.641	37.281	-	-	-	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	55.115	51.834	-	-	-	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	94.756	89.115	-	-	-	-	-	-	-

Justification:

The Stinger FY 2021 budget request is \$0.000 million.

In accordance with Section 1815 of the FY08 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

LI 2684C20000 - Stinger Mods

Army

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P-1 Line #21

Exhibit P-40, Budget Line Item Justification	n: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget St 2032A: Missile Procurement, Army / BA 03: M Modifications	ub Activity: lodification of Missiles / BSA 10:	P-1 Line Item Nu 2684C20000 / St	
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code	B Items: N/A	Other Related Program Elements: 0203801A
Line Item MDAP/MAIS Code: N/A			
•			

LI 2684C20000 - Stinger Mods Army

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

2690CE8710 / AVENGER MODS

Modifications

Program Elements for Code B Items: N/A Other Related Program Elements: 0203801A

Line Item MDAP/MAIS Code: N/A

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	161.230	31.093	14.107	13.942	-	13.942	11.381	-	-	-	-	231.753
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	161.230	31.093	14.107	13.942	-	13.942	11.381	-	-	-	-	231.753
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	161.230	31.093	14.107	13.942	-	13.942	11.381	-	-	-	-	231.753
(The following	Resource Sumi	mary rows are fo	r informational p	ourposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)	!			
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	_
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	144.861	43.426	-	-	-	-	-	-	-	-	-	126.710

Description:

Avenger is a lightweight, ground-to-air missile and gun weapon system mounted on a High Mobility Multi-purpose Wheeled Vehicle. The system protects against unmanned aircraft systems, cruise missiles, and fixed and rotary wing threats. Avenger provides day/night adverse weather operations, shoot on the move capability, rapid target engagement, and remote firing capability. It can be air dropped, lifted by helicopter and is air transportable. The system employs up to eight Stinger missiles to counter aerial threats and a M3P gun for close-in ground and air threats. An Identification Friend or Foe (IFF) system aids in the identification of friendly aircraft in order to minimize the potential for fratricide. The Avenger fleet of 453 systems includes 169 systems that are equipped with a digital Slew-to-Cue (STC) capability to speed target detection and engagement.

The Avenger Modification - Service Life Extension Program (MOD-SLEP) consists of Project 038: Avenger Production Improvement Program (PIP) and Program Element CE8710: Avenger MODS. The ongoing MOD-SLEP addresses obsolescence of Avenger components to ensure Avenger maintains operational capability through FY 2031. Five key MOD-SLEP components are: the Targeting Console (TC), the .50 Caliber Machine Gun (M3P), the Avenger Fire Control Computer (AFCC), the Mode 5 Identification Friend or Foe (IFF) and the Vehicle Internal Communications (VIC-5). Additional Obsolescence Mitigation Items include Avenger Organizational Maintenance Tool Kits, AN/PSM-95 Electronic Systems Test Set and the Avenger Remote Handheld Terminal Unit (RHTU) mounting kits.

The Avenger MOD-SLEP is fielded in two phases. Phase I fields the TC to 169 STC Avengers. Phase II fields the AFCC (169 STC Avengers), VIC-5 and the Mode 5 IFF. The M3P will be fielded through attrition. The TC and AFCC are fielded to the 169 STC Avenger variants only.

The Product Office will use FY 2021 funding to buy the Maintenance Tool Kits, AN/PSM-95 Electronic Systems Test Sets and RHTU mounting kits.

Second	dary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	12.437	14.107	13.942	-	13.942	11.381	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	18.656	-	-	-	-	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-

LI 2690CE8710 - AVENGER MODS

Army

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P-1 Line #22

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

2690CE8710 / AVENGER MODS

Modifications

Program Elements for Code B Items: N/A

Other Related Program Elements: 0203801A

Line Item MDAP/MAIS Code: N/A

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

				FY 2021	FY 2021	FY 2021				
Secondary Distri	ibution	FY 2019	FY 2020	Base	осо	Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution Total O	Obligation Authority	31.093	14.107	13.942	-	13.942	11.381	-	-	-

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LI 2690CE8710 - AVENGER MODS Army

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

2690CE8710 / AVENGER MODS

Modifications

Program Elements for Code B Items: N/A

Other Related Program Elements: 0203801A

Line Item MDAP/MAIS Code: N/A

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

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-3a	CE8710 / AVENGER MODS (Operational)		Α		- / 161.230	- / 31.093	- / 14.107	- / 13.942	- / -	- / 13.942
P-40	Total Gross/Weapon System Cost		- / 161.230	- / 31.093	- / 14.107	- / 13.942	- 1 -	- / 13.942		
	Exhibits Schedule				FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-3a	CE8710 / AVENGER MODS (Operational)		Α		- / 11.381	- / -	- / -	- / -	- / -	- /231.753
P-40	Total Gross/Weapon System Cost				- / 11.381	- 1 -	- 1 -	- 1 -	- 1 -	- / 231.753

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

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

Justification:

FY 2021 procurement dollars in the amount of \$13.942 million procures additional Obsolescence Mitigation Items, including 20 Avenger Organizational Maintenance Tool Kits, 70 AN/PSM-95 Electronic Systems Test Sets and 169 Avenger RHTU mounting kits with associated procurement support. Funding also provides for the fielding of the 453 Phase II MOD-SLEP kits, consisting of the AFCC, VIC-5 and IFF, with associated production and procurement support.

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

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Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10	P-1 Line Item Number / Title: 2690CE8710 / AVENGER MODS	Modification Number / Title: CE8710 / AVENGER MODS

ID Code (A=Service Ready, B=Not Service Ready)	: A					MDAP/MA	IS Code:					
	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	161.230	31.093	14.107	13.942	-	13.942	11.381	-	-	-	-	231.753
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	161.230	31.093	14.107	13.942	-	13.942	11.381	-	-	-	-	231.753
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	161.230	31.093	14.107	13.942	-	13.942	11.381	-	-	-	-	231.753
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)	•			
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	144.861	43.426	-	-	-	-	-	-	-	-	-	126.710

Description:

Avenger is a lightweight, ground-to-air missile and gun weapon system mounted on a High Mobility Multi-purpose Wheeled Vehicle. The system protects against unmanned aircraft systems, cruise missiles. and fixed and rotary wing threats. Avenger provides day/night adverse weather operations, shoot on the move capability, rapid target engagement, and remote firing capability. It can be air dropped, lifted by helicopter and is air transportable. The system employs up to eight Stinger missiles to counter aerial threats and a M3P gun for close-in ground and air threats. An Identification Friend or Foe (IFF) system aids in the identification of friendly aircraft in order to minimize the potential for fratricide. The Avenger fleet of 453 systems includes 169 systems that are equipped with a digital Slew-to-Cue (STC) capability to speed target detection and engagement.

The Avenger Modification - Service Life Extension Program (MOD-SLEP) addresses obsolescence of five key Avenger components to ensure Avenger maintains operational capability through FY 2031.

The Vehicle Internal Communications System is a required subsystem that allows communication between the gunner and driver. It also interfaces with the IFF and missile electronics resulting in improved IFF capabilities. The digital VIC-5 replaces the analog VIC-1 that is currently fielded with the Avenger.

The Avenger Fire Control Computer (AFCC) is a required subsystem of the Avenger Slew-to-Cue system that processes and displays air tracks data to the gunner. The current AFCC is not supportable through FY 2031. The AFCC will undergo software and hardware upgrades that will enable the system to handle increased targeting capability realized with the latest version of the FAAD early warning system, ensure the system meets the latest Information Assurance (IA) requirements, and allow for future growth in areas such as improved fire control/longer range engagements.

The Mode 5 IFF is required to replace the Mode 4 IFF, in order to comply with Department of Defense standards. Incorporation of Mode 5 IFF into Avenger is critical to retaining the cooperative target identification capability, allowing Avenger to remain relevant and effective in Air Defense and Homeland Defense missions. Mode 5 IFF quantities above 453 also support the Stinger Man Portable Air Defense System Initiative.

Additional Obsolescence Mitigation Items, in various quantities, support 453 Avenger systems and include Avenger Organizational Maintenance Tool Kits, AN/PSM-95 Electronic Systems Test Sets and Avenger Remote Handheld Terminal Unit (RHTU) mounting kits.

The Avenger MOD-SLEP is fielded in two phases. Phase I fields the TC to 169 STC Avengers. Phase II fields the AFCC (169 STC Avengers), VIC-5 and the Mode 5 IFF. The M3P will be fielded through attrition. The TC and AFCC are fielded to the 169 STC Avenger variants only.

In prior years, the Avenger MODS program also addressed the Slew-to-Cue upgrade, Targeting Consoles (TC) and M3P .50 CAL machine guns.

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LI 2690CE8710 - AVENGER MODS

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Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Modification Number / Title:
2032A / 03 / 10	2690CE8710 / AVENGER MODS	CE8710 / AVENGER MODS

ID Code (A=Service Read	ly, B=Not Service Ready):A				MDAP/MA	IS Code:				
Second	dary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	12.437	14.107	13.942	-	13.942	11.381	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	18.656	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	=	-	=	=	-	-
	Total Obligation Authority	31.093	14.107	13.942	-	13.942	11.381	-	-	-

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LI 2690CE8710 - AVENGER MODS Army

Exhibit P-3a, Individual Modification: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 03 / 10

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

Date: February 2020

Modification Number / Title:
2690CE8710 / AVENGER MODS

CE8710 / AVENGER MODS

Models of Systems Affected: Avenger Basic and Modification Type: Operational Related RDT&E PEs:

Slew-to-Cue Systems

				FY 2021	FY 2021	FY 2021	,				То	
	Prior Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)											
Procurement												
Modification Item 1 of 5: Prior Modifications												
A Kits												
Recurring												
Prior Year Modifications	466 / 66.337	- /0.722	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	466 / 67.059
Subtotal: Recurring	466 / 66.337	- /0.722	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	466 / 67.059
Subtotal: Prior Modifications	466 / 66.337	- /0.722	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	466 / 67.059
Modification Item 2 of 5: Vehicle Internal Communication (VIC-5)												
A Kits												
Recurring												
Hardware	454 / 4.327	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	454 / 4.327
Spares	- / 0.457	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.457
Engineering Services	- / 0.172	- / 0.017	- 1 -	- / 0.162	- / -	- / 0.162	- / 0.110	- / -	- / -	- / -	- 1 -	- / 0.461
Systems Engineering / Program Management	- /2.711	- / 0.104	- 1 -	- / 0.241	- 1 -	- <i>I</i> 0.241	- / 0.237	- 1 -	- 1 -	- 1 -	- 1 -	- /3.293
Fielding	- 1 -	- 1 -	- 1 -	- / 0.208	- 1 -	- / 0.208	- / 0.212	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.420
Subtotal: Recurring	454 / 7.667	- /0.121	- / -	- /0.611	- / -	- /0.611	- /0.559	- / -	- / -	- / -	- / -	454 / 8.958
B Kits												
Recurring												
Avenger to VIC 5 Cables	264 / 7.040	190 / 4.835	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	454 / 11.875
Spares	- / 0.704	- / 0.483	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 1.187
Engineering Services	- / 0.535	- / 0.282	- 1 -	- / 0.446	- 1 -	- / 0.446	- / 0.302	- 1 -	- 1 -	- 1 -	- 1 -	- /1.565
Systems Engineering / Program Management	- / 1.159	- / 0.293	- 1 -	- / 0.661	- 1 -	- / 0.661	- / 0.652	- 1 -	- 1 -	- 1 -	- 1 -	- /2.765
Fielding	- / 0.050	- 1 -	- 1 -	- / 0.571	- 1 -	- / 0.571	- / 0.583	- 1 -	- 1 -	- 1 -	- 1 -	- / 1.204
Subtotal: Recurring	264 / 9.488	190 / 5.893	- / -	- /1.678	- / -	- /1.678	- /1.537	- / -	- / -	- / -	- / -	454 / 18.596
Subtotal: Vehicle Internal Communication (VIC-5)	718 / 17.155	190 / 6.014	- / -	- /2.289	- / -	- /2.289	- /2.096	- / -	- / -	- / -	- / -	908 / 27.554
Modification Item 3 of 5: Mode 5/Identification Friend or Foe												
A Kits												
Recurring												
Equipment	301 / 25.560	223 / 18.984	61 / 5.670	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	585 / 50.214
Spares	- /2.555	- /1.898	- / 0.567	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /5.020

LI 2690CE8710 - AVENGER MODS Army UNCLASSIFIED
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Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Modification Number / Title:
2032A / 03 / 10	2690CE8710 / AVENGER MODS	CE8710 / AVENGER MODS

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

Models of Systems Affected: Avenger Basic and Modification Type: Operational Related RDT&E PEs:

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ A										
Engineering Services	- /1.571	- /1.191	- / 0.542	- /1.884	- 1 -	- /1.884	- /1.278	- 1 -	- 1 -	- 1 -	- 1 -	- /6.46
System Engineering / Program Management	- /8.945	- /1.241	- /1.479	- /2.795	- 1 -	- /2.795	- /2.756	- 1 -	- 1 -	- 1 -	- 1 -	- / 17.2 ⁻
Fielding	- / 0.010	- 1 -	- / 0.015	- /2.415	- 1 -	- /2.415	- /2.463	- 1 -	- 1 -	- 1 -	- 1 -	- /4.9
Subtotal: Recurring	301 / 38.641	223 / 23.314	61 / 8.273	- /7.094	- / -	- /7.094	- /6.497	- / -	- / -	- / -	- / -	585 / 83.8
Non-Recurring												
Non-Recurring Production	- / 10.197	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 10.19
Subtotal: Non-Recurring	- /10.197	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- /10.19
Subtotal: Mode 5/Identification Friend or Foe	301 / 48.838	223 / 23.314	61 / 8.273	- /7.094	- / -	- /7.094	- /6.497	- / -	- / -	- / -	- / -	585 / 94.0
Modification Item 4 of 5: Avenger Fire Control Computer												
A Kits												
Recurring												
Hardware	170 / 21.545	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	170 / 21.54
Spares	- /2.155	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /2.1
Engineering Services	- / 1.639	- / 0.511	- 1 -	- / 0.808	- 1 -	- /0.808	- / 0.549	- 1 -	- 1 -	- 1 -	- 1 -	- /3.50
Systems Engineering / Program Management	- /3.546	- / 0.532	- 1 -	- / 1.199	- 1 -	- /1.199	- /1.182	- 1 -	- 1 -	- 1 -	- 1 -	- /6.4
Fielding	- / 0.015	- 1 -	- 1 -	- /1.036	- 1 -	- /1.036	- /1.057	- 1 -	- 1 -	- 1 -	- 1 -	- /2.10
Subtotal: Recurring	170 / 28.900	- /1.043	- / -	- /3.043	- / -	- /3.043	- /2.788	- / -	- / -	- / -	- / -	170 / 35.77
Subtotal: Avenger Fire Control Computer	170 / 28.900	- /1.043	- / -	- /3.043	- / -	- /3.043	- /2.788	- / -	- / -	- / -	- / -	170 / 35.77
Modification Item 5 of 5: Obsolescence Mitigation Items												
A Kits												
Recurring												
Hardware	- 1 -	- 1 -	37 / 5.834	259 / 0.606	- 1 -	259 / 0.606	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	296 / 6.44
Engineering Services	- 1 -	- 1 -	- 1 -	- / 0.242	- 1 -	- / 0.242	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.24
Systems Engineering / Program Management	- 1 -	- 1 -	- 1 -	- / 0.358	- 1 -	- / 0.358	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.35
Fielding	- 1 -	- 1 -	- 1 -	- / 0.310	- 1 -	- /0.310	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /0.3
Subtotal: Recurring	- / -	- / -	37 / 5.834	259 / 1.516	- / -	259 / 1.516	- / -	- / -	- / -	- / -	- / -	296 / 7.35
Subtotal: Obsolescence Mitigation Items	- / -	- / -	37 / 5.834	259 / 1.516	- / -	259 / 1.516	- / -	- / -	- / -	- / -	- / -	296 / 7.35
ubtotal: Procurement. All Modification Items	1.655 / 161.230	413 / 31.093	98 / 14.107	259 / 13.942	- / -	259 / 13.942	- /11.381	- / -	- / -	- / -	- / -	2,425 / 231.75

Installation

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Exhibit P-3a, Individual Modification: PB 2021 ArmyAppropriation / Budget Activity / Budget Sub Activity:
2032A / 03 / 10P-1 Line Item Number / Title:
2690CE8710 / AVENGER MODSModification Number / Title:
CE8710 / AVENGER MODS

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

Models of Systems Affected: Avenger Basic andModification Type: OperationalRelated RDT&E PEs:

Slew-to-Cue Systems

,												
				FY 2021	FY 2021	FY 2021					То	
	Prior Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)											
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	161.230	31.093	14.107	13.942	-	13.942	11.381	-	-	-	-	231.753

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LI 2690CE8710 - AVENGER MODS Army

Exhibit P-3a, Individ	ual Modification: P	B 2021 Army				Date: February 2020					
Appropriation / Bud 2032A / 03 / 10	get Activity / Budge	et Sub Activity:	P-1 Line Item Nu 2690CE8710 / AV			Modification Number CE8710 / AVENGER					
ID Code (A=Service Ready, B=	=Not Service Ready) : A		•	MDAP/MAIS Co	ode:						
Modification Item 1 of 5:	Prior Modifications										
Manufacturer Information	n										
Manufacturer Name: Not A	pplicable			Manufacturer Location: Not Applicable							
Administrative Leadtime (iii	n Months):			Production Leadtime (in M	fonths):						
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025				
Contract Dates											
Delivery Dates											
Installation Information											
Method of Implementatio	n (Organic): Completed a	at Depot			Installation C	Quantity: 466					
					,						

LI 2690CE8710 - AVENGER MODS Army

Exhibit P-3a, Indivi	idual Modification: P	B 2021 Army				Date: February 2020			
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 2690CE8710 / AV			Modification Number CE8710 / AVENGER			
ID Code (A=Service Ready,	B=Not Service Ready) : A		'	MDAP/MAIS Co	ode:	I			
	5: Vehicle Internal Commun	ication (VIC-5)							
Manufacturer Information	on								
Manufacturer Name: Nor	throp Grumman			Manufacturer Location: To	obyhanna, PA				
Administrative Leadtime	(in Months): 1			Production Leadtime (in N	fonths): 9				
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
Contract Dates									
Delivery Dates									
Installation Information									
Method of Implementat	ion (Organic): Fielded by I	Depot with Phase II kit			Installation (Quantity: 453			

LI 2690CE8710 - AVENGER MODS Army

			UNCL	ASSIFIED							
Exhibit P-3a, Indiv	idual Modification: P	B 2021 Army				Date: February 2020)				
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 2690CE8710 / AV			Modification Number / Title: CE8710 / AVENGER MODS					
ID Code (A=Service Ready,	B=Not Service Ready) : A		'	MDAP/MAIS (Code:						
Modification Item 3 of	5: Mode 5/Identification Frie	nd or Foe									
Manufacturer Informat	ion										
Manufacturer Name: Ra	ytheon			Manufacturer Location: L	Largo, FL						
Administrative Leadtime	(in Months): 4			Production Leadtime (in Months): 12							
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025				
Contract Dates	Apr 2019	Apr 2020									
Delivery Dates	Jan 2022	Jan 2023									

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			UNCI	_ASSIFIED			
Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
Appropriation / Bud 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Number / Title: 2690CE8710 / AVENGER MODS			Modification Number / Title: CE8710 / AVENGER MODS	
ID Code (A=Service Ready, I	B=Not Service Ready): A		<u>'</u>	MDAP/MAIS C	ode:	1	
Modification Item 4 of 5	: Avenger Fire Control Cor	nputer					
Manufacturer Information	on						
Manufacturer Name: Boeing				Manufacturer Location: Huntsville, AL			
Administrative Leadtime (in Months): 1				Production Leadtime (in Months): 9			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Oct 2018						
Delivery Dates	May 2020						
Installation Information	i on (Organic): Fielded by I						

LI 2690CE8710 - AVENGER MODS Army UNCLASSIFIED
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			UNCL	.ASSIFIED							
Exhibit P-3a, Indivi	idual Modification: Pl	B 2021 Army				Date: February 2020)				
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:		P-1 Line Item Number / Title: 2690CE8710 / AVENGER MODS			Modification Number / Title: CE8710 / AVENGER MODS				
D Code (A=Service Ready,	B=Not Service Ready) : A			MDAP/MAIS C	ode:						
Modification Item 5 of 5	5: Obsolescence Mitigation I	tems									
Manufacturer Information	on										
Manufacturer Name: Var	ies			Manufacturer Location: Varies							
Administrative Leadtime	(in Months): 6			Production Leadtime (in N	Months): 6						
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025				
Contract Dates		Jul 2020	Jul 2021								
Delivery Dates		Jul 2021	Jul 2022								
Installation Information											
	ion (Organic): Fielded by D	\t			Installation C	Aventitus 400					

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LI 2690CE8710 - AVENGER MODS Army

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

3972C61700 / ITAS/TOW Mods

Modifications

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

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

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-		-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,792.822	3.173	3.469	5.666	-	5.666	-	-	-	-	-	1,805.130
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-		-	-
Net Procurement (P-1) (\$ in Millions)	1,792.822	3.173	3.469	5.666	-	5.666	-	-	-	-	-	1,805.130
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,792.822	3.173	3.469	5.666	-	5.666	-	-	-	-	-	1,805.130
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	g budget request	s are documente	ed elsewhere.)	Ť	*		
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	- [-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	68,954.692	132.208	138.760	153.135	-	153.135	-	-	-	-	-	16,117.232

Description:

The Improved Target Acquisition System (ITAS) with Far Target Location (FTL) is a combat proven system that provides long-range, lethal anti-armor and precision assault fires capability for Active Component and Army National Guard Infantry Brigade Combat Teams (IBCT) and Stryker Brigade Combat Teams (SBCT) equipped with Modified ITAS (MITAS) across the spectrum of contemporary operational environments. ITAS with the TOW Missile provides the capability to defeat armored vehicles, bunkers, and buildings at extended ranges in all battlefield conditions. ITAS's superior surveillance capability also enables the Soldier to shape the battlefield by detecting targets at long range and either engaging with TOW missiles or other weapon systems to destroy those targets with its ability to generate a 10 digit grid coordinate of a target location. The ITAS completed fielding to the total Army in December 2012. ITAS continues to be the weapon of choice in precision combat engagements. The TOW Weapon System includes the ITAS launcher and TOW Missiles.

		1					· · · · · · · · · · · · · · · · · · ·			
Sacandar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondar	y Distribution	F1 2019	F1 2020	Dase	000	IOlai	F1 2022	F1 2023	F1 2024	F1 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.173	3.469	3.166	-	3.166	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	2.500	-	2.500	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	3.173	3.469	5.666	-	5.666	-	-	-	-

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

3972C61700 / ITAS/TOW Mods

Modifications

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

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

	Exhibits Schedule		,		Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	bit ID MAI		MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)						
P-3a				- / 1,792.822	- /3.173	- /3.469	- / 5.666	- / -	- / 5.666	
P-40	Total Gross/Weapon System Cost		- / 1,792.822	- / 3.173	- / 3.469	- / 5.666	- 1 -	- / 5.666		
	Exhibits Schedule		FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total		
Exhibit Type	Title* Sub	Quantity / Total Cost (Each) / (\$ M)								
P-3a	C61700 / ITAS/TOW Mods (NA)				- / -	- / -	- / -	- / -	- / -	- / 1,805.130
P-40 Total Gross/Weapon System Cost					- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 1,805.130

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

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

Justification:

FY2021 funding totals include \$5.666 Million in Base to procure 37 Common Processor Kits for the Modified ITAS (MITAS) in the Stryker Anti-Tank Guided Missile (Stryker ATGM) vehicle. This procurement will field a single configuration across the US Army ITAS and MITAS fleets. The funding also includes the installation and program management cost. Once installation completes, the entire ITAS / MITAS fleet within the Army's Infantry Brigade Combat Team (IBCT) and Stryker Brigade Combat Teams (SBCT) will have a single configuration.

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

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Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10	P-1 Line Item Number / Title: 3972C61700 / ITAS/TOW Mods	Modification Number / Title: C61700 / ITAS/TOW Mods

ID Code (A=Service Ready, B=Not Service Ready):						MDAP/MA	IS Code:					
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,792.822	3.173	3.469	5.666	-	5.666	-	-	-	-	-	1,805.130
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,792.822	3.173	3.469	5.666	-	5.666	-	-	-	-	-	1,805.130
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,792.822	3.173	3.469	5.666	-	5.666	-	-	-	-	-	1,805.130
(The following	Resource Sumr	nary rows are fo	r informational p	urposes only. Th	ne correspondin	g budget request	s are documente	ed elsewhere.)	•	:		
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	68,954.692	132.208	138.760	153.135	-	153.135	-	-	-	-	-	16,117.232

Description:

The Improved Target Acquisition System (ITAS) with Far Target Location (FTL) is a combat proven system that provides long-range, lethal anti-armor and precision assault fires capability for Active Component and Army National Guard Infantry Brigade Combat Teams (IBCT) and Stryker Brigade Combat Teams (SBCT) equipped with Modified ITAS (MITAS) across the spectrum of contemporary operational environments. ITAS with the TOW Missile provides the capability to defeat armored vehicles, bunkers, and buildings at extended ranges in all battlefield conditions. ITAS's superior surveillance capability also enables the Soldier to shape the battlefield by detecting targets at long range and either engaging with TOW missiles or other weapon systems to destroy those targets with its ability to generate a 10 digit grid coordinate of a target location. The ITAS completed fielding to the total Army in December 2012. ITAS continues to be the weapon of choice in precision combat engagements.

FY2021 funding totals include \$5.666 Million in Base to procure 37 Common Processor Kits for the Modified ITAS (MITAS) in the Stryker Anti-Tank Guided Missile (Stryker ATGM) vehicle. This procurement will field a single configuration across the US Army ITAS and MITAS fleets. The funding also includes the installation and program management cost. Once installation completes, the entire ITAS / MITAS fleet within the Army's Infantry Brigade Combat Team (IBCT) and Stryker Brigade Combat Teams (SBCT) will have a single configuration.

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.

Second	dary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.173	3.469	3.166	-	3.166	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	2.500	-	2.500	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	3.173	3.469	5.666	-	5.666	=	=	-	=

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Exhibit P-3a, Individual Modification: P	B 2021 Arm	ıy							Date: Feb	ruary 2020)	
Appropriation / Budget Activity / Budge 2032A / 03 / 10	et Sub Acti	vity:	_	tem Numb 700 / ITAS/7		6				ion Numbe		
ID Code (A=Service Ready, B=Not Service Ready):			•		MD	AP/MAIS Co	de:		'			
Models of Systems Affected: NA		Modif	ication Typ	oe: NA	'		Re	lated RDT	&E PEs:			
	Prior Years	FY 2021 or Years FY 2019 FY 2020 Base		-	FY 2021 FY 2021 OCO Total		1 FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ I
Procurement										·		
Modification Item 1 of 1: ITAS (IMPROVED TARGET ACQUISITION SYSTEM)												
B Kits												
Recurring												
Kit Production	- / 1,412.925	24 / 2.831	25 / 3.109	37 / 5.231	- 1 -	37 / 5.231	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	86 / 1,424.09
Fielding	- / 82.591	- 1 -	- / 0.063	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 82.6
Subcomponents	- / 0.302	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.30
Data	- /3.097	- 1 -	- 1 -	- 1 -	- / -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /3.09
Subtotal: Recurring	- /1,498.915	24 / 2.831	25 / 3.172	37 / 5.231	- / -	37 / 5.231	- / -	- / -	- / -	- / -	- / -	86 / 1,510.1
Non-Recurring												,
Project Management	- / 125.067	- / 0.312	- /0.297	- /0.388	- 1 -	- /0.388	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 126.06
Training Equipment	- /86.715	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /86.7
Prior Equipment - Kits	- / 82.125	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 82.12
Subtotal: Non-Recurring	- /293.907	- /0.312	- /0.297	- /0.388	- / -	- /0.388	- / -	- / -	- / -	- / -	- / -	- /294.90
Subtotal: ITAS (IMPROVED TARGET ACQUISITION SYSTEM)	- /1,792.822	24 / 3.143	25 / 3.469	37 / 5.619	- / -	37 / 5.619	- / -	- / -	- / -	- / -	- / -	86 / 1,805.08
Subtotal: Procurement, All Modification Items	- /1,792.822	24 / 3.143	25 / 3.469	37 / 5.619	- / -	37 / 5.619	- / -	- / -	- / -	- / -	- / -	86 / 1,805.05
Installation												
Modification Item 1 of 1: ITAS (IMPROVED TARGET ACQUISITION SYSTEM)	- 1 -	24 / 0.030	- 1 -	37 / 0.047	- 1 -	37 / 0.047	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	61 / 0.07
Subtotal: Installation	- / -	24 / 0.030	- / -	37 / 0.047	- / -	37 / 0.047	- / -	- / -	- / -	- / -	- / -	61 / 0.07
Total												
Total Cost (Procurement + Support + Installation)	1,792.822	3.173	3,469	5.666	_	5.666	-	_	_		_	1,805.13

LI 3972C61700 - ITAS/TOW Mods
Army

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10	P-1 Line Item Number / Title: 3972C61700 / ITAS/TOW Mods		Modification Number / Title: C61700 / ITAS/TOW Mods
ID Code (A=Service Ready, B=Not Service Ready):	MDA	DAP/MAIS Code:	

Modification Item 1 of 1: ITAS (IMPROVED TARGET ACQUISITION SYSTEM)

Manufacturer Information	Manu	factui	rer In	forma	ition
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Manufacturer Name: Raytheon Network Centric Systems Company	Manufacturer Location: McKinney, TX
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 12

rammonanto Edadimo (r	in monthly: 1			i readotteri Ecadtiirie (iii ii	1011(110): 12		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Mar 2019	Mar 2020	Mar 2021				
Delivery Dates	Mar 2020	Mar 2021	Mar 2022				

Installation Information

Method of Implementation: Contract

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	- 1 -	12 / 0.015	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	12 / 0.015
FY 2021	- 1 -	12 / 0.015	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	12 / 0.015
FY 2022	- 1 -	- 1 -	- 1 -	18 / 0.023	- 1 -	18 / 0.023	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	18 / 0.023
FY 2023	- 1 -	- 1 -	- 1 -	19 / 0.024	- 1 -	19 / 0.024	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	19 / 0.024
FY 2024	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2025	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	- 1 -	24 / 0.030	- 1 -	37 / 0.047	- 1 -	37 / 0.047	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	61 / 0.077

Installation Schedule

- 1				-																												
		FY 2019 FY 2020						FY 2	2021			FY 2	2022			FY 2	2023			FY 2	024			FY 2	025							
		PYS	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	TC	Tot
	n	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	9	9	10	-	-	-	-	-	-	-	-	-	-	-	37
[Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	9	9	10	-	-	-	-	-	-	-	-	-	-	-	37

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

6552C67500 / MLRS Mods

Modifications

Program Elements for Code B Items: N/A Other Related Program Elements: 0603778A

Line Item MDAP/MAIS Code: N/A

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

The Rell MDAI /MAIO GOGE. N/A													
	Prior			FY 2021	FY 2021	FY 2021					То		
Resource Summary	Years	FY 2019	FY 2020	Base	осо	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total	
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-	
Gross/Weapon System Cost (\$ in Millions)	606.945	478.998	372.550	310.419	20.000	330.419	277.623	207.159	165.712	165.062	Continuing	Continuing	
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	=	-	-	-	-	
Net Procurement (P-1) (\$ in Millions)	606.945	478.998	372.550	310.419	20.000	330.419	277.623	207.159	165.712	165.062	Continuing	Continuing	
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-	
Total Obligation Authority (\$ in Millions)	606.945	478.998	372.550	310.419	20.000	330.419	277.623	207.159	165.712	165.062	Continuing	Continuing	
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	budget request	s are documente	d elsewhere.)					
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-	
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-	
Gross/Weapon System Unit Cost (\$ in Thousands)	12,644.688	6,942.000	4,005.914	7,760.475	10,000.000	7,867.119	25,238.455	9,416.318	8,285.600	8,253.100	Continuing	Continuing	

Description:

The M270A1 Multiple Launch Rocket System (MLRS) launcher is a full-spectrum, combat-proven, all-weather, 24/7 lethal and responsive, precision strike weapon system. MLRS provides critical missile precision strike, operational shaping fires, counterfire, and close support destructive and suppressive fires. MLRS is a tracked, indirect fire, rocket/missile launcher capable of firing two pods of precision rockets/missiles from the current and emerging Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM), to include the Extended Range Guided Multiple Launch Rocket System (ER GMLRS), the Army Tactical Missile System (ATACMS), and the Precision Strike Missile (PrSM).

In FY2017, the Army directed the program office to modernize 160 obsolete, unserviceable MLRS M270A0s to M270A2s in an effort called MLRS Fleet Expansion. In addition to MLRS Fleet Expansion, the Army decided to extend the operational life of the existing M270A1 fleet to FY2050 or beyond, which drives the requirement to upgrade the current fleet of 225 M270A1 launchers to the M270A2 configuration. The end state is 385 MLRS launchers with Improved Armored Cabs (IAC), Bradley commonality improvements, and Common Fire Control System (CFCS). Upon integration of the IAC Modification Kit on a M270A1, the launcher permanently becomes an M270A2.

Mod 1 (MLRS Fleet Expansion). The Fleet Expansion effort will modernize 160 MLRS M270A0s to M270A2s through a Public Private Partnership. The prime contractor and Red River Army Depot (RRAD) will rebuild and provide selective upgrades to include, IAC, Bradley commonality improvements, and CFCS.

Mod 2 (MLRS Fleet Upgrade). The MLRS Fleet upgrade effort will follow the same rebuild process and selective upgrades as the Fleet Expansion effort, by upgrading the current fleet of M270A1 launchers to M270A2 with IAC, Bradley Commonality and CFCS. Upon integration of the IAC Modification Kit on a M270A1, the launcher permanently becomes a M270A2. This upgrade effort will extend the operational life of these launchers to FY2050 and beyond.

Mod 3 (Improved Armored Cab). The Improved Armored Cab (IAC) Modification Kit provides crew survivability against Improvised Explosive Devices (IEDs) and small arms fire greater than or equal to the High Mobility Artillery Rocket System (HIMARS) Increased Crew Protection Cab (ICP). Additionally, IAC standardizes crew drill requirements between HIMARS and MLRS operators. Upon integration of the IAC Modification Kit on a M270A1, the launcher permanently becomes a M270A2. Integration of the IAC is performed by RRAD under a Public Private Partnership as part of the MLRS Fleet Expansion effort.

The current Army Acquisition Objective is 225 MLRS launchers. The end state Army Acquisition Objective after Fleet Expansion will be 385 M270A2 MLRS launchers.

LI 6552C67500 - MLRS Mods
Army

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Page 1 of 10
P-1 Line #24

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

6552C67500 / MLRS Mods

Modifications

Program Elements for Code B Items: N/A

Other Related Program Elements: 0603778A

Line Item MDAP/MAIS Code: N/A

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

Seconda	ry Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	478.998	372.550	301.055	20.000	321.055	266.537	207.159	165.712	165.062
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	9.364	-	9.364	11.086	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	478.998	372.550	310.419	20.000	330.419	277.623	207.159	165.712	165.062

LI 6552C67500 - MLRS Mods

Army

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

6552C67500 / MLRS Mods

Modifications

Program Elements for Code B Items: N/A

Other Related Program Elements: 0603778A

Line Item MDAP/MAIS Code: N/A

LI 6552C67500 - MLRS Mods

Army

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

	Exhibits Schedule		,		Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title* Subexhibits ID CD			MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-3a	N/				- / 606.945	- / 478.998	- / 372.550	- /310.419	- /20.000	- /330.419
P-40	Total Gross/Weapon System Cost			- / 606.945	- / 478.998	- / 372.550	- / 310.419	- / 20.000	- / 330.419	
	Exhibits Schedule				FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-3a	-3a C67500 / MLRS Mods (.)				- / 277.623	- / 207.159	- / 165.712	- /165.062	Continuing	Continuing
P-40	Total Gross/Weapon System Cost		- / 277.623	- / 207.159	- / 165.712	- /165.062	Continuing	Continuing		

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

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

Justification:

FY 2021 procurement dollars in the amount of \$310.419 million supports MLRS Fleet Expansion (Mod 1) of 37 MLRS launchers from M270A0 configuration to M270A2 configuration; completes the nonrecurring engineering obsolescence effort of the launcher chassis design. Procures 26 Improved Armored Cabs (Mod 3).

FY 2021 OCO procurement dollars in the amount of \$20.000 million supports MLRS Fleet Expansion (Mod 1) of 3 MLRS launchers from M270A0 configuration to M270A2 configuration.

The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or foreign military sales to start the MLRS Fleet Upgrade (Mod 2) of MLRS launchers from M270A1 configuration to M270A2 configuration, and/or address obsolescence, modernization, cost reduction, and production initiatives. The Army will continue to incorporate modifications with the MLRS launcher to keep pace with the current and evolving threat.

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

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Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10	P-1 Line Item Number / Title: 6552C67500 / MLRS Mods	Modification Number / Title: C67500 / MLRS Mods
ID O a da	MD A D/M A IO O	4

					MDAP/MA	IS Code:					
Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
-	-	-	-	-	-	-	-	-	-	-	-
606.945	478.998	372.550	310.419	20.000	330.419	277.623	207.159	165.712	165.062	Continuing	Continuing
-	-	-	-	-	-	-	-	-	-	-	-
606.945	478.998	372.550	310.419	20.000	330.419	277.623	207.159	165.712	165.062	Continuing	Continuing
-	-	-	-	-	-	-	-	-	-	-	-
606.945	478.998	372.550	310.419	20.000	330.419	277.623	207.159	165.712	165.062	Continuing	Continuing
Resource Sumr	nary rows are fo	r informational p	urposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)				i
-	-	-	-	-	-	-	-	-	-	-	-
12,644.688	6,942.000	4,005.914	7,760.475	10,000.000	7,867.119	25,238.455	9,416.318	8,285.600	8,253.100	Continuing	Continuing
	Prior Years - 606.945 - 606.945 - 606.945 Resource Summ	Prior Years FY 2019	Prior Years FY 2019 FY 2020 - - - 606.945 478.998 372.550 - - - 606.945 478.998 372.550 - - - 606.945 478.998 372.550 Resource Summary rows are for informational properties. - -	Prior Years FY 2019 FY 2020 FY 2021 - - - - 606.945 478.998 372.550 310.419 - - - - 606.945 478.998 372.550 310.419 - - - - 606.945 478.998 372.550 310.419 Resource Summary rows are for informational purposes only. The contractional purposes only. The contractional purposes only. The contractional purposes only. The contraction of the contraction o	Prior Years FY 2019 FY 2020 FY 2021 Base FY 2021 OCO - - - - - - 606.945 478.998 372.550 310.419 20.000 - - - - - 606.945 478.998 372.550 310.419 20.000 - - - - - 606.945 478.998 372.550 310.419 20.000 Resource Summary rows are for informational purposes only. The corresponding - - - -	Prior Years FY 2019 FY 2020 FY 2021 Base FY 2021 OCO FY 2021 Total - - - - - - - 606.945 478.998 372.550 310.419 20.000 330.419 - - - - - - 606.945 478.998 372.550 310.419 20.000 330.419 - - - - - - 606.945 478.998 372.550 310.419 20.000 330.419 Resource Summary rows are for informational purposes only. The corresponding budget request - - - -	Prior Years FY 2019 FY 2020 FY 2021 Base FY 2021 OCO FY 2021 Total Total Total FY 2022 -	Prior Years FY 2019 FY 2020 FY 2021 Base FY 2021 OCO FY 2021 Total Total FY 2022 FY 2022 FY 2023 -<	Prior Years FY 2019 FY 2020 FY 2021 Base FY 2021 OCO FY 2021 Total Total Total FY 2022 FY 2023 FY 2024 -	Prior Years FY 2019 FY 2020 Base FY 2021 FY 2021 FY 2022 FY 2023 FY 2024 FY 2025 - <td>Prior Years FY 2019 FY 2020 Base OCO Total FY 2022 FY 2023 FY 2024 FY 2025 Complete -</td>	Prior Years FY 2019 FY 2020 Base OCO Total FY 2022 FY 2023 FY 2024 FY 2025 Complete -

Description:

The M270A1 Multiple Launch Rocket System (MLRS) launcher is a full-spectrum, combat-proven, all-weather, 24/7 lethal and responsive, precision strike weapon system. MLRS provides critical missile precision strike, operational shaping fires, counterfire, and close support destructive and suppressive fires. MLRS is a tracked, indirect fire, rocket/missile launcher capable of firing two pods of precision rockets/missiles from the current and emerging Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM), to include the Extended Range Guided Multiple Launch Rocket System (ER GMLRS), the Army Tactical Missile System (ATACMS), and the Precision Strike Missile (PrSM).

In FY2017, the Army directed the program office to modernize 160 obsolete, unserviceable MLRS M270A0s to M270A2s in an effort called MLRS Fleet Expansion. In addition to MLRS Fleet Expansion, the Army decided to extend the operational life of the existing M270A1 fleet to FY2050 or beyond, which drives the requirement to upgrade the current fleet of 225 M270A1 launchers to the M270A2 configuration. The end state is 385 MLRS launchers with Improved Armored Cabs (IAC), Bradley commonality improvements, and Common Fire Control System (CFCS). Upon integration of the IAC Modification Kit on a M270A1, the launcher permanently becomes an M270A2.

Mod 1 (MLRS Fleet Expansion). The Fleet Expansion effort will modernize 160 MLRS M270A0s to M270A2s through a Public Private Partnership. The prime contractor and Red River Army Depot (RRAD) will rebuild and provide selective upgrades to include, IAC, Bradley commonality improvements, and CFCS.

Mod 2 (MLRS Fleet Upgrade). The MLRS Fleet upgrade effort will follow the same rebuild process and selective upgrades as the Fleet Expansion effort, by upgrading the current fleet of M270A1 launchers to M270A2 with IAC, Bradley Commonality and CFCS. Upon integration of the IAC Modification Kit on a M270A1, the launcher permanently becomes a M270A2. This upgrade effort will extend the operational life of these launchers to FY2050 and beyond.

Mod 3 (Improved Armored Cab). The Improved Armored Cab (IAC) Modification Kit provides crew survivability against Improvised Explosive Devices (IEDs) and small arms fire greater than or equal to the High Mobility Artillery Rocket System (HIMARS) Increased Crew Protection Cab (ICP). Additionally, IAC standardizes crew drill requirements between HIMARS and MLRS operators. Upon integration of the IAC Modification Kit on a M270A1, the launcher permanently becomes a M270A2. Integration of the IAC is performed by RRAD under a Public Private Partnership as part of the MLRS Fleet Expansion effort.

The current Army Acquisition Objective is 225 MLRS launchers. The end state Army Acquisition Objective after Fleet Expansion will be 385 M270A2 MLRS launchers.

Secondary	<i>r</i> Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	478.998	372.550	301.055	20.000	321.055	266.537	207.159	165.712	165.062

LI 6552C67500 - MLRS Mods

Army

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P-1 Line #24

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10	P-1 Line Item Number / Title: 6552C67500 / MLRS Mods	Modification Number / Title: C67500 / MLRS Mods

ID Code (A=Service Read	dy, B=Not Service Ready):			MDAP/MA	AIS Code:				ļ	
Secon	Secondary Distribution		FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	9.364	-	9.364	11.086	-	-	-
Total:	Quantity	-	-	-	=	-	-	=	=	-
Secondary Distribution	Total Obligation Authority	478.998	372.550	310.419	20.000	330.419	277.623	207.159	165.712	165.062

Exhibit P-3a, Individual Modification: F	PB 2021 Arm	ıy							Date: Feb	ruary 2020		
Appropriation / Budget Activity / Budg 2032A / 03 / 10	et Sub Acti	vity:		tem Numb 500 / MLRS					Modificati C67500 / N			
ID Code (A=Service Ready, B=Not Service Ready):					MD	AP/MAIS Co	ode:					
Models of Systems Affected: M270A1		Modif	ication Typ	oe: .			Re	lated RDT	&E PEs:			
	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M	Qty (Each) I Total Cost (\$ M									
Procurement												
Modification Item 1 of 3: MLRS Fleet Expansion												
A Kits												
Recurring												_
Obsolescence Mitigation (inactive)	- /468.710	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / -	- 1 -	- /468.71
System Engineering Program Management	- / 14.418	- / 16.847	- / 16.244	- / 16.525	- 1 -	- / 16.525	- / 10.481	- 1 -	- 1 -	- 1 -	- 1 -	- /74.51
Transmissions and Engines	- / 17.125	- / 1.288	- /25.526	- / 16.383	- 1 -	- / 16.383	- / 10.653	- 1 -	- 1 -	- 1 -	- 1 -	- /70.97
M270A2 Launcher Fleet Expansion	- 1 -	55 / 368.802	39 / 271.493	37 / 229.978	3 / 20.000	40 / 249.978	26 / 167.200	- 1 -	- 1 -	- 1 -	- 1 -	160 / 1,057.47
Subtotal: Recurring	- /500.253	55 / 386.937	39 / 313.263	37 / 262.886	3 / 20.000	40 / 282.886	26 / 188.334	- / -	- / -	- / -	- / -	160 / 1,671.67
Non-Recurring												,
Obsolescence Mitigation Bradley Chassis	- / 18.494	- / 20.328	- 1 -	- /7.871	- 1 -	- 17.871	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 46.69
Obsolescence Mitigation Fire Control Sys	- / 14.195	- <i>I</i> 12.896	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / -	- 1 -	- 1 -	- / 27.09
Launcher Risk Reduction	- / 12.850	- 14.567	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 17.41
Government Testing	- 1 -	- / 0.923	- / 0.460	- 12.627	- 1 -	- 12.627	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /4.01
Initial Spares	- 1 -	- <i>I</i> 13.171	- / 14.470	- /8.172	- 1 -	- /8.172	- 12.778	- 1 -	- 1 -	- 1 -	- 1 -	- / 38.59
Training	- 1 -	- / 1.909	- 1 -	- / 6.693	- 1 -	- / 6.693	- /2.692	- 1 -	- 1 -	- 1 -	- 1 -	- / 11.29
Subtotal: Non-Recurring	- /45.539	- /53.794	- /14.930	- /25.363	- / -	- /25.363	- /5.470	- / -	- / -	- / -	- / -	- /145.09
Subtotal: MLRS Fleet Expansion	- /545.792	55 / 440.731	39 / 328.193	37 / 288.249	3 / 20.000	40 / 308.249	26 / 193.804	- / -	- / -	- / -	- / -	160 / 1,816.76
Modification Item 2 of 3: MLRS Fleet Upgrade												
A Kits												
Recurring												
System Engineering Program Management	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /5.448	- / 16.050	- /16.719	- / 17.389	Continuing	Continuing
Transmissions and Engines	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 15.979	- / 12.496	- / 11.267	- /7.119	Continuing	Continuing
M270A2 Launcher Upgrade	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	6 / 37.987	22 / 152.521	20 / 136.369	20 / 138.765	Continuing	Continuing
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	6 / 59.414	22 / 181.067	20 / 164.355	20 / 163.273	Continuing	Continuing
Non-Recurring												
Training	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /2.580	- /1.795	- /1.357	- <i>I</i> 1.789	Continuing	Continuing
Subtotal: Non-Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- /2.580	- /1.795	- /1.357	- /1.789	Continuing	Continuing
Subtotal: MLRS Fleet Upgrade	- / -	- / -	- / -	- / -	- / -	- / -	6 / 61.994	22 / 182.862	20 / 165.712	20 / 165.062	Continuing	Continuing
Modification Item 3 of 3: Improved Armored Cab (IAC)			'								
A Kits												
Recurring												

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Exhibit P-3a, Individual Modification: PB 2021 ArmyDate: February 2020Appropriation / Budget Activity / Budget Sub Activity:P-1 Line Item Number / Title:
6552C67500 / MLRS ModsModification Number / Title:
C67500 / MLRS Mods

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

ID Codo (A-cervice ready, b-Not cervice ready) .			\\ /\\\/\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Juo.								
Models of Systems Affected: M270A1		Modifi	cation Typ	oe: .			Re	lated RDT	&E PEs:			
	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)
Production	51 / 61.153	51 / 38.267	51 / 44.357	26 / 22.170	- 1 -	26 / 22.170	25 / 21.825	26 / 24.297	- 1 -	- 1 -	Continuing	Continuing
Subtotal: Recurring	51 / 61.153	51 / 38.267	51 / 44.357	26 / 22.170	- / -	26 / 22.170	25 / 21.825	26 / 24.297	- / -	- / -	Continuing	Continuing
Subtotal: Improved Armored Cab (IAC)	51 / 61.153	51 / 38.267	51 / 44.357	26 / 22.170	- / -	26 / 22.170	25 / 21.825	26 / 24.297	- / -	- / -	Continuing	Continuing
Subtotal: Procurement, All Modification Items	51 / 606.945	106 / 478.998	90 / 372.550	63 / 310.419	3 / 20.000	66 / 330.419	57 / 277.623	48 / 207.159	20 / 165.712	20 / 165.062	Continuing	Continuing
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	-											
Total Cost (Procurement + Support + Installation)	606.945	478.998	372.550	310.419	20.000	330.419	277.623	207.159	165.712	165.062	Continuing	Continuing

			UNCL	.ASSIFIED			
xhibit P-3a, Indivi	dual Modification: Pl	B 2021 Army				Date: February 2020	
appropriation / Bu 032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 6552C67500 / ML			Modification Number C67500 / MLRS Mod	
Code (A=Service Ready,	B=Not Service Ready):			MDAP/MAIS Co	ode:	l	
	: MLRS Fleet Expansion						
lanufacturer Informati	on						
lanufacturer Name: Loc	kheed Martin Missiles & Fire	e Control		Manufacturer Location: Ca	amden, AR		
dministrative Leadtime	(in Months): 3			Production Leadtime (in M	fonths): 28		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
ontract Dates	Apr 2019	Apr 2020	Apr 2021	Apr 2022			
elivery Dates	Dec 2021	Oct 2022	Sep 2023	Aug 2024			

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			UNCL	_ASSIFIED			
Exhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020)
Appropriation / Bud 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 6552C67500 / ML			Modification Number C67500 / MLRS Mod	
D Code (A=Service Ready, I	B=Not Service Ready):			MDAP/MAIS Co	ode:		
Modification Item 2 of 3	: MLRS Fleet Upgrade						
Manufacturer Information	on						
Manufacturer Name: Locl	kheed Martin Missiles & Fir	re Control		Manufacturer Location: Ca	amden, AR		
Administrative Leadtime ((in Months): 3			Production Leadtime (in M	lonths): 28		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates				Apr 2022	Apr 2023	Apr 2024	Apr 2025
Delivery Dates				Dec 2024	Dec 2025	Dec 2026	Dec 2027

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			UNCL	ASSIFIED			
Exhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020)
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 6552C67500 / ML		_	Modification Number C67500 / MLRS Mod	
D Code (A=Service Ready,	B=Not Service Ready):			MDAP/MAIS C	ode:		
Modification Item 3 of 3	: Improved Armored Cab (I	AC)					
Manufacturer Informati	on						
lanufacturer Name: Loc	Performance Products, LL	С		Manufacturer Location: Pl	lymouth, MI		
Administrative Leadtime	(in Months): 3			Production Leadtime (in N	Months): 21		
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Aug 2019	May 2020	May 2021	May 2022	May 2023		
Delivery Dates	May 2021	May 2022	May 2023	May 2024	May 2025		
nstallation Information							
lethod of Implementat	ion (Organic): Depot				Installation (Quantity: 0	

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

6580C67501 / HIMARS Modifications

Modifications

Program Elements for Code B Items: N/A

Other Related Program Elements: 0210600A, 0603778A,

0210608A

Line Item MDAP/MAIS Code: N/A

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

the item wida-riwals code. N/A													
	Prior			FY 2021	FY 2021	FY 2021					То		
Resource Summary	Years	FY 2019	FY 2020	Base	OCO	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total	
Procurement Quantity (Units in Each)	59	35	40	22	-	22	22	30	60	100	Continuing	Continuing	
Gross/Weapon System Cost (\$ in Millions)	235.062	10.196	12.483	6.081	-	6.081	7.292	9.700	17.402	29.968	Continuing	Continuing	
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-	
Net Procurement (P-1) (\$ in Millions)	235.062	10.196	12.483	6.081	-	6.081	7.292	9.700	17.402	29.968	Continuing	Continuing	
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-	
Total Obligation Authority (\$ in Millions)	235.062	10.196	12.483	6.081	-	6.081	7.292	9.700	17.402	29.968	Continuing	Continuing	
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	e corresponding	budget request	s are documente	d elsewhere.)					
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-	
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-	
Gross/Weapon System Unit Cost (\$ in Thousands)	3,984.102	291.314	312.075	276.409	-	276.409	331.455	323.333	290.033	299.680	Continuing	Continuing	

Description:

The M142 High Mobility Artillery Rocket System (HIMARS) launcher is a full spectrum, combat proven, all weather, 24/7 lethal and responsive, precision strike weapon system. HIMARS provides critical missile precision strike, operational shaping fires, counter-fire, and close support destructive and suppressive fires. HIMARS is a C-130 or C-17 transportable, wheeled, indirect fire, rocket/missile launcher capable of firing one pod of precision rockets/missiles from the current and future Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM), to include the Guided Multiple Launch Rocket System-Unitary (GMLRS-U), GMLRS Alternative Warhead, the Army Tactical Missile System (ATACMS) and future MFOM to include the Extended Range (ER) GMLRS, and the Precision Strike Missile (PrSM).

Mod 1 (M142 Mods). Modifications are needed to address safety, operational-related, chassis, and Command, Control, Communications, Computer, and Intelligence (C4I) obsolescence issues within the HIMARS fleet. Additionally, procures system-specific training devices required to support the HIMARS Vehicle and Maintainer training courses.

Army Acquisition Objective (AAO) is 363 HIMARS launchers. The end state Army Acquisition Objective after HIMARS Fleet Expansion will be 425 HIMARS launchers, but may be increased contingent on Army requirements.

Seconda	ry Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	16	40	14	-	14	14	17	34	52
	Total Obligation Authority	4.444	12.483	3.867	-	3.867	4.545	5.525	9.911	15.338
ANG	Quantity	19	-	8	-	8	8	13	26	48
	Total Obligation Authority	5.752	-	2.214	-	2.214	2.747	4.175	7.491	14.630
Total:	Quantity	35	40	22	-	22	22	30	60	100
Secondary Distribution	Total Obligation Authority	10.196	12.483	6.081	-	6.081	7.292	9.700	17.402	29.968

UNCLASSIFIED Page 1 of 5

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:

6580C67501 / HIMARS Modifications

Modifications

Program Elements for Code B Items: N/A

Other Related Program Elements: 0210600A, 0603778A,

0210608A

Line Item MDAP/MAIS Code: N/A

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

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)				
P-3a	C67501 / HIMARS Modifications (Operational, Reliability, Safety, Crew Survivability)				59 / 235.062	35 / 10.196	40 / 12.483	22 / 6.081	- / -	22 / 6.081
P-40	Total Gross/Weapon System Cost				59 / 235.062	35 / 10.196	40 / 12.483	22 / 6.081	- 1 -	22 / 6.081
	Exhibits Schedule				FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)				
P-3a	C67501 / HIMARS Modifications (Operational, Reliability, Safety, Crew Survivability)				22 / 7.292	30 / 9.700	60 / 17.402	100 / 29.968	Continuing	Continuing
P-40	Total Gross/Weapon System Cost				22 / 7.292	30 / 9.700	60 / 17.402	100 / 29.968	Continuing	Continuing

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

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

Justification:

FY2021 Base procurement dollars in the amount of \$6.081 million support obsolescence mitigation and other design modifications of the M142 High Mobility Artillery Rocket System (HIMARS) fleet. HIMARS Modifications funding will include, but are not limited to, the following: updating the FMTV carrier and the Launcher-Loader Module drawing packages and Technical Data Packages through the prime contractor and the government product office; updating the Interactive Electronic Technical Manuals for Soldiers to perform operator maintenance; upgrading the Diagnostic Trainers and HIMARS Mock-up Trainer due to obsolescence. Software updates and Information Assurance requirements will be conducted to support fielding of Software Version 8.x. System engineering efforts will be conducted to sustain the system and to assess and conduct modifications such as long range communications, wireless vehicular intercom system, carrier, Launcher-Loader Module, and Fire Control System obsolescence. Base procurement dollars will also incorporate modifications with the HIMARS launcher to keep pace with the current and evolving threat.

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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LI 6580C67501 - HIMARS Modifications Army

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10	P-1 Line Item Number / Title: 6580C67501 / HIMARS Modifications	Modification Number / Title: C67501 / HIMARS Modifications
ID Octo	NAD A DIMANO. O a des	'

ID Code (A=Service Ready, B=Not Service Ready)	:					MDAP/MA	IS Code:					
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (Units in Each)	59	35	40	22	-	22	22	30	60	100	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	235.062	10.196	12.483	6.081	-	6.081	7.292	9.700	17.402	29.968	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	235.062	10.196	12.483	6.081	-	6.081	7.292	9.700	17.402	29.968	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	235.062	10.196	12.483	6.081	-	6.081	7.292	9.700	17.402	29.968	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	g budget request	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	3,984.102	291.314	312.075	276.409	-	276.409	331.455	323.333	290.033	299.680	Continuing	Continuing

Description:

The M142 High Mobility Artillery Rocket System (HIMARS) launcher is a full-spectrum, combat-proven, all-weather, 24/7 lethal and responsive, precision strike weapon system. HIMARS provides critical missile precision strike, operational shaping fires, counter-fire, and close support destructive and suppressive fires. HIMARS is a C-130 or C-17 transportable, wheeled, indirect fire, rocket/missile launcher capable of firing one pod of precision rockets/missiles from the current and emerging Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM), to include the Guided Multiple Launch Rocket System-Unitary (GMLRS-U), GMLRS Alternative Warhead, the Army Tactical Missile System (ATACMS) and future MFOM to include the Extended Range (ER) GMLRS, and the Precision Strike Missile (PrSM).

Mod 1 (M142 Mods). Modifications are needed to address safety, operational-related, chassis, and Command, Control, Communications, Computer, and Intelligence (C4I) obsolescence issues within the HIMARS fleet. Additionally, procures system-specific training devices required to support the HIMARS Vehicle and Maintainer training courses.

Army Acquisition Objective (AAO) is 363 HIMARS launchers. The end state Army Acquisition Objective after HIMARS Fleet Expansion will be 425 HIMARS launchers, but may be increased contingent on Army requirements.

Second	dary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	16	40	14	-	14	14	17	34	52
	Total Obligation Authority	4.444	12.483	3.867	-	3.867	4.545	5.525	9.911	15.338
ANG	Quantity	19	-	8	-	8	8	13	26	48
	Total Obligation Authority	5.752	-	2.214	-	2.214	2.747	4.175	7.491	14.630
Total:	Quantity	35	40	22	-	22	22	30	60	100
Secondary Distribution	Total Obligation Authority	10.196	12.483	6.081	-	6.081	7.292	9.700	17.402	29.968

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P-1 Line #25

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Exhibit P-3a, Individual Modification:	PB 2021 Arm	ıy							Date: Feb	ruary 2020			
Appropriation / Budget Activity / Budg 2032A / 03 / 10	get Sub Acti	•	P-1 Line Item Number / Title: 6580C67501 / HIMARS Modifications							Modification Number / Title: C67501 / HIMARS Modifications			
ID Code (A=Service Ready, B=Not Service Ready):			MDAP/MAIS Code:										
Models of Systems Affected: M142 High	gh Mobility		cation Typ Survivability	•	onal, Relia	bility, Safet	ry, Re	lated RDT	&E PEs:				
	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ I	
Procurement													
Modification Item 1 of 1: M142 Mods													
A Kits													
Recurring													
Program Management	- /1.300	- /1.326	- /1.353	- /1.262	- 1 -	- /1.262	- /1.401	- /1.426	- /1.446	- /2.461	Continuing	Continuing	
Obsolescence Mitigation	- / 228.601	- /3.604	- /5.930	- /2.552	- 1 -	- /2.552	- / 0.477	- /2.752	- / 10.326	- / 17.769	Continuing	Continuing	
Industrial Facilities	- /0.700	- /0.714	- / 0.729	- / 0.356	- 1 -	- / 0.356	- / 0.759	- /0.774	- /0.789	- /1.804	Continuing	Continuing	
Peculiar Support Equipment	- / 0.175	- / 0.179	- / 0.183	- / 0.089	- 1 -	- / 0.089	- / 0.191	- / 0.195	- / 0.199	- /1.203	Continuing	Continuing	
Training	- / 0.661	- / 0.675	- / 0.689	- / 0.336	- 1 -	- / 0.336	- /0.718	- /0.732	- /0.746	- /1.760	Continuing	Continuing	
Test & Evaluation (Acceptance Testing)	- /1.200	- /1.224	- /1.249	- / 0.609	- 1 -	- / 0.609	- /1.300	- /1.326	- /1.352	- /1.378	Continuing	Continuing	
Systems Engineering	- /2.425	- 12.474	- /2.350	- / 0.877	- 1 -	- / 0.877	- /2.446	- /2.495	- /2.544	- /3.593	Continuing	Continuing	
Subtotal: Recurring	- /235.062	- /10.196	- /12.483	- /6.081	- / -	- /6.081	- /7.292	- /9.700	- /17.402	- /29.968	Continuing	Continuing	
Subtotal: M142 Mods	- /235.062	- /10.196	- /12.483	- /6.081	- / -	- /6.081	- /7.292	- /9.700	- /17.402	- /29.968	Continuing	Continuing	
Subtotal: Procurement, All Modification Items	- /235.062	- /10.196	- /12.483	- /6.081	- / -	- /6.081	- /7.292	- /9.700	- /17.402	- /29.968	Continuing	Continuing	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	235.062	10.196	12.483	6.081	_	6.081	7.292	9.700	17.402	29.968	Continuing	Continuing	

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Exhibit P-3a, Indivi	dual Modification: P	B 2021 Army				Date: February 2020)			
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 6580C67501 / HII	mber / Title: MARS Modifications		Modification Number C67501 / HIMARS M				
ID Code (A=Service Ready,	B=Not Service Ready):		-	MDAP/MAIS Co	ode:	1				
Modification Item 1 of 1	: M142 Mods									
Manufacturer Informati	on									
Manufacturer Name: Stra	ategic and Operational Rocl	ket & Missiles Project O	ffice	Manufacturer Location: Re	edstone Arsenal, AL					
Administrative Leadtime	(in Months):			Production Leadtime (in Months):						
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025			
Contract Dates										
Delivery Dates										
Installation Information										
Method of Implementat	ion (Organic): Field Artiller	v Launchers Product O	ffice		Installation Q	uantity: 0				

LI 6580C67501 - HIMARS Modifications Army

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 04: Spares and Repair Parts / BSA 10:

1242CA0250 / Spares And Repair Parts

Spares And Repair Parts

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

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

	Prior			FY 2021	FY 2021	FY 2021					То	
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	329.783	27.737	26.444	5.090	-	5.090	16.167	6.380	6.553	6.671	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	329.783	27.737	26.444	5.090	-	5.090	16.167	6.380	6.553	6.671	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	329.783	27.737	26.444	5.090	-	5.090	16.167	6.380	6.553	6.671	Continuing	Continuing
(The following	Resource Sumr	mary rows are fo	r informational p	urposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)	•			
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY 2021 funds provide for the procurement of spares to support initial fielding of new or modified end items.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	27.737	26.444	5.090	-	5.090	16.167	6.380	6.553	6.671
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	27.737	26.444	5.090	-	5.090	16.167	6.380	6.553	6.671

LI 1242CA0250 - Spares And Repair Parts Army

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 04: Spares and Repair Parts / BSA 10:

1242CA0250 / Spares And Repair Parts

Spares And Repair Parts

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

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

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-40a	CA0267 / PATRIOT MODIFICATION INITIAL SPARES				- / 329.783	- / 27.737	- / 26.444	- /5.090	- / -	- /5.090
P-40	Total Gross/Weapon System Cost				- / 329.783	- / 27.737	- / 26.444	- / 5.090	- 1 -	- / 5.090

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

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

Justification:

FY2021 procurement dollars in the amount of \$5.090 million support continuing acquisition of Patriot Modification Initial Spares. The funds in this account procure depot level repairable (DLR) secondary items from Supply Management, Army activities of the Army Working Capital Fund and commercial life cycle support vendors. To provide initial issue spares support, funds are required in the same year that end items are fielded.

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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LI 1242CA0250 - Spares And Repair Parts Army

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Army

329.783

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

27.737

Aggregated Items Title:

2032A / 04 / 10

Total

1242CA0250 / Spares And Repair Parts

CA0267 / PATRIOT MODIFICATION

															'''		1 / 11 (LO			
			F	Prior Year	s		FY 2019			FY 2020		FY	2021 Ba	se	FY	/ 2021 OC	ю	F	Y 2021 Tot	tal
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	Qty (Each)	Total Cost (\$ M)															
PATRIOT MODIFICATION	INITI	AL SPA	RES	,	,		,		,		,									
CA0267 / PATRIOT MODIFICATION INITIAL SPARES			-	-	329.783	-	-	27.737	-	-	26.444	-	-	5.090	-	-	-	-	-	5.090
Secondary Distribution	1				•															•
Army				-	-		-	27.737		-	26.444		-	5.090		-	-		-	5.090
Subtotal: PATRIOT MOD INITIAL SPARES	IFICAT	TION	-	-	329.783	-	-	27.737	-	-	26.444	-	-	5.090	-	-	_	-	-	5.090

26.444

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

LI 1242CA0250 - Spares And Repair Parts Army

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P-1 Line #26

5.090

5.090

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA | 1242C93000 / Air Defense Targets

10: Support Equipment & Facilities ID Code (A=Service Ready, B=Not Service Ready):

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

	Prior			FY 2021	FY 2021	FY 2021					То	·
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	394	538	-	538	539	527	530	524	-	3,052
Gross/Weapon System Cost (\$ in Millions)	441.086	6.417	10.593	8.978	-	8.978	8.987	9.190	9.377	9.593	-	504.221
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	441.086	6.417	10.593	8.978	-	8.978	8.987	9.190	9.377	9.593	-	504.221
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	441.086	6.417	10.593	8.978	-	8.978	8.987	9.190	9.377	9.593	-	504.221
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	26.886	16.688	-	16.688	16.673	17.438	17.692	18.307	-	165.210

Description:

Air Defense Artillery (ADA) Targets program procures target hardware and associated training services to include scoring, payload, and ground support equipment to enable Air Defense Artillery Soldiers and units to conduct required training. This training consists of Department of the Army Pamphlet (DA PAM) 350-38 (Standards in Training Commission) required gunnery tables and aerial target tracking, training, and scoring. Target systems are also available to support collective training exercises and Force Development Testing and Experimentation (FDT&E) investigations of engagement techniques for small unmanned aircraft systems.

Secondar	y Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	394	538	-	538	539	527	530	524
	Total Obligation Authority	6.417	10.593	8.978	-	8.978	8.987	9.190	9.377	9.593
Total:	Quantity	-	394	538	-	538	539	527	530	524
Secondary Distribution	Total Obligation Authority	6.417	10.593	8.978	-	8.978	8.987	9.190	9.377	9.593

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA | 1242C93000 / Air Defense Targets

10: Support Equipment & Facilities ID Code (A=Service Ready, B=Not Service Ready):

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

	Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-5	C93000 / Air Defense Targets	P-5a			- / 441.086	- / 6.417	394 / 10.593	538 / 8.978	- / -	538 / 8.978
P-40	Total Gross/Weapon System Cost				- / 441.086	- / 6.417	394 / 10.593	538 / 8.978	- 1 -	538 / 8.978

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

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

Justification:

FY 2021 Base procurement dollars in the amount of \$8.978 million supports Air Defense Artillery Targets and scoring, payload, and ground support equipment for training required in DA PAM 350-38, Standards in Training Commission (STRAC). These items support gunnery tables, aerial target tracking (Captive Flight Trainer (CFT) and Tracking Head Trainer (THT) 5.56) training, Missile Live Fire training when missiles are allocated in accordance with (IAW) the Missile Distribution Plan, and U.S. Army Avenger systems worldwide. Training requirements are generated by Department of the Army Major Field Commands, Training Centers, Division Level Commands, and real world mission rehearsals. These field requirements have been reviewed and validated against ongoing force restructuring and are consistent with the approved training doctrine. These targets are necessary to meet Army Regulation 220-1 (Unit Status Reporting) training requirements, training strategies and gunnery standards, and soldier qualification in support of unit readiness.

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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LI 1242C93000 - Air Defense Targets Army

Exhibit P-5, Cost Analysis: PB 2021 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 05 / 10

Date: February 2020

Item Number / Title [DODIC]:
1242C93000 / Air Defense Targets

C93000 / Air Defense Targets

ID Code (A=Service Ready, B=Not Service Ready):	·	N	DAP/MAIS Code:			
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	394	538	-	538
Gross/Weapon System Cost (\$ in Millions)	441.086	6.41	7 10.593	8.978	-	8.978
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	441.086	6.41	7 10.593	8.978	-	8.978
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	441.086	6.41	10.593	8.978	-	8.978
(The following Resource Summary rows are for information	onal purposes only. The cor	responding budget reque	sts are documented elsewhe	re.)		3
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	26.886	16.688	-	16.688

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

	P	rior Years	;		FY 2019		_	FY 2020		FY	′ 2021 Bas	e	FY	/ 2021 OC	0	F	/ 2021 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost							·											
Recurring Cost																		
Remotely Piloted Vehicle Target (RPVT) ^(†)	551.380	789	435.039	6.756	394	2.662	6.962	394	2.743	7.171	539	3.865	-	-	-	7.171	539	3.86
Infrared Kit Payload ^(†)	0.277	788	0.218	0.322	394	0.127	0.332	394	0.131	0.341	539	0.184	-	-	-	0.341	539	0.18
Launcher ^(†)	27.286	7	0.191	30.000	4	0.120	31.000	5	0.155	32.000	1	0.032	-	-	-	32.000	1	0.03
Manual Navigation GCS ^(†)	10.429	14	0.146	11.857	14	0.166	12.214	14	0.171	12.600	5	0.063	-	-	-	12.600	5	0.06
BVR Navigation GCS ^(†)	27.000	4	0.108	30.750	4	0.123	31.750	4	0.127	32.700	10	0.327	-	-	-	32.700	10	0.32
BVR Payload ^(†)	12.063	48	0.579	13.700	20	0.274	14.100	20	0.282	14.519	27	0.392	-	-	-	14.519	27	0.39
Acoustic Scoring Payload ^(†)	13.580	50	0.679	13.393	28	0.375	13.786	28	0.386	14.200	50	0.710	-	-	-	14.200	50	0.7
Acoustic Scoring GCS ^(†)	43.000	8	0.344	47.778	9	0.430	49.222	9	0.443	51.000	2	0.102	-	-	-	51.000	2	0.10
Radar Scoring Payload ^(†)	16.900	20	0.338	18.750	20	0.375	19.300	20	0.386	20.000	40	0.800	-	-	-	20.000	40	0.80
Radar Scoring GCS ^(†)	-	-	-	17.000	1	0.017	18.000	1	0.018	18.500	2	0.037	-	-	-	18.500	2	0.03
RPVT Lighting Kit Payload ^(†)	0.286	56	0.016	0.323	31	0.010	0.323	31	0.010	0.333	45	0.015	-	-	-	0.333	45	0.0
Program Management Support	1,588.000	2	3.176	1,646.000	1	1.646	1,815.000	1	1.815	2,132.000	1	2.132	-	-	-	2,132.000	1	2.13

LI 1242C93000 - Air Defense Targets Army

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P-1 Line #27

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Exhibit P-5, Cost Analysis: PB 2021 Army

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]: C93000 / Air Defense Targets

2032A / 05 / 10

1242C93000 / Air Defense Targets

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

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

MDAP/MAIS Code:

	P	rior Years	;		FY 2019			FY 2020		F	1 2021 Ba	se	F`	Y 2021 OC	0	F`	Y 2021 Tota	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Smoke Generator Payload ^(†)	0.412	34	0.014	0.474	19	0.009	-	-	-	0.500	30	0.015	-	-	-	0.500	30	0.015
Over the Horizon BVR Payload ^(†)	23.900	10	0.239	20.750	4	0.083	-	-	-	20.000	15	0.300	-	-	-	20.000	15	0.300
Subtotal: Recurring Cost	-	-	441.087	-	-	6.417	-	-	6.667	-	-	8.974	-	-	-	-	-	8.974
Subtotal: Flyaway Cost	-	-	441.087	-	-	6.417	-	-	6.667	-	-	8.974	-	-	-	-	-	8.974
Software Cost																		
Recurring Cost																		
Technical Refresh - Windows OS Update	-	-	-	-	-	-	3,926.000	1	3.926	4.000	1	0.004	-	-	-	4.000	1	0.004
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	3.926	-	-	0.004	-	-	-	-	-	0.004
Subtotal: Software Cost	-	-	-	-	-	-	-	-	3.926	-	-	0.004	-	-	-	-	-	0.004
Gross/Weapon System Cost	-	-	441.086	-	-	6.417	26.886	394	10.593	16.688	538	8.978	-	-	-	16.688	538	8.978

Remarks:

FY 2020 increase in unit cost for Windows Operating System upgrade, which is necessary to maintain the system's authority to operate.

Seconda	ry Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	394	538	-	538
	Total Obligation Authority	6.417	10.593	8.978	-	8.978
Total:	Quantity	-	394	538	-	538
Secondary Distribution	Total Obligation Authority	6.417	10.593	8.978	-	8.978

(†) indicates the presence of a P-5a

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

Date: February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 05 / 10

P-1 Line Item Number / Title:
1242C93000 / Air Defense Targets

Item Number / Title [DODIC]:
C93000 / Air Defense Targets

	0			Method/Type or		Award	Date of First	Qty	Unit Cost	Specs Avail	Date Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$ K)	Now?	Available	Date
Remotely Piloted Vehicle Target (RPVT)		2018	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2018	Jun 2018	394	5.992	Y		
Remotely Piloted Vehicle Target (RPVT)		2019	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2019	Jun 2019	394	6.756	Υ		
Remotely Piloted Vehicle Target (RPVT)		2020	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2020	Jun 2020	394	6.962	Υ		
Remotely Piloted Vehicle Target (RPVT)		2021	Griffon Aerospace Inc. / Madison, AL	C / FFP	PEO-STRI	Dec 2020	Apr 2021	539	7.171	Υ		
Infrared Kit Payload		2018	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2018	Jun 2018	394	0.284	Υ		
Infrared Kit Payload		2019	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2019	Jun 2019	394	0.322	Υ		
Infrared Kit Payload		2020	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2020	Jun 2020	394	0.332	Υ		
Infrared Kit Payload		2021	Griffon Aerospace Inc. / Madison, AL	C / FFP	PEO-STRI	Dec 2020	Apr 2021	539	0.341	Υ		
Launcher		2018	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2018	Jun 2018	4	27.250	Υ		
Launcher		2019	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2019	Jun 2019	4	30.000	Υ		
Launcher		2020	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2020	Jun 2020	5	31.000	Υ		
Launcher		2021	Griffon Aerospace Inc. / Madison, AL	C / FFP	PEO-STRI	Dec 2020	Jun 2021	1	32.000	Υ		
Manual Navigation GCS		2018	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2018	Jun 2018	14	10.429	Υ		
Manual Navigation GCS		2019	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2019	Jun 2019	14	11.857	Υ		
Manual Navigation GCS		2020	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2020	Jun 2020	14	12.214	Υ		
Manual Navigation GCS		2021	Griffon Aerospace Inc. / Madison, AL	C / FFP	PEO STRI	Dec 2020	Jun 2021	5	12.600	Υ		
BVR Navigation GCS		2018	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2018	Jun 2018	4	27.000	Υ		
BVR Navigation GCS		2019	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2019	Jun 2019	4	30.750	Υ		
BVR Navigation GCS		2020	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2020	Jun 2020	4	31.750	Y		
BVR Navigation GCS		2021	Griffon Aerospace Inc. / Madison, AL	C / FFP	PEO STRI	Dec 2020	Jul 2021	10	32.700	Υ		
BVR Payload		2018	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2018	Jun 2018	16	12.063	Υ		
BVR Payload		2019	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2019	Jun 2019	20	13.700	Υ		
BVR Payload		2020	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2020	Jun 2020	20	14.100	Υ		
BVR Payload		2021	Griffon Aerospace Inc. / Madison, AL	C / FFP	PEO STRI	Dec 2020	Jul 2021	27	14.519	Υ		
Acoustic Scoring Payload		2018	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2018	Jun 2018	24	13.792	Υ		
Acoustic Scoring Payload		2019	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2019	Jun 2019	28	13.393	Υ		
Acoustic Scoring Payload		2020	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2020	Jun 2020	28	13.786	Υ		
Acoustic Scoring Payload		2021	Griffon Aerospace Inc. / Madison, AL	C / FFP	PE STRI	Dec 2020	Jul 2021	50	14.200	Υ		
Acoustic Scoring GCS		2018	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2018	Jun 2018	8	43.000	Υ		
Acoustic Scoring GCS		2019	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2019	Jun 2019	9	47.778	Υ		
Acoustic Scoring GCS	1	2020	Griffon Aerospace Inc. / Madison, AL	C / FFP	AMCOM	Mar 2020	Jun 2020	9	49.222	Υ		

LI 1242C93000 - Air Defense Targets Army

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

Appropriation / Budget Activity / Budget Sub Activity:

2032A / 05 / 10

Date: February 2020

Item Number / Title [DODIC]:

1242C93000 / Air Defense Targets

C93000 / Air Defense Targets

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Cost Elements	0 C 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issu Date
Acoustic Scoring GCS		2021	Griffon Aerospace Inc. / Madison, AL	. C/FFP	PEO STRI	Dec 2020	Jul 2021	2	51.000	Y		
Radar Scoring Payload		2018	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2018	Jun 2018	20	16.900	Υ		
Radar Scoring Payload		2019	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2019	Jun 2019	20	18.750	Υ		
Radar Scoring Payload		2020	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2020	Dec 2021	20	19.300	Υ		
Radar Scoring Payload		2021	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2021	Dec 2021	40	20.000	Υ		
Radar Scoring GCS		2018	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2018	Jun 2018	0	0.000	Υ		
Radar Scoring GCS		2019	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2019	Jun 2019	1	17.000	Υ		
Radar Scoring GCS		2020	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2020	Jun 2020	1	18.000	Υ		
Radar Scoring GCS		2021	Griffon Aerospace Inc. / Madison, AL	. C/FFP	PEO STRI	Dec 2020	Dec 2021	2	18.500	Υ		
RPVT Lighting Kit Payload		2018	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2018	Jun 2018	22	0.273	Υ		
RPVT Lighting Kit Payload		2019	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2019	Jun 2019	31	0.323	Υ		
RPVT Lighting Kit Payload		2020	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2020	Jun 2020	31	0.323	Υ		
RPVT Lighting Kit Payload		2021	Griffon Aerospace Inc. / Madison, AL	. C/FFP	PEO STRI	Dec 2020	May 2021	45	0.333	Υ		
Smoke Generator Payload		2018	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2018	Jun 2018	19	0.421	Υ		
Smoke Generator Payload		2019	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2019	Jun 2019	19	0.474	Υ		
Smoke Generator Payload		2020	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2020	Jun 2020	0	0.000	Υ		
Smoke Generator Payload		2021	Griffon Aerospace Inc. / Madison, AL	. C/FFP	PEO STRI	Dec 2020	May 2021	30	0.500	Υ		
Over the Horizon BVR Payload		2018	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2018	Jun 2018	4	19.000	Υ		
Over the Horizon BVR Payload		2019	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2019	Jun 2019	4	20.750	Υ		
Over the Horizon BVR Payload		2020	Griffon Aerospace Inc. / Madison, AL	. C/FFP	AMCOM	Mar 2020	Jun 2020	0	0.000	Υ		
Over the Horizon BVR Payload		2021	Griffon Aerospace Inc. / Madison, AL	. C/FFP	PEO STRI	Dec 2020	Jul 2021	15	20.000	Y		

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

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA 4662CA0100 / Production Base Support

10: Support Equipment & Facilities ID Code (A=Service Ready, B=Not Service Ready):

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

P-1 Line #28

Line Item MDAP/MAIS Code: N/A

December Comment	Prior	EV 2040	EV 2020	FY 2021	FY 2021	FY 2021	EV 2022	EV 2022	EV 2024	EV 2025	To	Tatal
Resource Summary	Years	FY 2019	FY 2020	Base	oco	Total	FY 2022	FY 2023	FY 2024	FY 2025	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	371.216	1.202	-	-	-	-	-	-	-	-	-	372.418
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	371.216	1.202	-	-	-	-	-	-	-	-	-	372.418
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	371.216	1.202	-	-	-	-	-	-	-	-	-	372.418
(The following	Resource Sumi	mary rows are fo	r informational p	ourposes only. Ti	he corresponding	g budget request	s are documente	ed elsewhere.)	1			
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	_	-	_	_	_	_	_	_	_	_	_	_

Description:

This program provided funding to the Army Test and Evaluation Command (ATEC), which modernized test facilities used in production testing of missiles and missile components. It sustained Army production test capabilities through upgrade and replacement of instrumentation and equipment that were technologically and/or economically obsolete. Modernization of test instrumentation and equipment provided increased automation and efficiencies, improved data quality and quantity, and cost avoidance to Army Program Managers. Programmed funding was used to upgrade or replace production test instrumentation and equipment at the White Sands Test Center (WSTC), White Sands Missile Range, New Mexico and Redstone Test Center (RTC), Huntsville, Alabama,

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.202	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.202	-	-	-	-	-	-	-	-

Justification:

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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