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**Department of Defense  
Fiscal Year (FY) 2018 Budget Estimates**

May 2017



**Army**

*Justification Book of  
**Missile Procurement, Army***

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# MISSILE PROCUREMENT, ARMY

## Appropriation Language

For construction, procurement, production, modification, and modernization of missile equipment, including ordnance, ground handling equipment, spare parts, and accessories therefore; specialized equipment and training devices; expansion of public and private plants, including the land necessary therefore, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes, \$3,078,337 to remain available for obligation until September 30, 2020.



## **COST STATEMENT**

The following Justification Books were prepared at a cost of \$250,916: Aircraft (ACFT), Missile (MSLS), Weapons & Tracked Combat Vehicles (WTCV), Ammunition (AMMO), Other Procurement Army (OPA) 1 - Tactical & Support Vehicles, Other Procurement Army (OPA) 2 - Communications & Electronics, Other Procurement Army (OPA) 3 & 4 - Other Support Equipment & Spares, Research, Development, Test and Evaluation (RDTE) for: Budget Activity 1, Budget Activity 2, Budget Activity 3, Budget Activity 4, Budget Activity 5A, Budget Activity 5B, Budget Activity 6, and Budget Activity 7.



UNCLASSIFIED

Department of the Army  
 FY 2018 President's Budget  
 Exhibit P-1 FY 2018 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

03 May 2017

Appropriation	FY 2016 (Base & OCO)	FY 2017 with CR Adj Base	FY 2017 with CR Adj OCO	FY 2017 with CR Adj Total
Missile Procurement, Army	1,684,154	2,450,568	-133,040	2,317,528
Total Department of the Army	1,684,154	2,450,568	-133,040	2,317,528

UNCLASSIFIED

Department of the Army  
FY 2018 President's Budget  
Exhibit P-1 FY 2018 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

03 May 2017

<u>Appropriation</u>	<u>FY 2018 Base</u>	<u>FY 2018 OCO</u>	<u>FY 2018 Total</u>
Missile Procurement, Army	2,519,054	559,283	3,078,337
Total Department of the Army	2,519,054	559,283	3,078,337



## UNCLASSIFIED

Department of the Army  
 FY 2018 President's Budget  
 Exhibit P-1 FY 2018 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

03 May 2017

## Appropriation: Missile Procurement, Army

Budget Activity	FY 2016 (Base & OCO)	FY 2017 with CR Adj Base	FY 2017 with CR Adj OCO	FY 2017 with CR Adj Total
02. Other Missiles	1,306,007	1,634,928	462,517	2,097,445
03. Modification of Missiles	334,404	697,136		697,136
04. Spares and Repair Parts	33,778	34,487		34,487
05. Support Equipment and Facilities	9,965	6,069		6,069
20. Undistributed		77,948	-595,557	-517,609
Total Missile Procurement, Army	1,684,154	2,450,568	-133,040	2,317,528

## UNCLASSIFIED

Department of the Army  
 FY 2018 President's Budget  
 Exhibit P-1 FY 2018 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

03 May 2017

Appropriation: Missile Procurement, Army

Budget Activity -----	FY 2018 Base -----	FY 2018 OCO -----	FY 2018 Total -----
02. Other Missiles	1,770,256	531,283	2,301,539
03. Modification of Missiles	722,966	28,000	750,966
04. Spares and Repair Parts	18,915		18,915
05. Support Equipment and Facilities	6,917		6,917
20. Undistributed			
Total Missile Procurement, Army	2,519,054	559,283	3,078,337

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Department of the Army  
 FY 2018 President's Budget  
 Exhibit P-1 FY 2018 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

03 May 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2016 (Base & OCO)		FY 2017 with CR Adj Base		FY 2017 with CR Adj OCO		FY 2017 with CR Adj Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 02: Other Missiles											
Surface-to-Air Missile System											
1	Lower Tier Air and Missile Defense (AMD)	A		130,275		126,470				126,470	U
2	MSE Missile		112	514,946	85	702,201			85	702,201	U
3	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I Less: Advance Procurement (PY)	A									U U
4	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I Advance Procurement (CY) C (FY 2017 for FY 2018) (M)					19,319 (19,319)				19,319 (19,319)	U
Air-To-Surface Missile System											
5	Hellfire Sys Summary	A	383	86,325	155	42,013	4055	228,330	4210	270,343	U
6	Joint Air-To-Ground MsIs (JAGM) Less: Advance Procurement (PY)				324	(92,489) (-27,738)			324	(92,489) (-27,738)	U U
7	Joint Air-To-Ground MsIs (JAGM) Advance Procurement (CY) C (FY 2016 for FY 2017) (M) C (FY 2017 for FY 2018) (M)			27,738 (27,738)		37,100 (37,100)				37,100 (37,100)	U
Anti-Tank/Assault Missile Sys											
8	Javelin (Aaws-M) System Summary		850	168,163	900	177,708	83	15,567	983	193,275	U

P-1C1: FY 2018 President's Budget, as of May 3, 2017 at 17:12:18

UNCLASSIFIED

Page A-3

## UNCLASSIFIED

Department of the Army  
 FY 2018 President's Budget  
 Exhibit P-1 FY 2018 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

03 May 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2018 Base		FY 2018 OCO		FY 2018 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 02: Other Missiles									
Surface-to-Air Missile System									
1	Lower Tier Air and Missile Defense (AMD)	A		140,826				140,826	U
2	MSE Missile		93	459,040			93	459,040	U
3	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I Less: Advance Procurement (PY)	A		(77,061) (-19,319)				(77,061) (-19,319)	U
				57,742				57,742	
4	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I Advance Procurement (CY) C (FY 2017 for FY 2018) (M)								U
Air-To-Surface Missile System									
5	Hellfire Sys Summary	A	998	94,790	2927	278,073	3925	372,863	U
6	Joint Air-To-Ground Msls (JAGM) Less: Advance Procurement (PY)		824	(215,532) (-37,100)			824	(215,532) (-37,100)	U
				178,432				178,432	
7	Joint Air-To-Ground Msls (JAGM) Advance Procurement (CY) C (FY 2016 for FY 2017) (M) C (FY 2017 for FY 2018) (M)								U
Anti-Tank/Assault Missile Sys									
8	Javelin (Aaws-M) System Summary		525	110,123	47	8,112	572	118,235	U

P-1C1: FY 2018 President's Budget, as of May 3, 2017 at 17:12:18

UNCLASSIFIED

Page A-3A

## UNCLASSIFIED

Department of the Army  
 FY 2018 President's Budget  
 Exhibit P-1 FY 2018 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

03 May 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2016 (Base & OCO)		FY 2017 with CR Adj Base		FY 2017 with CR Adj OCO		FY 2017 with CR Adj Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
9	Tow 2 System Summary	A	1704	(107,509)	1133	(100,825)	815	(80,652)	1948	(181,477)	U
	Less: Advance Procurement (PY)			(-19,984)							U
				87,525		100,825		80,652		181,477	
10	Tow 2 System Summary										
	Advance Procurement (CY)					19,949				19,949	U
	C (FY 2017 for FY 2018) (M)					(19,949)				(19,949)	
	C (FY 2018 for FY 2019) (M)										
11	Guided MLRS Rocket (GMLRS)		1866	251,060	2256	326,588	698	75,991	2954	402,579	U
12	MLRS Reduced Range Practice Rockets (RRPR)		4026	39,975	1704	18,004			1704	18,004	U
13	High Mobility Artillery Rocket System (HIMARS)										U
14	LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	A					655	61,977	655	61,977	U
Total Other Missiles				1,306,007		1,634,928		462,517		2,097,445	
<u>Budget Activity 03: Modification of Missiles</u>											
Modifications											
15	Patriot Mods			241,883	58	425,307			58	425,307	U
16	ATACMS MODS	A		20,119	17	165,943			17	165,943	U
17	GMLRS MOD	A		5,321		395				395	U
18	Stinger Mods			2,216	275	6,578			275	6,578	U
19	Avenger Mods			6,171	16	35,979			16	35,979	U
20	Itas/Tow Mods			19,576		383				383	U
21	MLRS Mods			35,970		34,704				34,704	U

P-1C1: FY 2018 President's Budget, as of May 3, 2017 at 17:12:18

UNCLASSIFIED

Page A-4

## UNCLASSIFIED

Department of the Army  
 FY 2018 President's Budget  
 Exhibit P-1 FY 2018 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

03 May 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2018 Base		FY 2018 OCO		FY 2018 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
9	Tow 2 System Summary	A	1156	(105,800)	49	(3,907)	1205	(109,707)	U
	Less: Advance Procurement (PY)			(-19,949)				(-19,949)	U
				85,851		3,907		89,758	
10	Tow 2 System Summary								
	Advance Procurement (CY)			19,949				19,949	U
	C (FY 2017 for FY 2018) (M)								
	C (FY 2018 for FY 2019) (M)			(19,949)				(19,949)	
11	Guided MLRS Rocket (GMLRS)		4458	595,182	1542	191,522	6000	786,704	U
12	MLRS Reduced Range Practice Rockets (RRPR)		3306	28,321			3306	28,321	U
13	High Mobility Artillery Rocket System (HIMARS)					41,000		41,000	U
14	LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	A			120	8,669	120	8,669	U
Total Other Missiles				1,770,256		531,283		2,301,539	
Budget Activity 03: Modification of Missiles									
Modifications									
15	Patriot Mods			329,073				329,073	U
16	ATACMS MODS	A		116,040				116,040	U
17	GMLRS MOD	A		531				531	U
18	Stinger Mods			63,090		28,000		91,090	U
19	Avenger Mods			62,931				62,931	U
20	Itas/Tow Mods			3,500				3,500	U
21	MLRS Mods			138,235				138,235	U

P-1C1: FY 2018 President's Budget, as of May 3, 2017 at 17:12:18

UNCLASSIFIED

Page A-4A

## UNCLASSIFIED

Department of the Army  
 FY 2018 President's Budget  
 Exhibit P-1 FY 2018 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

03 May 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2016 (Base & OCO)		FY 2017 with CR Adj Base		FY 2017 with CR Adj OCO		FY 2017 with CR Adj Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
22	Himars Modifications			3,148	363	27,847			363	27,847	U
Total Modification of Missiles				334,404		697,136				697,136	
Budget Activity 04: Spares and Repair Parts											
Spares and Repair Parts											
23	Spares and Repair Parts			33,778		34,487				34,487	U
Total Spares and Repair Parts				33,778		34,487				34,487	
Budget Activity 05: Support Equipment and Facilities											
Support Equipment & Facilities											
24	Air Defense Targets			3,717		4,915				4,915	U
25	Items Less Than \$5.0m (Missiles)			1,544							U
26	Production Base Support			4,704		1,154				1,154	U
Total Support Equipment and Facilities				9,965		6,069				6,069	
Budget Activity 20: Undistributed											
Undistributed											
27	Adj to Match Continuing Resolution	A				77,948		-595,557		-517,609	U
Total Undistributed						77,948		-595,557		-517,609	
Total Missile Procurement, Army				1,684,154		2,450,568		-133,040		2,317,528	

P-1C1: FY 2018 President's Budget, as of May 3, 2017 at 17:12:18

UNCLASSIFIED

Page A-5

## UNCLASSIFIED

Department of the Army  
 FY 2018 President's Budget  
 Exhibit P-1 FY 2018 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

03 May 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2018 Base		FY 2018 OCO		FY 2018 Total		S e c	
			Quantity	Cost	Quantity	Cost	Quantity	Cost		
22	Himars Modifications			9,566				9,566	U	
Total Modification of Missiles				722,966		28,000		750,966		
<u>Budget Activity 04: Spares and Repair Parts</u>										
Spares and Repair Parts										
23	Spares and Repair Parts			18,915				18,915	U	
Total Spares and Repair Parts				18,915				18,915		
<u>Budget Activity 05: Support Equipment and Facilities</u>										
Support Equipment & Facilities										
24	Air Defense Targets			5,728				5,728	U	
25	Items Less Than \$5.0m (Missiles)								U	
26	Production Base Support			1,189				1,189	U	
Total Support Equipment and Facilities				6,917				6,917		
<u>Budget Activity 20: Undistributed</u>										
Undistributed										
27	Adj to Match Continuing Resolution	A							U	
Total Undistributed										
Total Missile Procurement, Army				2,519,054		559,283		3,078,337		

P-1C1: FY 2018 President's Budget, as of May 3, 2017 at 17:12:18

UNCLASSIFIED

Page A-5A





**UNCLASSIFIED**

Army • Budget Estimates FY 2018 • Procurement

**Table of Contents**

**Line Item Table of Contents (by Appropriation then Line Number)..... ii**  
**Line Item Table of Contents (Alphabetically by Line Item Title)..... v**  
**Exhibit P-40s..... 1**

**UNCLASSIFIED**

Army • Budget Estimates FY 2018 • Procurement

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

***Appropriation 2032A: Missile Procurement, Army***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
1	02	10	C50016	Lower Tier Air and Missile Defense (AMD).....	1
2	02	10	C53101	MSE Missile.....	5
3	02	10	C61001	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I.....	15
4	02	10	C61001	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I, Advance Procurement.....	20
5	02	20	C70000	Hellfire Sys Summary.....	24
6	02	20	C70302	Joint Air-to-Ground MSLS (JAGM).....	33
7	02	20	C70302	Joint Air-to-Ground MSLS (JAGM), Advance Procurement.....	41
8	02	30	CC0007	Javelin (AAWS-M) System Summary.....	45
9	02	30	C59300	TOW 2 System Summary.....	54
10	02	30	C59300	TOW 2 System Summary, Advance Procurement.....	64
11	02	30	C64400	Guided MLRS Rocket (GMLRS).....	68
12	02	30	C65405	MLRS Reduced Range Practice Rockets (RRPR).....	78
13	02	30	C02901	High Mobility Artillery Rocket System (HIMARS).....	87
14	02	30	C88001	LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS).....	92

**UNCLASSIFIED**

**UNCLASSIFIED**

Army • Budget Estimates FY 2018 • Procurement

***Appropriation 2032A: Missile Procurement, Army***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
15	03	10	C50700	Patriot Mods.....	94
16	03	10	CA6700	ATACMS MODS.....	123
17	03	10	C57701	GMLRS MOD.....	128
18	03	10	C20000	Stinger Mods.....	130
19	03	10	CE8710	AVENGER MODS.....	135
20	03	10	C61700	ITAS/TOW Mods.....	149
21	03	10	C67500	MLRS Mods.....	151
22	03	10	C67501	HIMARS Modifications.....	163

***Appropriation 2032A: Missile Procurement, Army***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
23	04	10	CA0250	Spares And Repair Parts.....	164

**UNCLASSIFIED**

**UNCLASSIFIED**

Army • Budget Estimates FY 2018 • Procurement

***Appropriation 2032A: Missile Procurement, Army***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
24	05	10	C93000	Air Defense Targets.....	165
25	05	10	CL2000	Items Less Than \$5.0m (Missiles).....	167
26	05	10	CA0100	Production Base Support.....	168

**UNCLASSIFIED**

**UNCLASSIFIED**

Army • Budget Estimates FY 2018 • Procurement

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

<b>Line Item Title</b>	<b>Line Item Number</b>	<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Page</b>
ATACMS MODS	CA6700	16	03	10.....	123
AVENGER MODS	CE8710	19	03	10.....	135
Air Defense Targets	C93000	24	05	10.....	165
GMLRS MOD	C57701	17	03	10.....	128
Guided MLRS Rocket (GMLRS)	C64400	11	02	30.....	68
HIMARS Modifications	C67501	22	03	10.....	163
Hellfire Sys Summary	C70000	5	02	20.....	24
High Mobility Artillery Rocket System (HIMARS)	C02901	13	02	30.....	87
INDIRECT FIRE PROTECTION CAPABILITY INC 2-I	C61001	3	02	10.....	15
INDIRECT FIRE PROTECTION CAPABILITY INC 2-I, Advance Procurement	C61001	4	02	10.....	20
ITAS/TOW Mods	C61700	20	03	10.....	149
Items Less Than \$5.0m (Missiles)	CL2000	25	05	10.....	167
Javelin (AAWS-M) System Summary	CC0007	8	02	30.....	45
Joint Air-to-Ground MSLS (JAGM)	C70302	6	02	20.....	33
Joint Air-to-Ground MSLS (JAGM), Advance Procurement	C70302	7	02	20.....	41
LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	C88001	14	02	30.....	92
Lower Tier Air and Missile Defense (AMD)	C50016	1	02	10.....	1

**UNCLASSIFIED**

**UNCLASSIFIED**

Army • Budget Estimates FY 2018 • Procurement

<b>Line Item Title</b>	<b>Line Item Number</b>	<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Page</b>
MLRS Mods	C67500	21	03	10.....	151
MLRS Reduced Range Practice Rockets (RRPR)	C65405	12	02	30.....	78
MSE Missile	C53101	2	02	10.....	5
Patriot Mods	C50700	15	03	10.....	94
Production Base Support	CA0100	26	05	10.....	168
Spares And Repair Parts	CA0250	23	04	10.....	164
Stinger Mods	C20000	18	03	10.....	130
TOW 2 System Summary	C59300	9	02	30.....	54
TOW 2 System Summary, Advance Procurement	C59300	10	02	30.....	64

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**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:**  
 C50016 / Lower Tier Air and Missile Defense (AMD)

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

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

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	110.300	130.275	126.470	140.826	-	140.826	125.161	144.243	119.282	121.825	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	110.300	130.275	126.470	140.826	-	140.826	125.161	144.243	119.282	121.825	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>110.300</b>	<b>130.275</b>	<b>126.470</b>	<b>140.826</b>	-	<b>140.826</b>	<b>125.161</b>	<b>144.243</b>	<b>119.282</b>	<b>121.825</b>	<b>Continuing</b>	<b>Continuing</b>

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

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

**Description:**

The Lower Tier Air and Missile Defense (AMD) supports the Field Surveillance Program (FSP), PAC-3 Missile Support Center (P3MSC), International Engineering Services Program (IESP), Integrated Logistics Support (ILS), US Unique 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 confirmed 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 sustain, maintain, 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, 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.

Logistics Recurring includes all aspects of Integrated Logistics Support (ILS) management, e.g., maintenance support, facilities, personnel, training, testing, and fielding.



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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air Missile System		<b>P-1 Line Item Number / Title:</b> C50016 / Lower Tier Air and Missile Defense (AMD)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		

Funding provides authority to procure, field and support materiel solutions to counter cybersecurity and electronic warfare shortcomings to all elements of the Patriot Air Defense Weapon System.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	130.275	126.470	140.826	-	140.826	125.161	144.243	119.282	121.825
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>130.275</b>	<b>126.470</b>	<b>140.826</b>	-	<b>140.826</b>	<b>125.161</b>	<b>144.243</b>	<b>119.282</b>	<b>121.825</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**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:** C50016 / Lower Tier Air and Missile Defense (AMD)

**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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	C50016 / Lower Tier Air and Missile Defense (AMD)				- / 110.300	- / 130.275	- / 126.470	- / 140.826	- / -	- / 140.826
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 110.300</b>	<b>- / 130.275</b>	<b>- / 126.470</b>	<b>- / 140.826</b>	<b>- / -</b>	<b>- / 140.826</b>

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

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

**Justification:**  
 FY18 base procurement dollars in the amount of \$140.826 million supports the Field Surveillance Program (FSP), PAC-3 Missile Support Center (P3MSC), International Engineering Services Program (IESP), Integrated Logistics Support (ILS), and System Engineering Program Management (SEPM) activities.  
  
 Funds in the program were realigned in FY2015 from C53101 (MSE) to reflect those requirements that are not unique to MSE.

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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10	<b>P-1 Line Item Number / Title:</b> C50016 / Lower Tier Air and Missile Defense (AMD)	<b>Item Number / Title [DODIC]:</b> C50016 / Lower Tier Air and Missile Defense (AMD)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	110.300	130.275	126.470	140.826	-	140.826
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	110.300	130.275	126.470	140.826	-	140.826
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>110.300</b>	<b>130.275</b>	<b>126.470</b>	<b>140.826</b>	<b>-</b>	<b>140.826</b>

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

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

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Field Surveillance Program	-	-	110.300	-	-	15.000	-	-	16.500	-	-	15.000	-	-	-	-	-	15.000
P3MSC	-	-	-	-	-	5.500	-	-	10.500	-	-	11.300	-	-	-	-	-	11.300
International Engr Services Program	-	-	-	-	-	72.000	-	-	59.500	-	-	61.361	-	-	-	-	-	61.361
System Engineering/ Project Management	-	-	-	-	-	9.200	-	-	9.600	-	-	14.300	-	-	-	-	-	14.300
Logistics Recurring	-	-	-	-	-	28.575	-	-	30.370	-	-	38.865	-	-	-	-	-	38.865
<i>Subtotal: Recurring Cost</i>	-	-	<i>110.300</i>	-	-	<i>130.275</i>	-	-	<i>126.470</i>	-	-	<i>140.826</i>	-	-	-	-	-	<i>140.826</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>110.300</i>	-	-	<i>130.275</i>	-	-	<i>126.470</i>	-	-	<i>140.826</i>	-	-	-	-	-	<i>140.826</i>
<b>Gross/Weapon System Cost</b>	-	-	<b>110.300</b>	-	-	<b>130.275</b>	-	-	<b>126.470</b>	-	-	<b>140.826</b>	-	-	-	-	-	<b>140.826</b>

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	130.275	126.470	140.826	-	140.826
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>130.275</b>	<b>126.470</b>	<b>140.826</b>	<b>-</b>	<b>140.826</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**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:** C53101 / 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:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	200	112	145	93	-	93	95	95	95	95	283	1,213
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,304.643	514.946	702.201	459.040	-	459.040	499.915	540.669	523.413	524.934	1,409.000	6,478.761
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,304.643	514.946	702.201	459.040	-	459.040	499.915	540.669	523.413	524.934	1,409.000	6,478.761
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>1,304.643</b>	<b>514.946</b>	<b>702.201</b>	<b>459.040</b>	<b>-</b>	<b>459.040</b>	<b>499.915</b>	<b>540.669</b>	<b>523.413</b>	<b>524.934</b>	<b>1,409.000</b>	<b>6,478.761</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	6,523.215	4,597.732	4,842.766	4,935.914	-	4,935.914	5,262.263	5,691.253	5,509.611	5,525.621	4,978.799	5,341.106

**Description:**

The Missile Segment Enhancement (MSE) missile evolved from the PATRIOT Advanced Capability 3 (PAC-3) missile. The MSE is based on the PAC-3 Cost Reduction Initiative (CRI) missile design and improves on it for a higher performance, dual pulse, eleven-inch diameter Solid Rocket Motor (SRM) design, improved lethality enhancer, thermally hardened front end for longer fly out, upgraded batteries, enlarged fixed fins, more responsive control surfaces, and upgraded guidance software. These improvements provide a more agile, lethal interceptor missile and coupled with critical ground system improvements (Radar Digital Processor (RDP) and Software) to provide a substantial missile performance improvement while enhancing Insensitive Munitions (IM) compliance. A more IM compliant propellant for the SRM was developed for the MSE program as well as a less sensitive Lethality Enhancer. A single canister design provides enhanced warfighter and logistics flexibility, and facilitates IM compliance for greater warfighter safety. The MSE was developed to integrate with the PATRIOT system for the U.S. and international partners.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	112	145	93	-	93	95	95	95	95
	Total Obligation Authority	514.946	702.201	459.040	-	459.040	499.915	540.669	523.413	524.934
<b>Total:</b> Secondary Distribution	Quantity	<b>112</b>	<b>145</b>	<b>93</b>	<b>-</b>	<b>93</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>
	Total Obligation Authority	<b>514.946</b>	<b>702.201</b>	<b>459.040</b>	<b>-</b>	<b>459.040</b>	<b>499.915</b>	<b>540.669</b>	<b>523.413</b>	<b>524.934</b>

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**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:**  
 C53101 / 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:** N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	C53101 / MSE Missile	P-5a, P-21		492	200 / 1,304.643	112 / 514.946	145 / 702.201	93 / 459.040	- / -	93 / 459.040
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>200 / 1,304.643</b>	<b>112 / 514.946</b>	<b>145 / 702.201</b>	<b>93 / 459.040</b>	<b>- / -</b>	<b>93 / 459.040</b>

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

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

**Justification:**  
 The FY 2018 base procurement dollars in the amount of \$459.040 million supports the production of 93 Missile Segment Enhancement (MSE) missiles, Launcher Mod Kits (LMK), Field Surveillance Program (FSP), supporting equipment, ancillary missile items, PAC-3 Missile Support Center (P3MSC) and Obsolescence, System Engineering/Program Management (SE/PM), and support.

Army Acquisition Objective (AAO) is 3376.

\*Unit prices reflect an assessed yearly 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, 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.

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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10	<b>P-1 Line Item Number / Title:</b> C53101 / MSE Missile	<b>Item Number / Title [DODIC]:</b> C53101 / MSE Missile

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b> 492
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	200	112	145	93	-	93
Gross/Weapon System Cost (\$ in Millions)	1,304.643	514.946	702.201	459.040	-	459.040
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,304.643	514.946	702.201	459.040	-	459.040
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,304.643</b>	<b>514.946</b>	<b>702.201</b>	<b>459.040</b>	<b>-</b>	<b>459.040</b>

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	6,523.215	4,597.732	4,842.766	4,935.914	-	4,935.914

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Missile Hardware <sup>(†)</sup>	4,539.535	200	907.907	3,940.179	112	441.300	4,263.917	145	618.268	4,303.355	93	400.212	-	-	-	4,303.355	93	400.212
Field Surveillance	-	-	28.500	-	-	2.900	-	-	5.427	-	-	3.400	-	-	-	-	-	3.400
PAC-3 Missile Support Center (P3MSC)	-	-	13.600	-	-	1.600	-	-	3.600	-	-	1.700	-	-	-	-	-	1.700
Obsolescence	-	-	38.505	-	-	16.700	-	-	10.833	-	-	15.928	-	-	-	-	-	15.928
Launcher Mod Kit (LMK)	-	-	19.200	-	-	5.900	-	-	23.400	-	-	14.600	-	-	-	-	-	14.600
Heater Kits	-	-	2.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Msl Round Trainer / Empty Round Trainer	-	-	67.900	-	-	30.726	-	-	18.600	-	-	-	-	-	-	-	-	-
Initial Production Facilitation	-	-	88.313	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government/Software Engineering	-	-	6.200	-	-	6.340	-	-	9.440	-	-	9.560	-	-	-	-	-	9.560
Sys Engrg/Proj Mgmt (SE/PM) Contractor	-	-	132.018	-	-	9.480	-	-	12.633	-	-	13.640	-	-	-	-	-	13.640
<b>Subtotal: Recurring Cost</b>	<b>-</b>	<b>-</b>	<b>1,304.643</b>	<b>-</b>	<b>-</b>	<b>514.946</b>	<b>-</b>	<b>-</b>	<b>702.201</b>	<b>-</b>	<b>-</b>	<b>459.040</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>459.040</b>
<b>Subtotal: Flyaway Cost</b>	<b>-</b>	<b>-</b>	<b>1,304.643</b>	<b>-</b>	<b>-</b>	<b>514.946</b>	<b>-</b>	<b>-</b>	<b>702.201</b>	<b>-</b>	<b>-</b>	<b>459.040</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>459.040</b>
<b>Gross/Weapon System Cost</b>	<b>6,523.215</b>	<b>200</b>	<b>1,304.643</b>	<b>4,597.732</b>	<b>112</b>	<b>514.946</b>	<b>4,842.766</b>	<b>145</b>	<b>702.201</b>	<b>4,935.914</b>	<b>93</b>	<b>459.040</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,935.914</b>	<b>93</b>	<b>459.040</b>

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**Exhibit P-5, Cost Analysis: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10	<b>P-1 Line Item Number / Title:</b> C53101 / MSE Missile	<b>Item Number / Title [DODIC]:</b> C53101 / MSE Missile
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:** 492

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	112	145	93	-	93
	Total Obligation Authority	514.946	702.201	459.040	-	459.040
<b>Total:</b>	<b>Quantity</b>	<b>112</b>	<b>145</b>	<b>93</b>	<b>-</b>	<b>93</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>514.946</b>	<b>702.201</b>	<b>459.040</b>	<b>-</b>	<b>459.040</b>

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

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**Exhibit P-5a, Procurement History and Planning: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10	<b>P-1 Line Item Number / Title:</b> C53101 / MSE Missile	<b>Item Number / Title [DODIC]:</b> C53101 / MSE Missile
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Missile Hardware <sup>(†)</sup>		2014	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, A L	Mar 2014	Sep 2015	92	4,303.360	Y		Oct 2013
Missile Hardware <sup>(†)</sup>		2015	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Jul 2015	Feb 2017	108	4,425.000	Y		May 2014
Missile Hardware <sup>(†)</sup>		2016	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Dec 2015	Aug 2018	112	3,940.180	Y		May 2014
Missile Hardware <sup>(†)</sup>		2017	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Dec 2016	Jun 2019	145	4,263.920	Y		Dec 2015
Missile Hardware <sup>(†)</sup>		2018	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Dec 2017	Jun 2020	93	4,303.360	Y		Dec 2015

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

**Remarks:**  
Delivery dates in excess of PLT of 17 months from Award is due to a mandated change in contract type from FFP to FPIF on an undefinitized contract action.



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**Exhibit P-21, Production Schedule: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10	<b>P-1 Line Item Number / Title:</b> C53101 / MSE Missile	<b>Item Number / Title [DODIC]:</b> C53101 / MSE Missile
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Cost Elements (Units in Each)						Fiscal Year 2014												Fiscal Year 2015												BALANCE					
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015																
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P				
Missile Hardware																																			
	1	2014	ARMY	92	0	92																											12	80	
	1	2015	ARMY	108	0	108																									A -	-	-	108	
	1	2016	ARMY	112	0	112																												112	
	1	2017	ARMY	145	0	145																													145
	1	2018	ARMY	93	0	93																													93
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: FY 2018 Army** **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A / 02 / 10 **P-1 Line Item Number / Title:** C53101 / MSE Missile **Item Number / Title [DODIC]:** C53101 / MSE Missile

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016												Fiscal Year 2017												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Missile Hardware																															
	1	2014	ARMY	92	12	80	4	-	-	-	-	-	-	16	18	20	22												0		
	1	2015	ARMY	108	0	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	8	10	8	10	6	10	10	36		
	1	2016	ARMY	112	0	112			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	112			
	1	2017	ARMY	145	0	145														A	-	-	-	-	-	-	-	145			
	1	2018	ARMY	93	0	93																						93			

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10	<b>P-1 Line Item Number / Title:</b> C53101 / MSE Missile	<b>Item Number / Title [DODIC]:</b> C53101 / MSE Missile
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Missile Hardware																															
	1	2014	ARMY	92	92	0																							0		
	1	2015	ARMY	108	72	36	10	8	10	8																			0		
	1	2016	ARMY	112	0	112	-	-	-	-	-	-	-	-	8	10	10	10	10	10	10	10	14	8	10	12				0	
	1	2017	ARMY	145	0	145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	13	13	11	95	
	1	2018	ARMY	93	0	93			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	93		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: FY 2018 Army** **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A / 02 / 10 **P-1 Line Item Number / Title:** C53101 / MSE Missile **Item Number / Title [DODIC]:** C53101 / MSE Missile

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Missile Hardware																															
1		2014	ARMY	92	92	0																							0		
1		2015	ARMY	108	108	0																							0		
1		2016	ARMY	112	112	0																							0		
1		2017	ARMY	145	50	95	13	11	13	13	11	11	12	11															0		
1		2018	ARMY	93	0	93	-	-	-	-	-	-	-	-	10	6	10	6	10	8	7	6	8	8	8	6	0				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> FY 2018 Army									<b>Date:</b> May 2017			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10					<b>P-1 Line Item Number / Title:</b> C53101 / MSE Missile				<b>Item Number / Title [DODIC]:</b> C53101 / MSE Missile			
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	LMMFC - Dallas, TX	72	240	360	0	6	17	23	0	6	17	23

**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.

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

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

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification: FY 2018 Army** **Date:** May 2017

**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:** C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-I

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

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

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	12	20	36	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	19.319	57.742	-	57.742	157.406	368.211	415.425	292.100	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	0.000	-	-	-	0.000	31.641	-	-	Continuing	Continuing
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	-	19.319	57.742	-	57.742	157.406	336.570	415.425	292.100	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	19.319	-	-	-	31.641	-	-	-	Continuing	Continuing
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	<b>38.638</b>	<b>57.742</b>	-	<b>57.742</b>	<b>189.047</b>	<b>336.570</b>	<b>415.425</b>	<b>292.100</b>	<b>Continuing</b>	<b>Continuing</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	30,684.250	20,771.250	8,113.889	Continuing	Continuing

**Description:**

This program supports the overall integrated Air and Missile Defense (AMD) architecture and provides a robust intercept capability against Cruise Missiles (CM) and Unmanned Aircraft System (UAS).

The Indirect Fire Protection Capability Increment 2 - Intercept (IFPC Inc 2-I) is a ground-based weapon system that will be designed to acquire, track, engage, and defeat the UAS, CM, and RAM threats. The system will provide 360-degree protection and will simultaneously engage threats arriving from different azimuths. A block acquisition approach will be used to provide this capability. The IFPC Inc 2-I Block 1 system will consist of an existing interceptor and sensor and development of fire control software and a Multi-Mission Launcher (MML) to support the UAS and CM defeat mission. The IFPC Inc 2-I system will be compatible with the Army Integrated Air and Missile Defense (IAMD) Command and Control (C2) architecture. The IFPC Inc 2-I system will be transportable by Army common mobile platforms.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	12	20	36
Total Obligation Authority	-	-	57.742	-	57.742	189.047	336.570	415.425	292.100
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	12	20	36
Total Obligation Authority	-	-	57.742	-	57.742	189.047	336.570	415.425	292.100

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**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:** C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-I

**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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	C62001 / IFPC Inc 2-I Block 1 Missile				- / -	- / -	- / -	- / 57.742	- / -	- / 57.742
P-5	C62002 / IFPC INC 2-I BLOCK 1 SYSTEM			473	- / -	- / -	- / 19.319	- / -	- / -	- / -
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / -	- / -	- / 19.319	- / 57.742	- / -	- / 57.742

\*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 2018 Base procurement dollars in the amount of \$57.742 million supports the procurement of 126 AIM-9X Block II All-Up-Rounds (AUR), 3 Captured Air Training Missiles (CATM), and 15 Dummy Air Training Missiles (DATM) in support of the Multi-Mission Launcher (MML).

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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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10	<b>P-1 Line Item Number / Title:</b> C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-1	<b>Item Number / Title [DODIC]:</b> C62001 / IFPC Inc 2-1 Block 1 Missile

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	-	57.742	-	57.742
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	-	57.742	-	57.742
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	-	-	-	<b>57.742</b>	-	<b>57.742</b>

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

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

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<b>Flyaway Cost</b>																		
Non Recurring Cost																		
Hardware Cost - AIM-9X Block II All Up Round (AUR)	-	-	-	-	-	-	-	-	-	439.524	126	55.380	-	-	-	439.524	126	55.380
Other Flyaway	-	-	-	-	-	-	-	-	-	-	-	0.985	-	-	-	-	-	0.985
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	56.365	-	-	-	-	-	56.365
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<b>56.365</b>	-	-	-	-	-	<b>56.365</b>
<b>Logistics Cost</b>																		
Recurring Cost																		
Training - AIM-9X Block II Captured Air Training Missile (CATM)	-	-	-	-	-	-	-	-	-	-	-	0.672	-	-	-	-	-	0.672
Training - AIM-9X Block II Dummy Air Training Missile (DATM)	-	-	-	-	-	-	-	-	-	-	-	0.705	-	-	-	-	-	0.705
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	1.377	-	-	-	-	-	1.377
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<b>1.377</b>	-	-	-	-	-	<b>1.377</b>
<b>Gross/Weapon System Cost</b>	-	-	-	-	-	-	-	-	-	-	-	<b>57.742</b>	-	-	-	-	-	<b>57.742</b>



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10	<b>P-1 Line Item Number / Title:</b> C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2- 1	<b>Item Number / Title [DODIC]:</b> C62001 / IFPC Inc 2-I Block 1 Missile

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

<b>Secondary Distribution</b>		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	57.742	-	57.742
<b>Total: Secondary Distribution</b>	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	57.742	-	57.742

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10	<b>P-1 Line Item Number / Title:</b> C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-1	<b>Item Number / Title [DODIC]:</b> C62002 / IFPC INC 2-I BLOCK 1 SYSTEM

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b> 473
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	19.319	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	0.000	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	-	19.319	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	19.319	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	<b>38.638</b>	-	-	-

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

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

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

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2016</b>			<b>FY 2017</b>			<b>FY 2018 Base</b>			<b>FY 2018 OCO</b>			<b>FY 2018 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
Hardware Cost																		
Non Recurring Cost																		
Adv Procurement - PY	-	-	-	-	-	-	-	-	19.319	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	19.319	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	19.319	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	-	-	-	-	-	-	19.319	-	-	-	-	-	-	-	-	-

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**Exhibit P-40, Advance Procurement Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air Missile System	<b>P-1 Line Item Number / Title:</b> C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-I
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<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	19.319	-	-	-	31.641	-	-	-	Continuing	Continuing
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	-	19.319	-	-	-	31.641	-	-	-	Continuing	Continuing
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	<b>19.319</b>	-	-	-	<b>31.641</b>	-	-	-	<b>Continuing</b>	<b>Continuing</b>

**Description:**

This program supports the overall integrated Air and Missile Defense (AMD) architecture and provides a robust intercept capability against Cruise Missiles (CM) and Unmanned Aircraft System (UAS).

The Indirect Fire Protection Capability Increment 2 - Intercept (IFPC Inc 2-I) is a ground-based weapon system that will be designed to acquire, track, engage, and defeat the UAS, CM, and RAM threats. The system will provide 360-degree protection and will simultaneously engage threats arriving from different azimuths. A block acquisition approach will be used to provide this capability. The IFPC Inc 2-I Block 1 system will consist of an existing interceptor and sensor and development of fire control software and a Multi-Mission Launcher (MML) to support the UAS and CM defeat mission. The IFPC Inc 2-I system will be compatible with the Army Integrated Air and Missile Defense (IAMD) Command and Control (C2) architecture. The IFPC Inc 2-I system will be transportable by Army common mobile platforms.

This budget line funds the acquisition of advance procurement items required to support the production of the IFPC Inc 2-I system.

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**Exhibit P-40, Advance Procurement Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air Missile System	<b>P-1 Line Item Number / Title:</b> C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-I
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Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule				Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-10	C62002 / IFPC INC 2-I BLOCK 1 SYSTEM			- / -	- / -	- / 19.319	- / -	- / -	- / -
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>			- / -	- / -	- / 19.319	- / -	- / -	- / -

\*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:**

This budget line funds the acquisition of advance procurement items required to support the production of the IFPC Inc 2-I system.

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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<b>Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification):</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10	<b>P-1 Line Item Number / Title:</b> C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-1	<b>P-5 Number / Title:</b> C62002 / IFPC INC 2-I BLOCK 1 SYSTEM

<b>MDAP/MAIS Code:</b> 473		
<b>First System (2018) Award Date:</b> February 2019	<b>First System (2018) Completion Date:</b> July 2020	<b>Interval Between Systems:</b> 12 Months

<b>IFPC INC 2-I BLOCK 1 SYSTEM</b>	<b>Production Leadtime (Months)</b>	<b>Prior Years (Each)</b>	<b>FY 2016 (Each)</b>	<b>FY 2017 (Each)</b>	<b>FY 2018 (Each)</b>
Quantity		-	-	-	-

<b>Cost Elements</b>	<b>When Required (Months)</b>	<b>Prior Years (\$ M)</b>	<b>FY 2016 (\$ M)</b>	<b>FY 2017 (\$ M)</b>	<b>FY 2018 (\$ M)</b>
<b>GFE</b>					
Rail Assembly	0	-	-	10.665	-
Weapon Control Unit (WCU)	0	-	-	2.700	-
Weapon Interface Unit (WIU)	0	-	-	0.783	-
SEPM	0	-	-	3.620	-
Common Power Supply	0	-	-	0.450	-
Launch Control Unit (LCU)	0	-	-	0.450	-
eTALIN	0	-	-	0.651	-
<i>Total: GFE</i>		-	-	19.319	-
<b>Total Advance Procurement/Obligation Authority</b>		-	-	<b>19.319</b>	-

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<b>Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification):</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 10	<b>P-1 Line Item Number / Title:</b> C61001 / INDIRECT FIRE PROTECTION CAPABILITY INC 2-1	<b>P-5 Number / Title:</b> C62002 / IFPC INC 2-I BLOCK 1 SYSTEM

Cost Elements	QPA <i>(Each)</i>	FY 2018					Total Cost Request <i>(\$ M)</i>
		Production Leadtime <i>(Months)</i>	Unit Cost <i>(\$ K)</i>	Contract Forecast Date	2018 Qty <i>(Each)</i>	For FY	
<b>GFE</b>							
Rail Assembly	15						-
Weapon Control Unit (WCU)	15						-
Weapon Interface Unit (WIU)	1						-
SEPM	1						-
Common Power Supply	1						-
Launch Control Unit (LCU)	1						-
eTALIN	1						-
<i>Total: GFE</i>							-
<b>Total Advance Procurement/Obligation Authority</b>							-

**Description:**  
N/A

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 20: Air-To-Surface Missile System **P-1 Line Item Number / Title:** C70000 / Hellfire Sys Summary

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203802A, 0210109A

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

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	76,301	383	4,210	998	2,927	3,925	100	1,480	-	-	-	86,399
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	5,512.661	86.325	497.843	94.790	278.073	372.863	13.838	133.213	3.600	-	-	6,620.343
Less PY Advance Procurement ( <i>\$ in Millions</i> )	44.275	-	-	-	-	-	-	-	-	-	-	44.275
Net Procurement (P-1) ( <i>\$ in Millions</i> )	5,468.386	86.325	497.843	94.790	278.073	372.863	13.838	133.213	3.600	-	-	6,576.068
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	44.275	-	-	-	-	-	-	-	-	-	-	44.275
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>5,512.661</b>	<b>86.325</b>	<b>497.843</b>	<b>94.790</b>	<b>278.073</b>	<b>372.863</b>	<b>13.838</b>	<b>133.213</b>	<b>3.600</b>	-	-	<b>6,620.343</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	72.249	225.392	118.252	94.980	95.003	94.997	138.380	90.009	-	-	-	76.625

**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, OH-58 Kiowa Warrior, 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 will replace 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, safety, insensitive munitions, reliability, weapon integration activities, test sets, engineering changes, facilitization, and production issues. This missile is compatible on all current force UAS and rotary wing platforms.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	383	4,210	998	2,927	3,925	100	1,480	-	-
	Total Obligation Authority	86.325	497.843	94.790	278.073	372.863	13.838	133.213	3.600	-
<b>Total:</b> Secondary Distribution	Quantity	<b>383</b>	<b>4,210</b>	<b>998</b>	<b>2,927</b>	<b>3,925</b>	<b>100</b>	<b>1,480</b>	<b>-</b>	<b>-</b>
	Total Obligation Authority	<b>86.325</b>	<b>497.843</b>	<b>94.790</b>	<b>278.073</b>	<b>372.863</b>	<b>13.838</b>	<b>133.213</b>	<b>3.600</b>	<b>-</b>

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 20: Air-To-Surface Missile System **P-1 Line Item Number / Title:**  
 C70000 / Hellfire Sys Summary

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203802A, 0210109A

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

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)	P-5a, P-21		355	76,301 / 5,512.661	383 / 86.325	4,210 / 497.843	998 / 94.790	2,927 / 278.073	3,925 / 372.863
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>76,301 / 5,512.661</b>	<b>383 / 86.325</b>	<b>4,210 / 497.843</b>	<b>998 / 94.790</b>	<b>2,927 / 278.073</b>	<b>3,925 / 372.863</b>

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

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

**Justification:**  
 FY 2018 Base procurement dollars in the amount of \$94.790 million support the procurement of 998 HELLFIRE II missiles, Production Engineering Support, Project Management Administration and Engineering Services funding to include obsolescence and facilitization.  
  
 FY 2018 OCO procurement dollars in the amount of \$278.073 million supports the procurement of 2,927 HELLFIRE II missiles in order to replace and replenish missiles expended in wartime operations. OCO funding also covers Production Engineering Support, Project Management Administration, Engineering Services and fielding.  
  
 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.  
  
 In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses and providing military support to civil authorities.



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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20	<b>P-1 Line Item Number / Title:</b> C70000 / Hellfire Sys Summary	<b>Item Number / Title [DODIC]:</b> C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)

**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:** 355

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	76,301	383	4,210	998	2,927	3,925
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	5,512.661	86.325	497.843	94.790	278.073	372.863
Less PY Advance Procurement ( <i>\$ in Millions</i> )	44.275	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	5,468.386	86.325	497.843	94.790	278.073	372.863
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	44.275	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>5,512.661</b>	<b>86.325</b>	<b>497.843</b>	<b>94.790</b>	<b>278.073</b>	<b>372.863</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	72.249	225.392	118.252	94.980	95.003	94.997

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

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2016</b>			<b>FY 2017</b>			<b>FY 2018 Base</b>			<b>FY 2018 OCO</b>			<b>FY 2018 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
Flyaway Cost																		
Recurring Cost																		
All-up Rounds <sup>(†)</sup>	73.463	63,396	4,657.235	122.000	383	46.726	101.000	4,210	425.210	81.984	998	81.820	82.002	2,927	240.021	81.998	3,925	321.841
Acceptance Testing	-	-	84.166	-	-	0.136	-	-	1.235	-	-	0.076	-	-	0.556	-	-	0.632
Production Engineering Support	-	-	398.877	-	-	8.461	-	-	39.795	-	-	3.457	-	-	17.370	-	-	20.827
<i>Subtotal: Recurring Cost</i>	-	-	<i>5,140.303</i>	-	-	<i>55.323</i>	-	-	<i>466.240</i>	-	-	<i>85.353</i>	-	-	<i>257.946</i>	-	-	<i>343.301</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>5,140.303</i>	-	-	<i>55.323</i>	-	-	<i>466.240</i>	-	-	<i>85.353</i>	-	-	<i>257.946</i>	-	-	<i>343.301</i>
Support Cost																		
Engineering Services	-	-	186.800	-	-	24.583	-	-	10.438	-	-	2.478	-	-	7.262	-	-	9.740
Project Mgt Admin	-	-	137.321	-	-	5.660	-	-	14.264	-	-	6.527	-	-	9.752	-	-	16.279
Fielding	-	-	48.237	-	-	0.759	-	-	6.901	-	-	0.432	-	-	3.112	-	-	3.544
<i>Subtotal: Support Cost</i>	-	-	<i>372.358</i>	-	-	<i>31.002</i>	-	-	<i>31.603</i>	-	-	<i>9.437</i>	-	-	<i>20.126</i>	-	-	<i>29.563</i>
<b>Gross/Weapon System Cost</b>	<b>72.249</b>	<b>76,301</b>	<b>5,512.661</b>	<b>225.392</b>	<b>383</b>	<b>86.325</b>	<b>118.252</b>	<b>4,210</b>	<b>497.843</b>	<b>94.980</b>	<b>998</b>	<b>94.790</b>	<b>95.003</b>	<b>2,927</b>	<b>278.073</b>	<b>94.997</b>	<b>3,925</b>	<b>372.863</b>

<b>Secondary Distribution</b>		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Army	Quantity	383	4,210	998	2,927	3,925
	Total Obligation Authority	86.325	497.843	94.790	278.073	372.863
<b>Total:</b>	<b>Quantity</b>	<b>383</b>	<b>4,210</b>	<b>998</b>	<b>2,927</b>	<b>3,925</b>

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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>				<b>Date: May 2017</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20		<b>P-1 Line Item Number / Title:</b> C70000 / Hellfire Sys Summary		<b>Item Number / Title [DODIC]:</b> C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :			<b>MDAP/MAIS Code: 355</b>			
<b>Secondary Distribution</b>		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	86.325	497.843	94.790	278.073	372.863

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

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<b>Exhibit P-5a, Procurement History and Planning: FY 2018 Army</b>							<b>Date: May 2017</b>				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20			<b>P-1 Line Item Number / Title:</b> C70000 / Hellfire Sys Summary				<b>Item Number / Title [DODIC]:</b> C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
All-up Rounds <sup>(†)</sup>		2016	HELLFIRE Sys Limited Liability / Orlando	C / FFP	AMCOM, Redstone Arsenal, AL	Feb 2017	Mar 2019	113	175.000	Y		Dec 2013
All-up Rounds <sup>(†)</sup>		2016	HF Sys Limited Liability / Orlando	C / FFP	AMCOM, Redstone Arsenal, AL	Feb 2017	Mar 2019	270	121.000	Y		Dec 2013
All-up Rounds <sup>(†)</sup>		2017	HELLFIRE Sys Limited Liability / Orlando	C / FFP	AMCOM, Redstone Arsenal, AL	Sep 2017	Oct 2019	155	107.000	Y		Dec 2013
All-up Rounds <sup>(†)</sup>		2017	HF Sys Limited Liability / Orlando	C / FFP	AMCOM, Redstone Arsenal, AL	Sep 2017	Oct 2019	4,055	101.000	Y		Dec 2013
All-up Rounds <sup>(†)</sup>		2018	HELLFIRE Sys Limited Liability / Orlando	C / FFP	AMCOM, Redstone Arsenal, AL	Sep 2018	Oct 2020	998	81.980	Y		Dec 2016
All-up Rounds <sup>(†)</sup>		2018	HF Sys Limited Liability / Orlando	C / FFP	AMCOM, Redstone Arsenal, AL	Sep 2018	Oct 2020	2,927	82.000	Y		Dec 2016

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

**Remarks:**  
Firm Fixed Price (FFP)

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. All procurement of Hellfire II AGM-114R missiles are reflected on the P21.

See Exhibit P-5 for Unit Cost. 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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<b>Exhibit P-21, Production Schedule: FY 2018 Army</b>	<b>Date: May 2017</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20	<b>P-1 Line Item Number / Title:</b> C70000 / Hellfire Sys Summary	<b>Item Number / Title [DODIC]:</b> C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)

Cost Elements (Units in Each)						Fiscal Year 2017														Fiscal Year 2018														BALANCE				
OCO#	MFR#	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017														Calendar Year 2018																	
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP								
All-up Rounds																																						
Prior Years Deliveries: 63396																																						
1	2016	ARMY	113	0	113							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113
1	2016	FMS (†)	1,332	0	1,332							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,332
1	2016	AF (†)	5,567	0	5,567							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,567
1	2016	<b>Total</b>	<b>7,012</b>	<b>0</b>	<b>7,012</b>							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>7,012</b>
2	2016	ARMY	270	0	270							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	270
1	2017	ARMY	155	0	155															A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155
1	2017	FMS (†)	1,000	0	1,000															A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000
1	2017	AF (†)	1,613	0	1,613															A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,613
1	2017	<b>Total</b>	<b>2,768</b>	<b>0</b>	<b>2,768</b>															-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>2,768</b>
2	2017	ARMY	4,055	0	4,055															A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,055
1	2018	ARMY	998	0	998																																A -	998
2	2018	ARMY	2,927	0	2,927																															A -	2,927	

OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
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<b>Exhibit P-21, Production Schedule: FY 2018 Army</b>																		<b>Date: May 2017</b>											
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20												<b>P-1 Line Item Number / Title:</b> C70000 / Hellfire Sys Summary										<b>Item Number / Title [DODIC]:</b> C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)							

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2019														Fiscal Year 2020														BALANCE		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019														Calendar Year 2020														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
All-up Rounds																																			
Prior Years Deliveries: 63396																																			
	1	2016	ARMY	113	0	113	-	-	-	-	-	10	10	10	10	10	9	9	9	9	9	9	-	-	-	-	-	-	-	0					
	1	2016	FMS (†)	1,332	0	1,332	-	-	-	-	-	111	111	111	111	111	111	-	-	-	-	-	-	-	-	-	-	-	-	555					
	1	2016	AF (†)	5,567	0	5,567	-	-	-	-	-	463	464	464	464	464	464	464	464	464	464	464	464	-	-	-	-	-	-	0					
	<b>1</b>	<b>2016</b>	<b>Total</b>	<b>7,012</b>	<b>0</b>	<b>7,012</b>	-	-	-	-	-	<b>584</b>	<b>585</b>	<b>585</b>	<b>585</b>	<b>585</b>	<b>584</b>	<b>584</b>	<b>473</b>	<b>473</b>	<b>473</b>	<b>473</b>	<b>473</b>	-	-	-	-	-	-	<b>555</b>					
	2	2016	ARMY	270	0	270	-	-	-	-	-	23	23	23	23	23	23	22	22	22	22	22							0						
	1	2017	ARMY	155	0	155	-	-	-	-	-	-	-	-	-	-	-	13	13	13	13	13	13	13	13	13	13	13	12	0					
	1	2017	FMS (†)	1,000	0	1,000	-	-	-	-	-	-	-	-	-	-	-	83	83	83	83	83	83	83	83	83	84	84	84	84	0				
	1	2017	AF (†)	1,613	0	1,613	-	-	-	-	-	-	-	-	-	-	-	135	135	135	135	135	135	134	134	134	134	134	134	134	0				
	<b>1</b>	<b>2017</b>	<b>Total</b>	<b>2,768</b>	<b>0</b>	<b>2,768</b>	-	-	-	-	-	-	-	-	-	-	-	<b>231</b>	<b>231</b>	<b>231</b>	<b>231</b>	<b>231</b>	<b>231</b>	<b>230</b>	<b>230</b>	<b>230</b>	<b>231</b>	<b>231</b>	<b>231</b>	<b>230</b>	<b>0</b>				
	2	2017	ARMY	4,055	0	4,055	-	-	-	-	-	-	-	-	-	-	-	338	338	338	338	338	338	338	338	338	338	338	337	0					
	1	2018	ARMY	998	0	998	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	998					
	2	2018	ARMY	2,927	0	2,927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,927					
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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<b>Exhibit P-21, Production Schedule: FY 2018 Army</b>															<b>Date: May 2017</b>														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20										<b>P-1 Line Item Number / Title:</b> C70000 / Hellfire Sys Summary										<b>Item Number / Title [DODIC]:</b> C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)									

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2021													Fiscal Year 2022													BALANCE		
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
All-up Rounds																																	
Prior Years Deliveries: 63396																																	
1	2016	ARMY		113	113	0	-	-	-	-	-																						0
1	2016	FMS (+)		1,332	777	555	111	111	111	111	111																						0
1	2016	AF (+)		5,567	5,567	0	-	-	-	-	-																						0
<b>1</b>	<b>2016</b>	<b>Total</b>		<b>7,012</b>	<b>6,457</b>	<b>555</b>	<b>111</b>	<b>111</b>	<b>111</b>	<b>111</b>	<b>111</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
2	2016	ARMY		270	270	0																											0
1	2017	ARMY		155	155	0																											0
1	2017	FMS (+)		1,000	1,000	0																											0
1	2017	AF (+)		1,613	1,613	0																											0
<b>1</b>	<b>2017</b>	<b>Total</b>		<b>2,768</b>	<b>2,768</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>	
2	2017	ARMY		4,055	4,055	0																											0
1	2018	ARMY		998	0	998	84	84	83	83	83	83	83	83	83	83	83															0	
2	2018	ARMY		2,927	0	2,927	244	244	244	244	244	244	244	244	244	244	243															0	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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<b>Exhibit P-21, Production Schedule: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20		<b>P-1 Line Item Number / Title:</b> C70000 / Hellfire Sys Summary
		<b>Item Number / Title [DODIC]:</b> C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	HELLFIRE Sys Limited Liability - Orlando	1,200	3,600	8,500	5	12	24	36	5	12	24	36
2	HF Sys Limited Liability - Orlando	1,200	3,600	8,500	5	12	24	36	5	12	24	36

**Remarks:**  
Yearly Minimum Sustainment Rate (MSR) = 1200 missiles. Yearly Economical Production Rate (1-8-5) = 3600 missiles. Yearly Maximum Production Rate (MPR) = 8500 missiles.

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

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

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**Exhibit P-40, Budget Line Item Justification: FY 2018 Army** **Date: May 2017**

**Appropriation / Budget Activity / Budget Sub Activity:**  
2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 20: Air-To-Surface Missile System

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

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0605450A

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

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	324	824	-	824	958	800	1,280	838	15,279	20,303
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	0.000	92.489	215.532	-	215.532	253.118	211.806	292.770	186.931	3,287.665	4,540.311
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	0.000	27.738	37.100	-	37.100	-	-	-	-	-	64.838
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	0.000	64.751	178.432	-	178.432	253.118	211.806	292.770	186.931	3,287.665	4,475.473
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	27.738	37.100	-	-	-	-	-	-	-	-	64.838
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	-	<b>27.738</b>	<b>101.851</b>	<b>178.432</b>	-	<b>178.432</b>	<b>253.118</b>	<b>211.806</b>	<b>292.770</b>	<b>186.931</b>	<b>3,287.665</b>	<b>4,540.311</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	-	-	285.460	261.568	-	261.568	264.215	264.758	228.727	223.068	215.175	223.628

**Description:**

The Joint Air-to-Ground Missile (JAGM) program is an Army led, Acquisition Category (ACAT) 1C Major Defense Acquisition Program (MDAP) with joint interest with the U.S. Marine Corps (USMC) and U.S. Navy. 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.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	324	824	-	824	958	800	1,280	838
Total Obligation Authority	27.738	101.851	178.432	-	178.432	253.118	211.806	292.770	186.931
<b>Total: Secondary Distribution</b>									
Quantity	-	<b>324</b>	<b>824</b>	-	<b>824</b>	<b>958</b>	<b>800</b>	<b>1,280</b>	<b>838</b>
Total Obligation Authority	<b>27.738</b>	<b>101.851</b>	<b>178.432</b>	-	<b>178.432</b>	<b>253.118</b>	<b>211.806</b>	<b>292.770</b>	<b>186.931</b>



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 20: Air-To-Surface Missile System **P-1 Line Item Number / Title:**  
 C70302 / Joint Air-to-Ground MSLS (JAGM)

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0605450A

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

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	C70302 / Joint Air-to-Ground MSLS (JAGM)	P-5a, P-21		355	- / -	- / 0.000	324 / 92.489	824 / 215.532	- / -	824 / 215.532
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / -</b>	<b>- / 0.000</b>	<b>324 / 92.489</b>	<b>824 / 215.532</b>	<b>- / -</b>	<b>824 / 215.532</b>

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

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

**Justification:**  
 FY 2018 Base procurement dollars in the amount of \$215.532 million supports the procurement of 824 missiles. 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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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20	<b>P-1 Line Item Number / Title:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)	<b>Item Number / Title [DODIC]:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b> 355
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	324	824	-	824
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	0.000	92.489	215.532	-	215.532
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	0.000	27.738	37.100	-	37.100
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	0.000	64.751	178.432	-	178.432
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	27.738	37.100	-	-	-
<b>Total Obligation Authority <i>(\$ in Millions)</i></b>	-	<b>27.738</b>	<b>101.851</b>	<b>178.432</b>	-	<b>178.432</b>

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

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	285.460	261.568	-	261.568

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
All Up Rounds (AUR) <sup>(†)</sup>	-	-	-	-	-	-	149.451	324	48.422	174.506	824	143.793	-	-	-	174.506	824	143.793
Guidance Section Long Lead Items	-	-	-	-	-	-	-	-	24.800	-	-	-	-	-	-	-	-	-
HELLFIRE Backend Long Lead Items	-	-	-	-	-	-	-	-	2.938	-	-	37.100	-	-	-	-	-	37.100
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	76.160	-	-	180.893	-	-	-	-	-	180.893
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	76.160	-	-	180.893	-	-	-	-	-	180.893
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	9.036	-	-	15.430	-	-	-	-	-	15.430
Contractor Management	-	-	-	-	-	-	-	-	-	-	-	3.209	-	-	-	-	-	3.209
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	9.036	-	-	18.639	-	-	-	-	-	18.639
Support - System Engineering Cost																		
System Engineering	-	-	-	-	-	-	-	-	7.293	-	-	16.000	-	-	-	-	-	16.000
<i>Subtotal: Support - System Engineering Cost</i>	-	-	-	-	-	-	-	-	7.293	-	-	16.000	-	-	-	-	-	16.000
<b>Gross/Weapon System Cost</b>	-	-	-	-	-	0.000	285.460	324	92.489	261.568	824	215.532	-	-	-	261.568	824	215.532

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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20	<b>P-1 Line Item Number / Title:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)	<b>Item Number / Title [DODIC]:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)

**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:** 355

<b>Secondary Distribution</b>		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Army	Quantity	-	324	824	-	824
	Total Obligation Authority	27.738	101.851	178.432	-	178.432
<b>Total:</b>	<b>Quantity</b>	-	324	824	-	824
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	27.738	101.851	178.432	-	178.432

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

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning: FY 2018 Army</b>							<b>Date: May 2017</b>				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20			<b>P-1 Line Item Number / Title:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)				<b>Item Number / Title [DODIC]:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
All Up Rounds (AUR) <sup>(†)</sup>		2017	Lockheed Martin / Orlando	C / FPIF	Redstone Arsenal, AL	May 2018	Jul 2018	324	149.451	Y		Feb 2015
All Up Rounds (AUR) <sup>(†)</sup>		2018	Lockheed Martin / Orlando	C / FPIF	Redstone Arsenal, AL	May 2018	Apr 2019	824	174.510	Y		Feb 2015

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

**Remarks:**

FY 2017:

- EMD LRIP 1 Option Award date changed from September 2017 to May 2018 due to the delay of JAGM Milestone C from 4QFY 2017 to 3QFY 2018 as a result of hardware delays.

FY 2018:

- EMD LRIP 2 Option Award procures 824 FY 2018 missiles. The initial 496 LRIP 2 missiles will be procured with the support of FY 2017 advance procurement (AP) for long lead items. The remaining 328 LRIP 2 missiles will be procured without the use of AP for long lead items.



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<b>Exhibit P-21, Production Schedule:</b> FY 2018 Army															<b>Date:</b> May 2017														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20										<b>P-1 Line Item Number / Title:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)										<b>Item Number / Title [DODIC]:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
All Up Rounds (AUR)																															
1		2017	ARMY	324	324	0																							0		
1		2018	ARMY	824	300	524	-	-	46	50	50	50	28	28	28	28	27	27	27	27	27	27	27						0		
1		2018	NAVY <sup>(*)</sup>	104	0	104	50	50	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-						0		
1		2018	<b>Total</b>	<b>928</b>	<b>300</b>	<b>628</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>28</b>	<b>28</b>	<b>28</b>	<b>28</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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<b>Exhibit P-21, Production Schedule:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20		<b>P-1 Line Item Number / Title:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)
		<b>Item Number / Title [DODIC]:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Martin - Orlando	220	600	600	5	12	24	36	5	12	24	36

**Remarks:**  
 In order to eliminate the need for advance procurement beyond LRIP 2, FY 2018 missile procurement (824 All Up Rounds) will be procured on two separate contact actions, both to be awarded in 3rd Quarter, FY 2018. The LRIP 2 Option Award procures 824 FY 2018 missiles. The initial 496 LRIP 2 missiles will be procured with the support of FY 2017 advance procurement (AP) for long lead items. The remaining 328 LRIP 2 missiles will be procured without the use of AP for long lead items. The LRIP 2 contract actions will be awarded as contract modifications to the existing contract, so the delivery period will be 24 months instead of 12. This will be a one-time deviation from the 12-month funded delivery period, defined as "a 12-month period that begins when the contractor delivers the first item of a fiscal year procurement" to eliminate the need for AP. Eliminating AP allows the program to: transition to a regular procurement cycle, mitigate the risk of a production gap between LRIP and FRP, aligns the Army and Navy production plans, and supports the combining of the HELLFIRE and JAGM procurements into a single contract by FY 2022.

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.  
**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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<b>Exhibit P-40, Advance Procurement Budget Line Item Justification:</b> FY 2018 Army							<b>Date:</b> May 2017					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 20: Air-To-Surface Missile System							<b>P-1 Line Item Number / Title:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)					
<b>Program Elements for Code B Items:</b> N/A							<b>Other Related Program Elements:</b> 0605450A					
<b>Line Item MDAP/MAIS Code:</b> N/A												

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	27.738	37.100	-	-	-	-	-	-	-	-	64.838
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	27.738	37.100	-	-	-	-	-	-	-	-	64.838
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>27.738</b>	<b>37.100</b>	-	-	-	-	-	-	-	-	<b>64.838</b>

**Description:**

The Joint Air-to-Ground Missile (JAGM) program is an Army led, Acquisition Category (ACAT) 1C Major Defense Acquisition Program (MDAP) with joint interest with the U.S. Marine Corps (USMC) and U.S. Navy. 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.



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**Exhibit P-40, Advance Procurement Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 20: Air-To-Surface Missile System	<b>P-1 Line Item Number / Title:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)
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<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0605450A
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**Line Item MDAP/MAIS Code:** N/A

Exhibits Schedule				Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-10	C70302 / Joint Air-to-Ground MSLS (JAGM)			- / -	- / 27.738	324 / 37.100	824 / -	- / -	824 / -
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>			- / -	- / 27.738	<b>324 / 37.100</b>	<b>824 / -</b>	- / -	<b>824 / -</b>

\*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:**  
 The LRIP 2 Option Award procures 824 FY 2018 missiles. The initial 496 LRIP 2 missiles will be procured with the support of FY 2017 advance procurement (AP) for long lead items. The remaining 328 LRIP 2 missiles will be procured without the use of AP for long lead items.

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<b>Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification):</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20	<b>P-1 Line Item Number / Title:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)	<b>P-5 Number / Title:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)

**MDAP/MAIS Code:** 355

<b>First System (2018) Award Date:</b> April 2016	<b>First System (2018) Completion Date:</b> March 2018	<b>Interval Between Systems:</b> 0 Months
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<b>Joint Air-to-Ground MSLS (JAGM)</b>	<b>Production Leadtime (Months)</b>	<b>Prior Years (Each)</b>	<b>FY 2016 (Each)</b>	<b>FY 2017 (Each)</b>	<b>FY 2018 (Each)</b>
Quantity		-	-	324	824

<b>Cost Elements</b>	<b>When Required (Months)</b>	<b>Prior Years (\$ M)</b>	<b>FY 2016 (\$ M)</b>	<b>FY 2017 (\$ M)</b>	<b>FY 2018 (\$ M)</b>
<b>Other</b>					
Guidance Section LL Items (LRIP 1)	23	-	24.800	0.000	-
HELLFIRE Backend LL Items (LRIP 1)	23	-	2.938	0.000	-
Guidance Section LL Items (LRIP 2)	23	-	-	0.000	-
HELLFIRE Backend LL Items (LRIP 2)	23	-	-	37.100	-
<i>Total: Other</i>		-	<i>27.738</i>	<i>37.100</i>	-
<b>Total Advance Procurement/Obligation Authority</b>		-	<b>27.738</b>	<b>37.100</b>	-

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<b>Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification):</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 20	<b>P-1 Line Item Number / Title:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)	<b>P-5 Number / Title:</b> C70302 / Joint Air-to-Ground MSLS (JAGM)

Cost Elements	QPA (Each)	FY 2018					Total Cost Request (\$ M)
		Production Leadtime (Months)	Unit Cost (\$ K)	Contract Forecast Date	2018 Qty (Each)	For FY	
<b>Other</b>							
Guidance Section LL Items (LRIP 1)	-						-
HELLFIRE Backend LL Items (LRIP 1)	-						-
Guidance Section LL Items (LRIP 2)	-						-
HELLFIRE Backend LL Items (LRIP 2)	-						-
<i>Total: Other</i>							-
<b>Total Advance Procurement/Obligation Authority</b>							-

**Description:**  
No Advance Procurement is required beyond the FY 2017. FY 2017 funding supports LRIP 2 procurement in FY 2018.

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys	<b>P-1 Line Item Number / Title:</b> CC0007 / Javelin (AAWS-M) System Summary
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0604611A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	27,954	850	983	525	47	572	450	616	486	593	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	4,486.050	168.163	193.275	110.123	8.112	118.235	99.237	106.826	119.463	152.684	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	100.622	-	-	-	-	-	-	-	-	-	Continuing	Continuing
Net Procurement (P-1) ( <i>\$ in Millions</i> )	4,385.428	168.163	193.275	110.123	8.112	118.235	99.237	106.826	119.463	152.684	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	100.622	-	-	-	-	-	-	-	-	-	Continuing	Continuing
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>4,486.050</b>	<b>168.163</b>	<b>193.275</b>	<b>110.123</b>	<b>8.112</b>	<b>118.235</b>	<b>99.237</b>	<b>106.826</b>	<b>119.463</b>	<b>152.684</b>	<b>Continuing</b>	<b>Continuing</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	160.480	197.839	196.618	209.758	172.596	206.705	220.527	173.419	245.809	257.477	Continuing	Continuing

**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.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	850	983	525	47	572	450	616	486	593
Total Obligation Authority	168.163	193.275	110.123	8.112	118.235	99.237	106.826	89.463	107.684
<b>Total:</b>	<b>850</b>	<b>983</b>	<b>525</b>	<b>47</b>	<b>572</b>	<b>450</b>	<b>616</b>	<b>486</b>	<b>593</b>
<b>Secondary Distribution</b>	<b>168.163</b>	<b>193.275</b>	<b>110.123</b>	<b>8.112</b>	<b>118.235</b>	<b>99.237</b>	<b>106.826</b>	<b>89.463</b>	<b>107.684</b>

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/  
Assault Missile Sys **P-1 Line Item Number / Title:**  
CC0007 / Javelin (AAWS-M) System Summary

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604611A

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

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	H06102 / JAVELIN (AAWS-M)	P-5a, P-21		280	27,954 / 4,486.050	850 / 168.163	983 / 193.275	525 / 110.123	47 / 8.112	572 / 118.235
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>27,954 / 4,486.050</b>	<b>850 / 168.163</b>	<b>983 / 193.275</b>	<b>525 / 110.123</b>	<b>47 / 8.112</b>	<b>572 / 118.235</b>

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

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

**Justification:**

FY 2018 Base procurement dollars in the amount of \$110.123 million support the procurement of 525 Missiles.

FY 2018 OCO procurement dollars in the amount of \$8.112 million to support the COCOM requirement for unit equipment sets to deter potential adversaries and support the European Reassurance Initiative. The procurement includes 47 missiles.

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

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

The 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 implement a cost reduction Engineering Change Proposal (ECP) for G-Model missile.

Beginning in FY20, G-Model missiles will be produced.

Other procurement funding (SSN H06103 Javelin Lightweight Command Launch Unit (CLU)) will begin in FY21 for procurement of Lightweight CLUs for the Javelin program.

- FY 2021 Base procurement dollars (SSN H06103) in the amount of \$30.000M support the procurement of 59 Lightweight CLUs.
- FY 2022 Base procurement dollars (SSN H06103) in the amount of \$45.000M support the procurement of 88 Lightweight CLUs.

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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>														<b>Date: May 2017</b>				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30							<b>P-1 Line Item Number / Title:</b> CC0007 / Javelin (AAWS-M) System Summary							<b>Item Number / Title [DODIC]:</b> H06102 / JAVELIN (AAWS-M)				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :										<b>MDAP/MAIS Code: 280</b>								
<b>Resource Summary</b>				<b>Prior Years</b>		<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 Total</b>				
Procurement Quantity (Units in Each)				27,954		850		983		525		47		572				
Gross/Weapon System Cost (\$ in Millions)				4,486.050		168.163		193.275		110.123		8.112		118.235				
Less PY Advance Procurement (\$ in Millions)				100.622		-		-		-		-		-				
Net Procurement (P-1) (\$ in Millions)				4,385.428		168.163		193.275		110.123		8.112		118.235				
Plus CY Advance Procurement (\$ in Millions)				100.622		-		-		-		-		-				
<b>Total Obligation Authority (\$ in Millions)</b>				<b>4,486.050</b>		<b>168.163</b>		<b>193.275</b>		<b>110.123</b>		<b>8.112</b>		<b>118.235</b>				
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)				-		-		-		-		-		-				
Gross/Weapon System Unit Cost (\$ in Thousands)				160.480		197.839		196.618		209.758		172.596		206.705				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2016</b>			<b>FY 2017</b>			<b>FY 2018 Base</b>			<b>FY 2018 OCO</b>			<b>FY 2018 Total</b>		
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
Flyaway Cost																		
Recurring Cost																		
All Up Round <sup>(1)</sup>	97.421	27,954	2,723.307	175.596	850	149.257	176.373	983	173.375	170.669	525	89.601	170.660	47	8.021	170.668	572	97.622
Engineering Services	-	-	142.450	-	-	6.653	-	-	7.377	-	-	7.732	-	-	-	-	-	7.732
Engineering Change Orders	-	-	11.315	-	-	0.059	-	-	0.069	-	-	0.090	-	-	0.007	-	-	0.097
Acceptance Testing	-	-	56.214	-	-	0.964	-	-	0.983	-	-	1.002	-	-	0.060	-	-	1.062
Production Engineering	-	-	104.105	-	-	4.469	-	-	4.558	-	-	4.649	-	-	-	-	-	4.649
Publications/Technical Data	-	-	2.596	-	-	0.060	-	-	0.075	-	-	0.075	-	-	-	-	-	0.075
<i>Subtotal: Recurring Cost</i>	-	-	<i>3,039.987</i>	-	-	<i>161.462</i>	-	-	<i>186.437</i>	-	-	<i>103.149</i>	-	-	<i>8.088</i>	-	-	<i>111.237</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>3,039.987</i>	-	-	<i>161.462</i>	-	-	<i>186.437</i>	-	-	<i>103.149</i>	-	-	<i>8.088</i>	-	-	<i>111.237</i>
Support - Program Management Cost																		
Government Management	-	-	1,425.823	-	-	6.701	-	-	6.838	-	-	6.974	-	-	0.024	-	-	6.998
<i>Subtotal: Support - Program Management Cost</i>	-	-	<i>1,425.823</i>	-	-	<i>6.701</i>	-	-	<i>6.838</i>	-	-	<i>6.974</i>	-	-	<i>0.024</i>	-	-	<i>6.998</i>
Support Cost																		
Fielding	-	-	20.240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	<i>20.240</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	<b>160.480</b>	<b>27,954</b>	<b>4,486.050</b>	<b>197.839</b>	<b>850</b>	<b>168.163</b>	<b>196.618</b>	<b>983</b>	<b>193.275</b>	<b>209.758</b>	<b>525</b>	<b>110.123</b>	<b>172.596</b>	<b>47</b>	<b>8.112</b>	<b>206.705</b>	<b>572</b>	<b>118.235</b>

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**Exhibit P-5, Cost Analysis: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30	<b>P-1 Line Item Number / Title:</b> CC0007 / Javelin (AAWS-M) System Summary	<b>Item Number / Title [DODIC]:</b> H06102 / JAVELIN (AAWS-M)
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:** 280

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	850	983	525	47	572
	Total Obligation Authority	168.163	193.275	110.123	8.112	118.235
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>850</b>	<b>983</b>	<b>525</b>	<b>47</b>	<b>572</b>
	<b>Total Obligation Authority</b>	<b>168.163</b>	<b>193.275</b>	<b>110.123</b>	<b>8.112</b>	<b>118.235</b>

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

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**Exhibit P-5a, Procurement History and Planning: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30	<b>P-1 Line Item Number / Title:</b> CC0007 / Javelin (AAWS-M) System Summary	<b>Item Number / Title [DODIC]:</b> H06102 / JAVELIN (AAWS-M)
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
All Up Round <sup>(†)</sup>		2016	JJV All Up Round / Tucson AZ Orlando FL	SS / FFP	AMCOM, Redstone Arsenal, AL	Apr 2016	Feb 2018	850	175.600	Y		Jul 2012
All Up Round <sup>(†)</sup>		2017	JJV All Up Round / Tucson AZ Orlando FL	SS / FFP	AMCOM, Redstone Arsenal, AL	Jun 2017	Apr 2019	983	176.370	Y		Feb 2016
All Up Round <sup>(†)</sup>		2018	JJV All Up Round / Tucson AZ Orlando FL	SS / FFP	AMCOM, Redstone Arsenal, AL	Apr 2018	Feb 2020	572	170.670	Y		Mar 2017

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

**Remarks:**

Javelin Joint Venture (JJV) includes Raytheon in Tucson, AZ and Lockheed Martin in Orlando, FL.  
 Sole Source (SS)  
 Firm Fixed Price (FFP)  
 Aviation and Missile Command (AMCOM)

Missile unit prices are affected by combining Army procurement quantities with other U.S. services and foreign military sales quantities. Estimated unit price is based on combined U.S. Army, other services and FMS procurements of at least 850 missiles per year.



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**Exhibit P-21, Production Schedule: FY 2018 Army** **Date: May 2017**

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A / 02 / 30 **P-1 Line Item Number / Title:** CC0007 / Javelin (AAWS-M) System Summary **Item Number / Title [DODIC]:** H06102 / JAVELIN (AAWS-M)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016														Fiscal Year 2017														BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
All Up Round																																			
Prior Years Deliveries: 27954																																			
1	2016	ARMY	850	0	850																														850
1	2016	MC (†)	327	0	327																														327
<b>1</b>	<b>2016</b>	<b>Total</b>	<b>1,177</b>	<b>0</b>	<b>1,177</b>																														<b>1,177</b>
1	2017	ARMY	983	0	983																														983
1	2017	FMS (†)	443	0	443																														443
1	2017	MC (†)	9	0	9																														9
<b>1</b>	<b>2017</b>	<b>Total</b>	<b>1,435</b>	<b>0</b>	<b>1,435</b>																														<b>1,435</b>
1	2018	ARMY	572	0	572																														572
1	2018	FMS (†)	276	0	276																														276
1	2018	MC (†)	9	0	9																														9
<b>1</b>	<b>2018</b>	<b>Total</b>	<b>857</b>	<b>0</b>	<b>857</b>																														<b>857</b>

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**Exhibit P-21, Production Schedule: FY 2018 Army** **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A / 02 / 30 **P-1 Line Item Number / Title:** CC0007 / Javelin (AAWS-M) System Summary **Item Number / Title [DODIC]:** H06102 / JAVELIN (AAWS-M)

Cost Elements <i>(Units in Each)</i>				Fiscal Year 2018														Fiscal Year 2019												BALANCE			
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018														Calendar Year 2019												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P		
All Up Round																																	
Prior Years Deliveries: 27954																																	
1		2016	ARMY	850	0	850	-	-	-	-	85	85	85	85	85	85	85	85	85	85	-	-	-	-					0				
1		2016	MC (†)	327	0	327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82	82	82	81					0				
<b>1</b>		<b>2016</b>	<b>Total</b>	<b>1,177</b>	<b>0</b>	<b>1,177</b>	-	-	-	-	<b>85</b>	<b>85</b>	<b>85</b>	<b>85</b>	<b>85</b>	<b>85</b>	<b>85</b>	<b>85</b>	<b>85</b>	<b>82</b>	<b>82</b>	<b>82</b>	<b>81</b>	-	-	-	-	<b>0</b>					
1		2017	ARMY	983	0	983	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	145	145	145	145	113				
1		2017	FMS (†)	443	0	443	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	443					
1		2017	MC (†)	9	0	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9					
<b>1</b>		<b>2017</b>	<b>Total</b>	<b>1,435</b>	<b>0</b>	<b>1,435</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>145</b>	<b>145</b>	<b>145</b>	<b>145</b>	<b>565</b>				
1		2018	ARMY	572	0	572																						572					
1		2018	FMS (†)	276	0	276																						276					
1		2018	MC (†)	9	0	9																						9					
<b>1</b>		<b>2018</b>	<b>Total</b>	<b>857</b>	<b>0</b>	<b>857</b>																						<b>857</b>					
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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**Exhibit P-21, Production Schedule: FY 2018 Army** **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A / 02 / 30 **P-1 Line Item Number / Title:** CC0007 / Javelin (AAWS-M) System Summary **Item Number / Title [DODIC]:** H06102 / JAVELIN (AAWS-M)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020													Fiscal Year 2021													BALANCE	
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020													Calendar Year 2021													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
All Up Round																																	
Prior Years Deliveries: 27954																																	
1	2016	ARMY	850	850	0																									0			
1	2016	MC (†)	327	327	0																									0			
<b>1</b>	<b>2016</b>	<b>Total</b>	<b>1,177</b>	<b>1,177</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>			
1	2017	ARMY	983	870	113	113	-	-	-																					0			
1	2017	FMS (†)	443	0	443	23	143	143	134																					0			
1	2017	MC (†)	9	0	9	9	-	-	-																					0			
<b>1</b>	<b>2017</b>	<b>Total</b>	<b>1,435</b>	<b>870</b>	<b>565</b>	<b>145</b>	<b>143</b>	<b>143</b>	<b>134</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>			
1	2018	ARMY	572	0	572	-	-	-	-	72	72	72	72	71	71	71	71	-	-	-	-									0			
1	2018	FMS (†)	276	0	276	-	-	-	-	-	-	-	-	-	-	-	62	72	71	71										0			
1	2018	MC (†)	9	0	9	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-										0			
<b>1</b>	<b>2018</b>	<b>Total</b>	<b>857</b>	<b>0</b>	<b>857</b>	-	-	-	-	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>71</b>	<b>71</b>	<b>71</b>	<b>71</b>	<b>71</b>	<b>72</b>	<b>71</b>	<b>71</b>	-	-	-	-	-	-	-	-	<b>0</b>			
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				

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<b>Exhibit P-21, Production Schedule:</b> FY 2018 Army	<b>Date:</b> May 2017
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<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30	<b>P-1 Line Item Number / Title:</b> CC0007 / Javelin (AAWS-M) System Summary	<b>Item Number / Title [DODIC]:</b> H06102 / JAVELIN (AAWS-M)
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	JJV All Up Round - Tucson AZ Orlando FL	850	3,960	6,480	11	3	23	26	6	3	29	32

**Remarks:**  
Estimated unit price for FY15 and out are based on combined U.S. Army, other services and FMS procurements of at least 850 missiles per year.FY17-18 Army quantity includes Base and OCO missiles.

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

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

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys	<b>P-1 Line Item Number / Title:</b> C59300 / TOW 2 System Summary
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	167,547	1,704	1,948	1,156	49	1,205	1,159	1,156	1,443	1,296	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	3,121.932	107.509	181.477	105.800	3.907	109.707	106.905	109.502	136.173	125.161	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	157.223	19.984	0.000	19.949	-	19.949	19.949	19.949	10.500	-	Continuing	Continuing
Net Procurement (P-1) ( <i>\$ in Millions</i> )	2,964.709	87.525	181.477	85.851	3.907	89.758	86.956	89.553	125.673	125.161	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	177.207	-	19.949	19.949	-	19.949	19.949	10.500	-	-	Continuing	Continuing
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>3,141.916</b>	<b>87.525</b>	<b>201.426</b>	<b>105.800</b>	<b>3.907</b>	<b>109.707</b>	<b>106.905</b>	<b>100.053</b>	<b>125.673</b>	<b>125.161</b>	<b>Continuing</b>	<b>Continuing</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	18.633	63.092	93.161	91.522	79.735	91.043	92.239	94.725	94.368	96.575	Continuing	Continuing

**Description:**

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

TOW missiles are launched from a variety of combat systems in the active Army and Army National Guard including the Improved Target Acquisition System (ITAS), all infantry and cavalry variants of Bradley Fighting Vehicle Systems (BFVS), the Stryker Anti-Tank Guided Missile (ATGM) Light Armored Vehicle (LAV), and the M220A2 TOW 2 launcher. The USMC employs the TOW missile from its ITAS launchers, ATGM, and AH-1W Cobra helicopters. The TOW missile provides the warfighter with a highly lethal, cost effective, interoperable, multi-purpose weapon.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
	Quantity	1,704	1,948	1,156	49	1,205	1,159	1,156	1,443
	Total Obligation Authority	87.525	201.426	105.800	3.907	109.707	106.905	100.053	125.673
<b>Total:</b>	<b>Quantity</b>	<b>1,704</b>	<b>1,948</b>	<b>1,156</b>	<b>49</b>	<b>1,205</b>	<b>1,159</b>	<b>1,156</b>	<b>1,443</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>87.525</b>	<b>201.426</b>	<b>105.800</b>	<b>3.907</b>	<b>109.707</b>	<b>106.905</b>	<b>100.053</b>	<b>125.673</b>

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys **P-1 Line Item Number / Title:** C59300 / TOW 2 System Summary

**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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	C59403 / TOW Family of Missiles	P-5a, P-21			167,547 / 3,121.932	1,704 / 107.509	1,948 / 181.477	1,156 / 105.800	49 / 3.907	1,205 / 109.707
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>167,547 / 3,121.932</b>	<b>1,704 / 107.509</b>	<b>1,948 / 181.477</b>	<b>1,156 / 105.800</b>	<b>49 / 3.907</b>	<b>1,205 / 109.707</b>

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

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

**Justification:**

FY 2018 Base procurement dollars in the amount of \$105.8 million supports the second year of a five-year (FY17-21) multi-year contract.

FY 2018 OCO includes \$3.907 million to procure 49 missiles to support COCOM requirement for unit equipment sets to deter potential adversaries and support the European Reassurance Initiative.

In accordance with Section 1815 of the FY08 National Defense Authorization Act, 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.

**NOTES:**

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.

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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30		<b>P-1 Line Item Number / Title:</b> C59300 / TOW 2 System Summary
		<b>Item Number / Title [DODIC]:</b> C59403 / TOW Family of Missiles

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	167,547	1,704	1,948	1,156	49	1,205
Gross/Weapon System Cost (\$ in Millions)	3,121.932	107.509	181.477	105.800	3.907	109.707
Less PY Advance Procurement (\$ in Millions)	157.223	19.984	0.000	19.949	-	19.949
Net Procurement (P-1) (\$ in Millions)	2,964.709	87.525	181.477	85.851	3.907	89.758
Plus CY Advance Procurement (\$ in Millions)	177.207	-	19.949	19.949	-	19.949
<b>Total Obligation Authority (\$ in Millions)</b>	<b>3,141.916</b>	<b>87.525</b>	<b>201.426</b>	<b>105.800</b>	<b>3.907</b>	<b>109.707</b>

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	18.633	63.092	93.161	91.522	79.735	91.043

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Missile Contract <sup>(†)</sup>	18.269	167,547	3,060.916	67.698	1,704	115.357	72.981	1,948	142.167	79.966	1,156	92.441	79.735	49	3.907	79.957	1,205	96.348
Less: Prior Year Adv Proc	-	-	-157.223	-	-	-19.984	-	-	-	-	-	-19.949	-	-	-	-	-	-19.949
PLUS P-1 CY Adv. Proc.	-	-	177.207	-	-	-	-	-	19.949	-	-	19.949	-	-	-	-	-	19.949
<i>Subtotal: Recurring Cost</i>	-	-	<i>3,080.900</i>	-	-	<i>95.373</i>	-	-	<i>162.116</i>	-	-	<i>92.441</i>	-	-	<i>3.907</i>	-	-	<i>96.348</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>3,080.900</i>	-	-	<i>95.373</i>	-	-	<i>162.116</i>	-	-	<i>92.441</i>	-	-	<i>3.907</i>	-	-	<i>96.348</i>
Support Cost																		
Engineering Services	-	-	14.867	-	-	2.393	-	-	7.037	-	-	2.301	-	-	-	-	-	2.301
Project Mgt Admin	-	-	22.726	-	-	8.219	-	-	7.942	-	-	8.130	-	-	-	-	-	8.130
Acceptance Testing	-	-	3.439	-	-	1.524	-	-	4.382	-	-	2.928	-	-	-	-	-	2.928
<i>Subtotal: Support Cost</i>	-	-	<i>41.032</i>	-	-	<i>12.136</i>	-	-	<i>19.361</i>	-	-	<i>13.359</i>	-	-	-	-	-	<i>13.359</i>
<b>Gross/Weapon System Cost</b>	<b>18.633</b>	<b>167,547</b>	<b>3,121.932</b>	<b>63.092</b>	<b>1,704</b>	<b>107.509</b>	<b>93.161</b>	<b>1,948</b>	<b>181.477</b>	<b>91.522</b>	<b>1,156</b>	<b>105.800</b>	<b>79.735</b>	<b>49</b>	<b>3.907</b>	<b>91.043</b>	<b>1,205</b>	<b>109.707</b>

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	1,704	1,948	1,156	49	1,205
	Total Obligation Authority	87.525	201.426	105.800	3.907	109.707
<b>Total:</b>	<b>Quantity</b>	<b>1,704</b>	<b>1,948</b>	<b>1,156</b>	<b>49</b>	<b>1,205</b>

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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>				<b>Date: May 2017</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30		<b>P-1 Line Item Number / Title:</b> C59300 / TOW 2 System Summary		<b>Item Number / Title [DODIC]:</b> C59403 / TOW Family of Missiles		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :			<b>MDAP/MAIS Code:</b>			
<b>Secondary Distribution</b>		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	87.525	201.426	105.800	3.907	109.707

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



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**Exhibit P-5a, Procurement History and Planning: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30	<b>P-1 Line Item Number / Title:</b> C59300 / TOW 2 System Summary	<b>Item Number / Title [DODIC]:</b> C59403 / TOW Family of Missiles
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Missile Contract <sup>(†)</sup>		2014	Raytheon / Tucson	SS / FPIF	AMCOM, Redstone Arsenal, AL	Nov 2013	Nov 2015	988	79.980	Y		
Missile Contract <sup>(†)</sup>		2015	Raytheon / Tucson	SS / FPIF	AMCOM, Redstone Arsenal, AL	Dec 2014	Jul 2016	1,008	79.980	Y		
Missile Contract <sup>(†)</sup>		2016	Raytheon / Tucson	SS / FPIF	AMCOM, Redstone Arsenal, AL	Dec 2015	Jul 2017	1,704	67.700	Y		
Missile Contract <sup>(†)</sup>		2017	Raytheon / Tucson	SS / FPIF	AMCOM, Redstone Arsenal, AL	Jun 2017	Jan 2019	1,948	72.980	Y		
Missile Contract <sup>(†)</sup>		2018	Raytheon / Tucson	SS / FPIF	AMCOM, Redstone Arsenal, AL	Dec 2017	Jul 2019	1,205	79.960	Y		

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

**Remarks:**  
FY 2018 Base procurement dollars in the amount of \$105.8 million supports the second year of a five-year (FY17-21) multi-year contract.

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

AMCOM Aviation Missile Command  
FPIF Fixed Price Incentive Fee  
MY Multi-Year

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**Exhibit P-21, Production Schedule: FY 2018 Army** **Date: May 2017**

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A / 02 / 30 **P-1 Line Item Number / Title:** C59300 / TOW 2 System Summary **Item Number / Title [DODIC]:** C59403 / TOW Family of Missiles

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2014													Fiscal Year 2015													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014													Calendar Year 2015													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Missile Contract																																	
Prior Years Deliveries: 165551																																	
1		2014	ARMY	.988	.000	.988		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.988				
1		2014	FMS (†)	13.932	.000	13.932		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.932				
1		2014	MC (†)	.946	.000	.946		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.946				
<b>1</b>		<b>2014</b>	<b>Total</b>	<b>15.866</b>	<b>.000</b>	<b>15.866</b>		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>15.866</b>				
1		2015	ARMY	1.008	.000	1.008																							1.008				
1		2015	MC (†)	.112	.000	.112																							.112				
<b>1</b>		<b>2015</b>	<b>Total</b>	<b>1.120</b>	<b>.000</b>	<b>1.120</b>																							<b>1.120</b>				
1		2016	ARMY	1.704	.000	1.704																							1.704				
1		2016	MC (†)	.417	.000	.417																							.417				
<b>1</b>		<b>2016</b>	<b>Total</b>	<b>2.121</b>	<b>.000</b>	<b>2.121</b>																							<b>2.121</b>				
1		2017	ARMY	1.948	.000	1.948																							1.948				
1		2017	MC (†)	.060	.000	.060																							.060				
<b>1</b>		<b>2017</b>	<b>Total</b>	<b>2.008</b>	<b>.000</b>	<b>2.008</b>																							<b>2.008</b>				
1		2018	ARMY	1.205	.000	1.205																							1.205				
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S		
								C	O	E	A	E	A	P	A	U	U	U	E	C	O	V	E	A	E	A	P	A	U	U	U	E	
								T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P		

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**Exhibit P-21, Production Schedule: FY 2018 Army** **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A / 02 / 30 **P-1 Line Item Number / Title:** C59300 / TOW 2 System Summary **Item Number / Title [DODIC]:** C59403 / TOW Family of Missiles

Cost Elements <i>(Units in Thousands)</i>				Fiscal Year 2016														Fiscal Year 2017														BALANCE				
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P						
Missile Contract																																				
Prior Years Deliveries: 165551																																				
1	2014	ARMY		.988	.000	.988	-	.175	.175	.175	.175	.175	.113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.000				
1	2014	FMS (†)	13.932		.000	13.932	-	-	-	.425	.425	.425	.250	.363	.363	.272	.507	.507	.507	.507	.507	.507	.507	.507	.507	.507	.507	.507	.506	.506	.506	.506	.232	.232	.232	5.140
1	2014	MC (†)		.946	.000	.946	-	-	-	-	-	-	.237	.237	.237	.235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.000		
<b>1</b>	<b>2014</b>	<b>Total</b>	<b>15.866</b>	<b>.000</b>	<b>15.866</b>	<b>-</b>	<b>.175</b>	<b>.175</b>	<b>.600</b>	<b>.600</b>	<b>.600</b>	<b>.600</b>	<b>.600</b>	<b>.600</b>	<b>.507</b>	<b>.507</b>	<b>.507</b>	<b>.507</b>	<b>.507</b>	<b>.507</b>	<b>.507</b>	<b>.507</b>	<b>.507</b>	<b>.507</b>	<b>.507</b>	<b>.507</b>	<b>.506</b>	<b>.506</b>	<b>.506</b>	<b>.506</b>	<b>.506</b>	<b>.232</b>	<b>.232</b>	<b>.232</b>	<b>5.140</b>	
1	2015	ARMY		1.008	.000	1.008	-	-	-	-	-	-	-	-	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084				.000		
1	2015	MC (†)		.112	.000	.112	-	-	-	-	-	-	-	-	.009	.009	.009	.009	.009	.009	.009	.009	.009	.009	.009	.009	.010	.010	.010	.010				.000		
<b>1</b>	<b>2015</b>	<b>Total</b>	<b>1.120</b>	<b>.000</b>	<b>1.120</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>.093</b>	<b>.093</b>	<b>.093</b>	<b>.093</b>	<b>.093</b>	<b>.093</b>	<b>.093</b>	<b>.093</b>	<b>.093</b>	<b>.093</b>	<b>.093</b>	<b>.094</b>	<b>.094</b>	<b>.094</b>	<b>.094</b>	<b>.094</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>.000</b>		
1	2016	ARMY		1.704	.000	1.704			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.142	.142	.142	1.278		
1	2016	MC (†)		.417	.000	.417			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.417		
<b>1</b>	<b>2016</b>	<b>Total</b>	<b>2.121</b>	<b>.000</b>	<b>2.121</b>				<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>.142</b>	<b>.142</b>	<b>.142</b>	<b>1.695</b>			
1	2017	ARMY		1.948	.000	1.948																													1.948	
1	2017	MC (†)		.060	.000	.060																													.060	
<b>1</b>	<b>2017</b>	<b>Total</b>	<b>2.008</b>	<b>.000</b>	<b>2.008</b>																														<b>2.008</b>	
1	2018	ARMY		1.205	.000	1.205																													1.205	

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**Exhibit P-21, Production Schedule: FY 2018 Army** **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A / 02 / 30 **P-1 Line Item Number / Title:** C59300 / TOW 2 System Summary **Item Number / Title [DODIC]:** C59403 / TOW Family of Missiles

Cost Elements <i>(Units in Thousands)</i>				Fiscal Year 2018														Fiscal Year 2019														B A L A N C E			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 7	BAL D U E A S O F 1 O C T	Calendar Year 2018														Calendar Year 2019														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
Missile Contract																																			
Prior Years Deliveries: 165551																																			
1	2014	ARMY	.988	.988	.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.000				
1	2014	FMS (†)	13.932	8.792	5.140	.232	.230	.321	.400	.400	.400	.400	.400	.400	.400	.400	.400	.400	.400	.357											.000				
1	2014	MC (†)	.946	.946	.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.000					
<b>1</b>	<b>2014</b>	<b>Total</b>	<b>15.866</b>	<b>10.726</b>	<b>5.140</b>	<b>.232</b>	<b>.230</b>	<b>.321</b>	<b>.400</b>	<b>.400</b>	<b>.400</b>	<b>.400</b>	<b>.400</b>	<b>.400</b>	<b>.400</b>	<b>.400</b>	<b>.400</b>	<b>.400</b>	<b>.400</b>	<b>.357</b>	-	-	-	-	-	-	-	-	-	<b>.000</b>					
1	2015	ARMY	1.008	1.008	.000																									.000					
1	2015	MC (†)	.112	.112	.000																									.000					
<b>1</b>	<b>2015</b>	<b>Total</b>	<b>1.120</b>	<b>1.120</b>	<b>.000</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>.000</b>						
1	2016	ARMY	1.704	.426	1.278	.142	.142	.142	.142	.142	.142	.142	.142	.142	-	-	-	-	-											.000					
1	2016	MC (†)	.417	.000	.417	-	-	-	-	-	-	-	-	.085	.083	.083	.083	.083	.083											.000					
<b>1</b>	<b>2016</b>	<b>Total</b>	<b>2.121</b>	<b>.426</b>	<b>1.695</b>	<b>.142</b>	<b>.142</b>	<b>.142</b>	<b>.142</b>	<b>.142</b>	<b>.142</b>	<b>.142</b>	<b>.142</b>	<b>.142</b>	<b>.085</b>	<b>.083</b>	<b>.083</b>	<b>.083</b>	<b>.083</b>	<b>.083</b>	-	-	-	-	-	-	-	-	<b>.000</b>						
1	2017	ARMY	1.948	.000	1.948	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.175	.175	.175	.175	.175	.175	.175	.175	.373						
1	2017	MC (†)	.060	.000	.060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.060	-	-	-	-	-	-	-	.000						
<b>1</b>	<b>2017</b>	<b>Total</b>	<b>2.008</b>	<b>.000</b>	<b>2.008</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>.235</b>	<b>.175</b>	<b>.175</b>	<b>.175</b>	<b>.175</b>	<b>.175</b>	<b>.175</b>	<b>.175</b>	<b>.373</b>						
1	2018	ARMY	1.205	.000	1.205			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.175	.175	.680							
								O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				

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**Exhibit P-21, Production Schedule: FY 2018 Army** **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A / 02 / 30 **P-1 Line Item Number / Title:** C59300 / TOW 2 System Summary **Item Number / Title [DODIC]:** C59403 / TOW Family of Missiles

Cost Elements <i>(Units in Thousands)</i>				Fiscal Year 2020														Fiscal Year 2021														BALANCE			
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020														Calendar Year 2021														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
Missile Contract																																			
Prior Years Deliveries: 165551																																			
1	2014	ARMY	.988	.988	.000																												.000		
1	2014	FMS (+)	13.932	13.932	.000																												.000		
1	2014	MC (+)	.946	.946	.000																												.000		
<b>1</b>	<b>2014</b>	<b>Total</b>	<b>15.866</b>	<b>15.866</b>	<b>.000</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>.000</b>			
1	2015	ARMY	1.008	1.008	.000																												.000		
1	2015	MC (+)	.112	.112	.000																												.000		
<b>1</b>	<b>2015</b>	<b>Total</b>	<b>1.120</b>	<b>1.120</b>	<b>.000</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>.000</b>			
1	2016	ARMY	1.704	1.704	.000																												.000		
1	2016	MC (+)	.417	.417	.000																												.000		
<b>1</b>	<b>2016</b>	<b>Total</b>	<b>2.121</b>	<b>2.121</b>	<b>.000</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>.000</b>			
1	2017	ARMY	1.948	1.575	.373	.175	.175	.023																									.000		
1	2017	MC (+)	.060	.060	.000	-	-	-																									.000		
<b>1</b>	<b>2017</b>	<b>Total</b>	<b>2.008</b>	<b>1.635</b>	<b>.373</b>	<b>.175</b>	<b>.175</b>	<b>.023</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>.000</b>			
1	2018	ARMY	1.205	.525	.680	.175	.175	.175	.155																								.000		
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P						

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<b>Exhibit P-21, Production Schedule:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30		<b>P-1 Line Item Number / Title:</b> C59300 / TOW 2 System Summary
		<b>Item Number / Title [DODIC]:</b> C59403 / TOW Family of Missiles

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Raytheon - Tucson	2,100	7,200	16,800	3	2	16	18	3	2	16	18

**Remarks:**

Multiyear contracts do not follow the Administrative Lead Time shown for annual year contracts. FY17-FY21 Army: 6,911 (FY17 Base: 1,133, FY17 OCO: 815, FY18: 1,156, FY18 OCO: 49, FY19: 1,159, FY20: 1,156, FY21: 1,443). FY17 USMC: 60. FY22 Army: 1,29610 U.S. Code #2431 and DoD Financial Mgt Reg Vol 2B, Ch4 mandate Production Rates be defined in terms of "budget year."

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

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

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<b>Exhibit P-40, Advance Procurement Budget Line Item Justification:</b> FY 2018 Army							<b>Date:</b> May 2017				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys							<b>P-1 Line Item Number / Title:</b> C59300 / TOW 2 System Summary				
<b>Program Elements for Code B Items:</b> N/A							<b>Other Related Program Elements:</b> N/A				
<b>Line Item MDAP/MAIS Code:</b> N/A											

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	177.207	-	19.949	19.949	-	19.949	19.949	10.500	-	-	Continuing	Continuing
Net Procurement (P-1) ( <i>\$ in Millions</i> )	177.207	-	19.949	19.949	-	19.949	19.949	10.500	-	-	Continuing	Continuing
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>177.207</b>	-	<b>19.949</b>	<b>19.949</b>	-	<b>19.949</b>	<b>19.949</b>	<b>10.500</b>	-	-	<b>Continuing</b>	<b>Continuing</b>

**Description:**

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

TOW missiles are launched from a variety of combat systems in the active Army and Army National Guard including the Improved Target Acquisition System (ITAS), all infantry and cavalry variants of Bradley Fighting Vehicle Systems (BFVS), the Stryker Anti-Tank Guided Missile (ATGM) Light Armored Vehicle (LAV), and the M220A2 TOW 2 launcher. The USMC employs the TOW missile from its ITAS launchers, ATGM, and AH-1W Cobra helicopters. The TOW missile provides the warfighter with a highly lethal, cost effective, interoperable, multi-purpose weapon.

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**Exhibit P-40, Advance Procurement Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys	<b>P-1 Line Item Number / Title:</b> C59300 / TOW 2 System Summary
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<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Exhibits Schedule				Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-10	C59403 / TOW Family of Missiles			167,547 / 177.207	1,704 / -	1,948 / 19.949	1,156 / 19.949	49 / -	1,205 / 19.949
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>			<b>167,547 / 177.207</b>	<b>1,704 / -</b>	<b>1,948 / 19.949</b>	<b>1,156 / 19.949</b>	<b>49 / -</b>	<b>1,205 / 19.949</b>

\*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:**

FY17-21 multi-year procurement contains advanced procurement in years FY17-20 to support the procurement of components in economic order quantities required for missile production. FY18 advanced procurement in the amount of \$19.949 million is the second year of advanced procurement. 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.

**NOTES:**

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.



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<b>Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification):</b> FY 2018 Army					<b>Date:</b> May 2017	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30		<b>P-1 Line Item Number / Title:</b> C59300 / TOW 2 System Summary			<b>P-5 Number / Title:</b> C59403 / TOW Family of Missiles	
<b>First System (2018) Award Date:</b> December 2017		<b>First System (2018) Completion Date:</b> July 2018		<b>Interval Between Systems:</b> 12 Months		
<b>TOW Family of Missiles</b>		<b>Production Leadtime</b> <i>(Months)</i>	<b>Prior Years</b> <i>(Each)</i>	<b>FY 2016</b> <i>(Each)</i>	<b>FY 2017</b> <i>(Each)</i>	<b>FY 2018</b> <i>(Each)</i>
Quantity			167,547	1,704	1,948	1,205
<b>Cost Elements</b>		<b>When Required</b> <i>(Months)</i>	<b>Prior Years</b> <i>(\$ M)</i>	<b>FY 2016</b> <i>(\$ M)</i>	<b>FY 2017</b> <i>(\$ M)</i>	<b>FY 2018</b> <i>(\$ M)</i>
<b>Other</b>						
Launch Motor		14	9.460	-	0.899	0.841
Flight Motor		12	2.983	-	0.169	0.182
Warhead		19	72.464	-	7.070	7.129
Gyro		13	16.199	-	1.537	1.550
Flight Motor Case Kit		10	3.669	-	0.349	0.356
2B Sensor		18	57.178	-	8.475	8.546
Control Surface Actuator		13	9.580	-	0.910	0.841
Beacon Shutter Actuator		11	5.674	-	0.540	0.504
<i>Total: Other</i>			177.207	-	19.949	19.949
<b>Total Advance Procurement/Obligation Authority</b>			<b>177.207</b>	<b>-</b>	<b>19.949</b>	<b>19.949</b>

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**Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification):** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30	<b>P-1 Line Item Number / Title:</b> C59300 / TOW 2 System Summary	<b>P-5 Number / Title:</b> C59403 / TOW Family of Missiles
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Cost Elements	QPA <i>(Each)</i>	FY 2018					Total Cost Request <i>(\$ M)</i>
		Production Leadtime <i>(Months)</i>	Unit Cost <i>(\$ K)</i>	Contract Forecast Date	2018 Qty <i>(Each)</i>	For FY	
<b>Other</b>							
Launch Motor	1						0.841
Flight Motor	1						0.182
Warhead	1						7.129
Gyro	1						1.550
Flight Motor Case Kit	1						0.356
2B Sensor	1						8.546
Control Surface Actuator	1						0.841
Beacon Shutter Actuator	1						0.504
<i>Total: Other</i>							19.949
<b>Total Advance Procurement/Obligation Authority</b>							<b>19.949</b>

**Description:**  
 Advanced procurement funding in FY17, FY18, FY19 & FY20 procures EOQ to support the FY17-21 multi-year contract for 3,893 missiles.

On the P-10A the End Item Quantity for FY17 shows a quantity of 1,948 which is the sum of the FY17 Base and FY17 OCO. It should only show the FY17 Base which is 1,133.

On the P-10A the End Item Quantity for FY18 shows a quantity of 1,205 which is the sum of the FY18 Base, FY18 Option and FY18 OCO. It should only show the FY18 Base which is 640.

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**Exhibit P-40, Budget Line Item Justification: FY 2018 Army** **Date: May 2017**

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys	<b>P-1 Line Item Number / Title:</b> C64400 / Guided MLRS Rocket (GMLRS)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603778A, 0205778A
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**Line Item MDAP/MAIS Code: N/A**

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	22,134	1,542	2,954	4,458	1,542	6,000	1,242	2,352	1,650	1,848	3,838	43,560
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	2,735.905	251.060	402.579	595.182	191.522	786.704	180.409	319.623	268.534	358.795	882.740	6,186.349
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	2,735.905	251.060	402.579	595.182	191.522	786.704	180.409	319.623	268.534	358.795	882.740	6,186.349
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>2,735.905</b>	<b>251.060</b>	<b>402.579</b>	<b>595.182</b>	<b>191.522</b>	<b>786.704</b>	<b>180.409</b>	<b>319.623</b>	<b>268.534</b>	<b>358.795</b>	<b>882.740</b>	<b>6,186.349</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	123.606	162.815	136.283	133.509	124.204	131.117	145.257	135.894	162.748	194.153	230.000	142.019

**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 consists of three separate increments. GMLRS Dual Purpose Improved Conventional Munition (DPICM) was the first increment. It 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 is the second increment that 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 replacement to GMLRS DPICM. The Program completed the Engineering and Manufacturing Development (EMD) Phase and entered full rate production in FY15. The GMLRS AW rocket is 90% common with the Unitary variant.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	1,542	2,954	4,458	1,542	6,000	1,242	2,352	1,650	1,848
	Total Obligation Authority	251.060	402.579	595.182	191.522	786.704	180.409	319.623	268.534	358.795
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>1,542</b>	<b>2,954</b>	<b>4,458</b>	<b>1,542</b>	<b>6,000</b>	<b>1,242</b>	<b>2,352</b>	<b>1,650</b>	<b>1,848</b>
	<b>Total Obligation Authority</b>	<b>251.060</b>	<b>402.579</b>	<b>595.182</b>	<b>191.522</b>	<b>786.704</b>	<b>180.409</b>	<b>319.623</b>	<b>268.534</b>	<b>358.795</b>

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/  
Assault Missile Sys **P-1 Line Item Number / Title:**  
C64400 / Guided MLRS Rocket (GMLRS)

**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:** N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	C65404 / GUIDED MLRS ROCKET (GMLRS)	P-5a, P-21		260	22,134 / 2,733.281	1,542 / 250.617	2,954 / 402.129	4,458 / 594.691	1,542 / 191.522	6,000 / 786.213
P-40a	C65406 / GMLRS Training Devices				- / 2.624	- / 0.443	- / 0.450	- / 0.491	- / -	- / 0.491
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>22,134 / 2,735.905</b>	<b>1,542 / 251.060</b>	<b>2,954 / 402.579</b>	<b>4,458 / 595.182</b>	<b>1,542 / 191.522</b>	<b>6,000 / 786.704</b>

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

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

**Justification:**  
 FY 2018 Base procurement dollars in the amount of \$554.998 million support the acquisition of 4,458 GMLRS rockets for the United States Army. Army Procurement Objective is 43,560. In addition, Base procurement dollars in the amount of \$0.491 million support the acquisition of equipment and support to ensure Guided Multiple Launch Rocket Common Training Device alignment with the production configuration.  
  
 FY 2018 Base procurement dollars in the amount of \$39.693 million support the requirement for facilitization that would ramp up production to a maximum capacity of 10,000 rockets in the 4th Qtr FY2020 timeframe.  
  
 FY 2018 OCO procurement dollars in the amount of \$191.522 million support the COCOM requirement for unit equipment sets to deter potential adversaries and support the Operation Inherent Resolve (OIR). The procurements include 1,542 GMLRS rockets.  
  
 All funding goes to the Active Component.  
  
 In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30	<b>P-1 Line Item Number / Title:</b> C64400 / Guided MLRS Rocket (GMLRS)	<b>Item Number / Title [DODIC]:</b> C65404 / GUIDED MLRS ROCKET (GMLRS)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b> 260
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	22,134	1,542	2,954	4,458	1,542	6,000
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	2,733.281	250.617	402.129	594.691	191.522	786.213
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	2,733.281	250.617	402.129	594.691	191.522	786.213
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>2,733.281</b>	<b>250.617</b>	<b>402.129</b>	<b>594.691</b>	<b>191.522</b>	<b>786.213</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	123.488	162.527	136.130	133.399	124.204	131.036

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

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2016</b>			<b>FY 2017</b>			<b>FY 2018 Base</b>			<b>FY 2018 OCO</b>			<b>FY 2018 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
<b>Flyaway Cost</b>																		
<b>Recurring Cost</b>																		
Tactical GMLRS Hardware <sup>(†)</sup>	104.703	22,134	2,317.496	138.800	1,542	214.030	124.007	2,954	366.317	127.253	4,458	567.293	118.045	1,542	182.025	124.886	6,000	749.318
Ind Maint/Init Prod Fac	-	-	59.325	-	-	4.569	-	-	4.657	-	-	3.529	-	-	1.220	-	-	4.749
Production Verification Testing	-	-	49.668	-	-	6.278	-	-	6.398	-	-	4.849	-	-	1.699	-	-	6.548
First Destination Transportation	-	-	3.723	-	-	0.261	-	-	0.456	-	-	0.607	-	-	0.210	-	-	0.817
Production Engineering Support	-	-	142.492	-	-	11.842	-	-	12.068	-	-	9.145	-	-	3.163	-	-	12.308
Spares	-	-	1.277	-	-	1.635	-	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal: Recurring Cost</b>	-	-	<b>2,573.981</b>	-	-	<b>238.615</b>	-	-	<b>389.896</b>	-	-	<b>585.424</b>	-	-	<b>188.317</b>	-	-	<b>773.738</b>
<b>Subtotal: Flyaway Cost</b>	-	-	<b>2,573.981</b>	-	-	<b>238.615</b>	-	-	<b>389.896</b>	-	-	<b>585.424</b>	-	-	<b>188.317</b>	-	-	<b>773.738</b>
<b>Support Cost</b>																		
Engineering Services	-	-	91.600	-	-	5.679	-	-	5.789	-	-	4.385	-	-	1.516	-	-	5.901
Project Management Admin	-	-	67.700	-	-	6.323	-	-	6.444	-	-	4.883	-	-	1.689	-	-	6.572
<b>Subtotal: Support Cost</b>	-	-	<b>159.300</b>	-	-	<b>12.002</b>	-	-	<b>12.233</b>	-	-	<b>9.268</b>	-	-	<b>3.205</b>	-	-	<b>12.473</b>
<b>Gross/Weapon System Cost</b>	<b>123.488</b>	<b>22,134</b>	<b>2,733.281</b>	<b>162.527</b>	<b>1,542</b>	<b>250.617</b>	<b>136.130</b>	<b>2,954</b>	<b>402.129</b>	<b>133.399</b>	<b>4,458</b>	<b>594.691</b>	<b>124.204</b>	<b>1,542</b>	<b>191.522</b>	<b>131.036</b>	<b>6,000</b>	<b>786.213</b>

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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30	<b>P-1 Line Item Number / Title:</b> C64400 / Guided MLRS Rocket (GMLRS)	<b>Item Number / Title [DODIC]:</b> C65404 / GUIDED MLRS ROCKET (GMLRS)

**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:** 260

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	1,542	2,954	4,458	1,542	6,000
	Total Obligation Authority	250.617	402.129	594.691	191.522	786.213
<b>Total:</b>	<b>Quantity</b>	<b>1,542</b>	<b>2,954</b>	<b>4,458</b>	<b>1,542</b>	<b>6,000</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>250.617</b>	<b>402.129</b>	<b>594.691</b>	<b>191.522</b>	<b>786.213</b>

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

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<b>Exhibit P-5a, Procurement History and Planning: FY 2018 Army</b>							<b>Date: May 2017</b>					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30			<b>P-1 Line Item Number / Title:</b> C64400 / Guided MLRS Rocket (GMLRS)				<b>Item Number / Title [DODIC]:</b> C65404 / GUIDED MLRS ROCKET (GMLRS)					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Tactical GMLRS Hardware <sup>(†)</sup>		2015	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS / FPIF	Aviation and Missile Command	Jun 2015	Jun 2016	450	125.576			Feb 2013
Tactical GMLRS Hardware <sup>(†)</sup>		2016	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS / FPIF	Aviation and Missile Command	May 2016	May 2017	1,542	138.800			Feb 2016
Tactical GMLRS Hardware <sup>(†)</sup>		2017	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS / FPIF	Aviation and Missile Command	May 2017	Jul 2018	2,954	124.010			Feb 2016
Tactical GMLRS Hardware <sup>(†)</sup>		2018	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS / FPIF	Aviation and Missile Command	Feb 2018	Apr 2019	6,000	124.890			Feb 2017

<sup>(†)</sup> 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.

\*Sole Source/Fixed Price Incentive Firm

\*\*Aviation and Missile Command, Redstone Arsenal, Alabama

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<b>Exhibit P-21, Production Schedule: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30		<b>P-1 Line Item Number / Title:</b> C64400 / Guided MLRS Rocket (GMLRS)
		<b>Item Number / Title [DODIC]:</b> C65404 / GUIDED MLRS ROCKET (GMLRS)

Cost Elements <i>(Units in Each)</i>				Fiscal Year 2015														Fiscal Year 2016														B A L A N C E			
O C C O	M F R #	F Y	S E R V I C E	P R O C Q T Y	A C C E P T P R I O R T O 1 O C T 2 0 1 4	B A L D U E A S O F 1 O C T	Calendar Year 2015														Calendar Year 2016														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

Tactical GMLRS Hardware																																		
Prior Years Deliveries: 21684																																		
O C C O	M F R #	F Y	S E R V I C E	P R O C Q T Y	A C C E P T P R I O R T O 1 O C T 2 0 1 4	B A L D U E A S O F 1 O C T	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				
1	2015	ARMY		450	0	450																											288	
1	2015	MC (+)		60	0	60																												36
<b>1</b>	<b>2015</b>	<b>Total</b>		<b>510</b>	<b>0</b>	<b>510</b>																											<b>324</b>	
1	2016	ARMY		1,542	0	1,542																											1,542	
1	2016	FMS (+)		414	0	414																											414	
1	2016	MC (+)		90	0	90																											90	
<b>1</b>	<b>2016</b>	<b>Total</b>		<b>2,046</b>	<b>0</b>	<b>2,046</b>																											<b>2,046</b>	
1	2017	ARMY		2,954	0	2,954																											2,954	
1	2017	FMS (+)		492	0	492																											492	
1	2017	MC (+)		180	0	180																											180	
<b>1</b>	<b>2017</b>	<b>Total</b>		<b>3,626</b>	<b>0</b>	<b>3,626</b>																											<b>3,626</b>	
1	2018	ARMY		6,000	0	6,000																											6,000	
1	2018	FMS (+)		600	0	600																											600	
1	2018	MC (+)		240	0	240																											240	
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>6,840</b>	<b>0</b>	<b>6,840</b>																											<b>6,840</b>	



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<b>Exhibit P-21, Production Schedule: FY 2018 Army</b>														<b>Date: May 2017</b>																											
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30														<b>P-1 Line Item Number / Title:</b> C64400 / Guided MLRS Rocket (GMLRS)														<b>Item Number / Title [DODIC]:</b> C65404 / GUIDED MLRS ROCKET (GMLRS)													

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2017														Fiscal Year 2018														B A L A N C E		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T O 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017														Calendar Year 2018														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
Tactical GMLRS Hardware																																			
Prior Years Deliveries: 21684																																			
1	2015	ARMY		450	162	288	36	36	36	36	36	36	36	36																0					
1	2015	MC (+)		60	24	36	6	6	6	6	6	-	-																	0					
<b>1</b>	<b>2015</b>	<b>Total</b>		<b>510</b>	<b>186</b>	<b>324</b>	<b>42</b>	<b>42</b>	<b>42</b>	<b>42</b>	<b>42</b>	<b>36</b>	<b>36</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>						
1	2016	ARMY		1,542	0	1,542	-	-	-	-	-	-	162	162	162	162	162	162	162	84	84	84	84	72						0					
1	2016	FMS (+)		414	0	414	-	-	-	-	-	-	36	36	36	36	36	36	36	36	36	30	30	30						0					
1	2016	MC (+)		90	0	90	-	-	-	-	-	-	12	12	12	6	6	6	6	6	6	6	6	6						0					
<b>1</b>	<b>2016</b>	<b>Total</b>		<b>2,046</b>	<b>0</b>	<b>2,046</b>	-	-	-	-	-	-	<b>210</b>	<b>210</b>	<b>210</b>	<b>204</b>	<b>204</b>	<b>204</b>	<b>204</b>	<b>126</b>	<b>126</b>	<b>120</b>	<b>120</b>	<b>108</b>	-	-	-	-	<b>0</b>						
1	2017	ARMY		2,954	0	2,954							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	248	246	246	2,214					
1	2017	FMS (+)		492	0	492							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	42	42	42	366					
1	2017	MC (+)		180	0	180							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	18	18	18	126					
<b>1</b>	<b>2017</b>	<b>Total</b>		<b>3,626</b>	<b>0</b>	<b>3,626</b>							<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>308</b>	<b>306</b>	<b>306</b>	<b>2,706</b>						
1	2018	ARMY		6,000	0	6,000															A -	-	-	-	-	-	-	-	-	6,000					
1	2018	FMS (+)		600	0	600															A -	-	-	-	-	-	-	-	-	600					
1	2018	MC (+)		240	0	240															A -	-	-	-	-	-	-	-	-	240					
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>6,840</b>	<b>0</b>	<b>6,840</b>							<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6,840</b>						
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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<b>Exhibit P-21, Production Schedule: FY 2018 Army</b>															<b>Date: May 2017</b>														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30										<b>P-1 Line Item Number / Title:</b> C64400 / Guided MLRS Rocket (GMLRS)										<b>Item Number / Title [DODIC]:</b> C65404 / GUIDED MLRS ROCKET (GMLRS)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019													Fiscal Year 2020													BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Tactical GMLRS Hardware																																	
Prior Years Deliveries: 21684																																	
1	2015	ARMY		450	450	0																							0				
1	2015	MC (+)		60	60	0																							0				
<b>1</b>	<b>2015</b>	<b>Total</b>		<b>510</b>	<b>510</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
1	2016	ARMY		1,542	1,542	0																							0				
1	2016	FMS (+)		414	414	0																							0				
1	2016	MC (+)		90	90	0																							0				
<b>1</b>	<b>2016</b>	<b>Total</b>		<b>2,046</b>	<b>2,046</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
1	2017	ARMY		2,954	740	2,214	246	246	246	246	246	246	246																0				
1	2017	FMS (+)		492	126	366	42	42	42	42	42	42	36	36															0				
1	2017	MC (+)		180	54	126	18	18	18	12	12	12	12	12															0				
<b>1</b>	<b>2017</b>	<b>Total</b>		<b>3,626</b>	<b>920</b>	<b>2,706</b>	<b>306</b>	<b>306</b>	<b>306</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>294</b>	<b>294</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>					
1	2018	ARMY		6,000	0	6,000	-	-	-	-	-	500	500	500	500	500	500	500	500	500	500	500							0				
1	2018	FMS (+)		600	0	600	-	-	-	-	-	54	54	54	54	48	48	48	48	48	48	48							0				
1	2018	MC (+)		240	0	240	-	-	-	-	-	24	24	24	24	24	24	24	24	12	12	12							0				
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>6,840</b>	<b>0</b>	<b>6,840</b>	-	-	-	-	-	<b>578</b>	<b>578</b>	<b>578</b>	<b>578</b>	<b>572</b>	<b>572</b>	<b>572</b>	<b>572</b>	<b>560</b>	<b>560</b>	<b>560</b>	<b>560</b>	-	-	-	-	-	<b>0</b>				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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<b>Exhibit P-21, Production Schedule:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30		<b>P-1 Line Item Number / Title:</b> C64400 / Guided MLRS Rocket (GMLRS)
		<b>Item Number / Title [DODIC]:</b> C65404 / GUIDED MLRS ROCKET (GMLRS)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Martin M.&F.C Sys. - Dallas, TX	90	250	600	0	2	16	18	0	2	16	18

**Remarks:**

Production of GMLRS varies as this program shares a production line with Low Cost Reduced Range Practice Rockets (LCRRPR). There are no production gaps during months that GMLRS are not being produced as LCRRPR Rocket production continues. GMLRS and LCRRPR synergized production efforts result in a decreased unit cost for both programs. An established organic industrial base is in place to perform download/demate of M26 rocket pods to support production efforts for both programs. To account for FY18 US Army, Marine Corps, and Foreign Military Sales (FMS) deliveries, the maximum production rate was adjusted from 500 per month to 600 per month.

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

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

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

**UNCLASSIFIED**

**Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Army** **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A / 02 / 30 **P-1 Line Item Number / Title:** C64400 / Guided MLRS Rocket (GMLRS) **Aggregated Items Title:** Various

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<b>GMLRS Training Devices</b>																				
C65406 / GMLRS Training Devices			-	-	2.624	-	-	0.443	-	-	0.450	-	-	0.491	-	-	-	-	-	0.491
<i>Secondary Distribution</i>																				
Army			-	-	-	-	-	0.443	-	-	0.450	-	-	0.491	-	-	-	-	-	0.491
<b>Subtotal: GMLRS Training Devices</b>			<b>-</b>	<b>-</b>	<b>2.624</b>	<b>-</b>	<b>-</b>	<b>0.443</b>	<b>-</b>	<b>-</b>	<b>0.450</b>	<b>-</b>	<b>-</b>	<b>0.491</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.491</b>
<b>Total</b>			<b>-</b>	<b>-</b>	<b>2.624</b>	<b>-</b>	<b>-</b>	<b>0.443</b>	<b>-</b>	<b>-</b>	<b>0.450</b>	<b>-</b>	<b>-</b>	<b>0.491</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.491</b>

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

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys	<b>P-1 Line Item Number / Title:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0210602A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	36,555	3,546	1,704	3,420	-	3,420	2,160	1,896	3,552	3,684	Continuing	Continuing
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	189.804	39.975	18.004	28.321	-	28.321	21.147	19.628	31.476	33.079	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	189.804	39.975	18.004	28.321	-	28.321	21.147	19.628	31.476	33.079	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>189.804</b>	<b>39.975</b>	<b>18.004</b>	<b>28.321</b>	<b>-</b>	<b>28.321</b>	<b>21.147</b>	<b>19.628</b>	<b>31.476</b>	<b>33.079</b>	<b>Continuing</b>	<b>Continuing</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	5.192	11.273	10.566	8.281	-	8.281	9.790	10.352	8.861	8.979	Continuing	Continuing

**Description:**

The Multiple Launch Rocket System (MLRS) Low Cost Reduced Range Practice Rocket (LCRRPR) is the only live training rocket for High Mobility Artillery Rocket System (HIMARS) and M270/M270A1 MLRS Launcher units/crews. LCRRPR meets a critical validated requirement for Active and National Guard HIMARS and M270A1 launcher units to 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 Package (POP) boxes.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	2,310	1,092	2,700	-	2,700	1,338	1,074	2,832	2,766
	Total Obligation Authority	25.617	11.538	22.359	-	22.359	13.099	11.118	25.096	24.836
ANG	Quantity	1,236	612	720	-	720	822	822	720	918
	Total Obligation Authority	14.358	6.466	5.962	-	5.962	8.048	8.510	6.380	8.243
<b>Total:</b>	<b>Quantity</b>	<b>3,546</b>	<b>1,704</b>	<b>3,420</b>	<b>-</b>	<b>3,420</b>	<b>2,160</b>	<b>1,896</b>	<b>3,552</b>	<b>3,684</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>39.975</b>	<b>18.004</b>	<b>28.321</b>	<b>-</b>	<b>28.321</b>	<b>21.147</b>	<b>19.628</b>	<b>31.476</b>	<b>33.079</b>

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/  
Assault Missile Sys **P-1 Line Item Number / Title:**  
C65405 / MLRS Reduced Range Practice Rockets (RRPR)

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0210602A

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

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	C65405 / MLRS Reduced Range Practice Rockets (RRPR)	P-5a, P-21			36,555 / 189.804	3,546 / 39.975	1,704 / 18.004	3,420 / 28.321	- / -	3,420 / 28.321
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>36,555 / 189.804</b>	<b>3,546 / 39.975</b>	<b>1,704 / 18.004</b>	<b>3,420 / 28.321</b>	<b>- / -</b>	<b>3,420 / 28.321</b>

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

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

**Justification:**  
FY2018 Base procurement dollars in the amount of \$28.321 million support the procurement of 3,420 LCRRPRs which are required to maintain the practice rocket inventory for Standards in Training Commission (STRC) requirements.

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

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30	<b>P-1 Line Item Number / Title:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)	<b>Item Number / Title [DODIC]:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	36,555	3,546	1,704	3,420	-	3,420
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	189.804	39.975	18.004	28.321	-	28.321
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	189.804	39.975	18.004	28.321	-	28.321
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>189.804</b>	<b>39.975</b>	<b>18.004</b>	<b>28.321</b>	<b>-</b>	<b>28.321</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	5.192	11.273	10.566	8.281	-	8.281

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

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2016</b>			<b>FY 2017</b>			<b>FY 2018 Base</b>			<b>FY 2018 OCO</b>			<b>FY 2018 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
<b>Flyaway Cost</b>																		
<b>Recurring Cost</b>																		
Reduced Range Practice Rocket (LCRRPR) <sup>(f)</sup>	3.873	36,555	141.594	9.427	3,546	33.429	8.098	1,704	13.799	6.525	3,420	22.317	-	-	-	6.525	3,420	22.317
Warheads Govt Furnished Equip (GFE)	-	-	16.815	-	-	3.334	-	-	1.419	-	-	2.905	-	-	-	-	-	2.905
Production Verification Testing	-	-	3.500	-	-	0.072	-	-	0.073	-	-	0.074	-	-	-	-	-	0.074
First Destination Transportation	-	-	0.784	-	-	0.250	-	-	0.108	-	-	0.220	-	-	-	-	-	0.220
Production Engineering Support	-	-	12.623	-	-	1.816	-	-	1.509	-	-	1.689	-	-	-	-	-	1.689
<i>Subtotal: Recurring Cost</i>	-	-	<i>175.300</i>	-	-	<i>38.900</i>	-	-	<i>16.908</i>	-	-	<i>27.204</i>	-	-	-	-	-	<i>27.204</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>175.300</i>	-	-	<i>38.900</i>	-	-	<i>16.908</i>	-	-	<i>27.204</i>	-	-	-	-	-	<i>27.204</i>
<b>Support Cost</b>																		
Engineering Services	-	-	4.838	-	-	0.471	-	-	0.480	-	-	0.489	-	-	-	-	-	0.489
Project Management Admin	-	-	9.666	-	-	0.604	-	-	0.616	-	-	0.628	-	-	-	-	-	0.628
<i>Subtotal: Support Cost</i>	-	-	<i>14.504</i>	-	-	<i>1.075</i>	-	-	<i>1.096</i>	-	-	<i>1.117</i>	-	-	-	-	-	<i>1.117</i>
<b>Gross/Weapon System Cost</b>	<b>5.192</b>	<b>36,555</b>	<b>189.804</b>	<b>11.273</b>	<b>3,546</b>	<b>39.975</b>	<b>10.566</b>	<b>1,704</b>	<b>18.004</b>	<b>8.281</b>	<b>3,420</b>	<b>28.321</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8.281</b>	<b>3,420</b>	<b>28.321</b>

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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30	<b>P-1 Line Item Number / Title:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)	<b>Item Number / Title [DODIC]:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)

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

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	2,310	1,092	2,700	-	2,700
	Total Obligation Authority	25.617	11.538	22.359	-	22.359
ANG	Quantity	1,236	612	720	-	720
	Total Obligation Authority	14.358	6.466	5.962	-	5.962
<b>Total:</b>	<b>Quantity</b>	<b>3,546</b>	<b>1,704</b>	<b>3,420</b>	<b>-</b>	<b>3,420</b>
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>39.975</b>	<b>18.004</b>	<b>28.321</b>	<b>-</b>	<b>28.321</b>

(†) indicates the presence of a P-5a



**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning: FY 2018 Army</b>								<b>Date: May 2017</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30				<b>P-1 Line Item Number / Title:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)				<b>Item Number / Title [DODIC]:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)			

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Reduced Range Practice Rocket (LCRRPR) <sup>(†)</sup>		2015	Lockheed Martin / Dallas, TX	SS / FPIF	AMCOM,RSA,AL	Jun 2015	Oct 2016	1,182	6.230	Y		Feb 2013
Reduced Range Practice Rocket (LCRRPR) <sup>(†)</sup>		2015	Letterkenny Munitions Center / Chambersburg, PA	MIPR	LEMC, PA	Mar 2016	Feb 2017	342	5.350	Y		
Reduced Range Practice Rocket (LCRRPR) <sup>(†)</sup>		2016	Lockheed Martin / Dallas, TX	SS / FPIF	AMCOM,RSA,AL	May 2016	Sep 2017	3,204	9.300	Y		Feb 2016
Reduced Range Practice Rocket (LCRRPR) <sup>(†)</sup>		2016	Letterkenny Munitions Center / Chambersburg, PA	MIPR	LEMC, PA	Jan 2017	Feb 2017	342	5.650	Y		
Reduced Range Practice Rocket (LCRRPR) <sup>(†)</sup>		2017	Lockheed Martin / Dallas, TX	SS / FPIF	AMCOM,RSA,AL	May 2017	Apr 2018	1,362	8.660	Y		Feb 2016
Reduced Range Practice Rocket (LCRRPR) <sup>(†)</sup>		2017	Letterkenny Munitions Center / Chambersburg, PA	MIPR	LEMC, PA	Mar 2018	Apr 2018	342	5.850	Y		
Reduced Range Practice Rocket (LCRRPR) <sup>(†)</sup>		2018	Lockheed Martin / Dallas, TX	SS / FPIF	AMCOM,RSA,AL	Feb 2018	Apr 2019	3,078	6.590	Y		Feb 2017
Reduced Range Practice Rocket (LCRRPR) <sup>(†)</sup>		2018	Letterkenny Munitions Center / Chambersburg, PA	MIPR	LEMC, PA	Mar 2019	Apr 2019	342	5.960	Y		

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

**Remarks:**

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.

\* Sole Source/Fixed Price Incentive Firm

\*\* Aviation and Missile Command, Redstone Arsenal, AL

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<b>Exhibit P-21, Production Schedule: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30		<b>P-1 Line Item Number / Title:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)
		<b>Item Number / Title [DODIC]:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2015														Fiscal Year 2016														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015														Calendar Year 2016														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
Reduced Range Practice Rocket (LCRRPR)																																			
Prior Years Deliveries: 35031																																			
1	2015	ARMY		1,182	0	1,182																											1,182		
1	2015	MC (+)		648	0	648																											648		
<b>1</b>	<b>2015</b>	<b>Total</b>		<b>1,830</b>	<b>0</b>	<b>1,830</b>																											<b>1,830</b>		
2	2015	ARMY		342	0	342																											342		
1	2016	ARMY		3,204	0	3,204																											3,204		
1	2016	MC (+)		648	0	648																											648		
<b>1</b>	<b>2016</b>	<b>Total</b>		<b>3,852</b>	<b>0</b>	<b>3,852</b>																											<b>3,852</b>		
2	2016	ARMY		342	0	342																											342		
1	2017	ARMY		1,362	0	1,362																											1,362		
1	2017	MC (+)		648	0	648																											648		
<b>1</b>	<b>2017</b>	<b>Total</b>		<b>2,010</b>	<b>0</b>	<b>2,010</b>																											<b>2,010</b>		
2	2017	ARMY		342	0	342																											342		
1	2018	ARMY		3,078	0	3,078																											3,078		
1	2018	MC (+)		648	0	648																											648		
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>3,726</b>	<b>0</b>	<b>3,726</b>																											<b>3,726</b>		
2	2018	ARMY		342	0	342																											342		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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<b>Exhibit P-21, Production Schedule: FY 2018 Army</b>															<b>Date: May 2017</b>														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30										<b>P-1 Line Item Number / Title:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)										<b>Item Number / Title [DODIC]:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)									

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2017													Fiscal Year 2018													B A L A N C E		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 6	BAL D U E A S O F 1 O C T	Calendar Year 2017													Calendar Year 2018													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Reduced Range Practice Rocket (LCRRPR)																																	
Prior Years Deliveries: 35031																																	
1	2015	ARMY		1,182	0	1,182	98	98	98	99	99	99	99	99	99	98	98	98												0			
1	2015	MC (†)		648	0	648	54	54	54	54	54	54	54	54	54	54	54													0			
<b>1</b>	<b>2015</b>	<b>Total</b>		<b>1,830</b>	<b>0</b>	<b>1,830</b>	<b>152</b>	<b>152</b>	<b>152</b>	<b>153</b>	<b>153</b>	<b>153</b>	<b>153</b>	<b>153</b>	<b>153</b>	<b>152</b>	<b>152</b>	<b>152</b>	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
2	2015	ARMY		342	0	342	-	-	-	-	28	28	28	29	29	29	29	29	28	28	28									0			
1	2016	ARMY		3,204	0	3,204	-	-	-	-	-	-	-	-	-	-	-	267	267	267	267	267	267	267	267	267	267	267		0			
1	2016	MC (†)		648	0	648	-	-	-	-	-	-	-	-	-	-	-	54	54	54	54	54	54	54	54	54	54	54		0			
<b>1</b>	<b>2016</b>	<b>Total</b>		<b>3,852</b>	<b>0</b>	<b>3,852</b>	-	-	-	-	-	-	-	-	-	-	-	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>0</b>				
2	2016	ARMY		342	0	342				A -	28	28	28	29	29	29	29	29	29	28	28	28								0			
1	2017	ARMY		1,362	0	1,362							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	683				
1	2017	MC (†)		648	0	648							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	432				
<b>1</b>	<b>2017</b>	<b>Total</b>		<b>2,010</b>	<b>0</b>	<b>2,010</b>							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>1,115</b>				
2	2017	ARMY		342	0	342																								170			
1	2018	ARMY		3,078	0	3,078																								3,078			
1	2018	MC (†)		648	0	648																								648			
<b>1</b>	<b>2018</b>	<b>Total</b>		<b>3,726</b>	<b>0</b>	<b>3,726</b>																								<b>3,726</b>			
2	2018	ARMY		342	0	342																								342			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: FY 2018 Army																							Date: May 2017										
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30										P-1 Line Item Number / Title: C65405 / MLRS Reduced Range Practice Rockets (RRPR)										Item Number / Title [DODIC]: C65405 / MLRS Reduced Range Practice Rockets (RRPR)													
Cost Elements (Units in Each)						Fiscal Year 2019													Fiscal Year 2020													BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Reduced Range Practice Rocket (LCRRPR)																																	
Prior Years Deliveries: 35031																																	
1	2015	ARMY	1,182	1,182	0																									0			
1	2015	MC (+)	648	648	0																									0			
<b>1</b>	<b>2015</b>	<b>Total</b>	<b>1,830</b>	<b>1,830</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
2	2015	ARMY	342	342	0																									0			
1	2016	ARMY	3,204	3,204	0																									0			
1	2016	MC (+)	648	648	0																									0			
<b>1</b>	<b>2016</b>	<b>Total</b>	<b>3,852</b>	<b>3,852</b>	<b>0</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
2	2016	ARMY	342	342	0																									0			
1	2017	ARMY	1,362	679	683	114	114	114	114	114	113	-	-																	0			
1	2017	MC (+)	648	216	432	54	54	54	54	54	54	54	54																	0			
<b>1</b>	<b>2017</b>	<b>Total</b>	<b>2,010</b>	<b>895</b>	<b>1,115</b>	<b>168</b>	<b>168</b>	<b>168</b>	<b>168</b>	<b>168</b>	<b>167</b>	<b>54</b>	<b>54</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>0</b>				
2	2017	ARMY	342	172	170	29	29	28	28	28	28																			0			
1	2018	ARMY	3,078	0	3,078	-	-	-	-	-	-	256	256	256	256	257	257	257	257	257	257	256	256	-						0			
1	2018	MC (+)	648	0	648	-	-	-	-	-	-	54	54	54	54	54	54	54	54	54	54	54	54	54						0			
<b>1</b>	<b>2018</b>	<b>Total</b>	<b>3,726</b>	<b>0</b>	<b>3,726</b>	-	-	-	-	-	-	<b>256</b>	<b>310</b>	<b>310</b>	<b>310</b>	<b>311</b>	<b>311</b>	<b>311</b>	<b>311</b>	<b>311</b>	<b>310</b>	<b>310</b>	<b>54</b>	-	-	-	-	-	<b>0</b>				
2	2018	ARMY	342	0	342							A -	28	28	28	29	29	29	29	29	28	28	28							0			

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<b>Exhibit P-21, Production Schedule:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30		<b>P-1 Line Item Number / Title:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)
		<b>Item Number / Title [DODIC]:</b> C65405 / MLRS Reduced Range Practice Rockets (RRPR)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Martin - Dallas, TX	42	480	960	0	2	16	18	0	2	16	18
2	Letterkenny Munitions Center - Chambersburg, PA	42	72	120	0	2	16	18	0	2	16	18

**Remarks:**  
 Production of Low Cost Reduced Range Practice Rockets (LCRRPRs) varies as this program shares a production line with Guide Multiple Launch Rocket System (GMLRS). There are no production gaps during months that LCRRPRs are not being produced as GMLRS Rocket production continues. Continued production of LCRRPRs at Camden, Arkansas mitigates shared production costs with GMLRS and Army Tactical Missile System (ATACMS).

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

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

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys	<b>P-1 Line Item Number / Title:</b> C02901 / High Mobility Artillery Rocket System (HIMARS)
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0210608A, 0603778A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	387	-	-	-	-	-	-	-	-	-	-	387
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,667.667	-	-	-	41.000	41.000	-	-	-	-	-	1,708.667
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,667.667	-	-	-	41.000	41.000	-	-	-	-	-	1,708.667
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>1,667.667</b>	-	-	-	<b>41.000</b>	<b>41.000</b>	-	-	-	-	-	<b>1,708.667</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	4,309.217	-	-	-	-	-	-	-	-	-	-	4,415.160

**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/misile launcher capable of firing one pod of precision rockets/missiles from the Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM), to include the Guided Multiple Launch Rocket System (GMLRS) and the Army Tactical Missile System (ATACMS). These munitions are capable of engaging targets with precision at ranges up to 300 kilometers.

Army Acquisition Objective (AAO) is 363 HIMARS launchers. The European Reassurance Initiative (ERI) will increase this AAO by 32 launchers.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	41.000	41.000	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	-	-	-	<b>41.000</b>	<b>41.000</b>	-	-	-

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/  
Assault Missile Sys **P-1 Line Item Number / Title:**  
C02901 / High Mobility Artillery Rocket System (HIMARS)

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0210608A, 0603778A

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

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	C03000 / HIMARS LAUNCHER				387 / 1,623.489	- / -	- / -	- / -	- / 41.000	- / 41.000
P-5	C03001 / HIMARS Training Devices			367	- / 44.178	- / -	- / -	- / -	- / -	- / -
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>387 / 1,667.667</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 41.000</b>	<b>- / 41.000</b>

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

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

**Justification:**  
FY2018 OCO procurement dollars in the amount of \$41.000 million support Non-Recurring Engineering requirements associated with common obsolescence mitigation of the HIMARS and MLRS launchers. These activities are required to re-enable production for the requirements of a 32 HIMARS and 32 MLRS launcher European Reassurance Initiative (ERI)-driven Army Acquisition Objective (AAO) increase per launcher variant. All Fire Control System (FCS) design obsolescence will be addressed, and the HIMARS supply chain will be assessed in preparation for HIMARS production line restart in FY2019. The long-term FCS hardware architecture will address M-Code incorporation to comply with public law and fully enable a common FCS capability across both the HIMARS and MLRS launcher fleets upon FCS upgrade. Completion of these activities will induce significant long-term cost savings in sustainment of the launcher fleets given the FY17 Army decision to extend the operational life of HIMARS and MLRS beyond FY2050. This represents an approximate 20 year increase in the operational service life.

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

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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30	<b>P-1 Line Item Number / Title:</b> C02901 / High Mobility Artillery Rocket System (HIMARS)	<b>Item Number / Title [DODIC]:</b> C03000 / HIMARS LAUNCHER

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	387	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,623.489	-	-	-	41.000	41.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,623.489	-	-	-	41.000	41.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,623.489</b>	-	-	-	<b>41.000</b>	<b>41.000</b>

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	4,195.062	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<b>Flyaway Cost</b>																		
<b>Recurring Cost</b>																		
Launcher	-	-	1,050.619	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carrier	-	-	189.532	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Services	-	-	118.849	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	63.549	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Facilitization	-	-	28.410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Project Management Admin	-	-	8.090	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Production Engineering	-	-	96.080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government Testing	-	-	31.173	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peculiar Support Equipment	-	-	37.187	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal: Recurring Cost</b>	-	-	<b>1,623.489</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Non Recurring Cost</b>																		
European Reassurance Initiative Production Restart - Obsolescence Mitigation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41.000	-	-	41.000
<b>Subtotal: Non Recurring Cost</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>41.000</b>	-	-	<b>41.000</b>
<b>Subtotal: Flyaway Cost</b>	-	-	<b>1,623.489</b>	-	-	-	-	-	-	-	-	-	-	-	<b>41.000</b>	-	-	<b>41.000</b>



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<b>Exhibit P-5, Cost Analysis: FY 2018 Army</b>												<b>Date: May 2017</b>					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30						<b>P-1 Line Item Number / Title:</b> C02901 / High Mobility Artillery Rocket System (HIMARS)						<b>Item Number / Title [DODIC]:</b> C03000 / HIMARS LAUNCHER					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :												<b>MDAP/MAIS Code:</b>					

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	4,195.062	387	1,623.489	-	-	-	-	-	-	-	-	-	-	-	41.000	-	-	41.000

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	-	41.000	41.000
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	-	-	-	41.000	41.000

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**Exhibit P-5, Cost Analysis: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 02 / 30	<b>P-1 Line Item Number / Title:</b> C02901 / High Mobility Artillery Rocket System (HIMARS)	<b>Item Number / Title [DODIC]:</b> C03001 / HIMARS Training Devices
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:** 367

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	44.178	-	-	-	-	-
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	44.178	-	-	-	-	-
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>44.178</b>	-	-	-	-	-

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

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

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
OMEMS Tactical Trainer	-	-	31.152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MFOM Simulator (MLPA)	-	-	8.493	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organizational Maintenance Trainer	-	-	4.533	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<b>44.178</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	<b>44.178</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	<b>44.178</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys	<b>P-1 Line Item Number / Title:</b> C88001 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	645	-	-	-	-	-	-	-	-	645
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	63.577	-	8.669	8.669	-	-	-	-	-	72.246
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	-	63.577	-	8.669	8.669	-	-	-	-	-	72.246
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	<b>63.577</b>	-	<b>8.669</b>	<b>8.669</b>	-	-	-	-	-	<b>72.246</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	-	-	98.569	-	-	-	-	-	-	-	-	112.009

**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 up to seconds 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 Fractional Casualty against Personnel in Soft Skinned Vehicles. Pre-flight Component Assembly and Storage allows operation within a matter of minutes.

LMAMS Procurement Quantity is the number of All Up Rounds (AUR) to be procured in the fiscal year.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	645	-	-	-	-	-	-	-
Total Obligation Authority	-	63.577	-	8.669	8.669	-	-	-	-
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	<b>645</b>	-	-	-	-	-	-	-
Total Obligation Authority	-	<b>63.577</b>	-	<b>8.669</b>	<b>8.669</b>	-	-	-	-

**Justification:**

FY 2017 Overseas Contingency Operations (OCO) dollars in the amount of \$4.77 Million support the procurement of 50 Inert Training Missiles, 10 Training Simulators, 10 Fire Control Units (FCUs), and training support equipment along with fielding and support in order to support pre-deployment training and procure new systems required by Joint Urgent Operational Needs Statement (JUONS) 0506.

FY 2017 Overseas Contingency Operations (OCO) dollars in the amount of \$12.3 Million support the procurement of 110 All Up Rounds (AUR), 50 Inert Training Missiles, 12 Training Simulators, 12 Fire Control Units (FCUs) and training support equipment along with fielding and support in order to support pre-deployment training and procure new systems required by Joint Urgent Operational Needs Statement (JUONS) AC-0008.

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys		<b>P-1 Line Item Number / Title:</b> C88001 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>FY 2017 Overseas Contingency Operations (OCO) dollars in the amount of \$46.5 Million support the procurement of 535 All Up Rounds (AUR), 100 Inert Training Missiles, 26 Training Simulators, 26 Fire Control Units (FCUs) and training support equipment along with fielding and support in order to support pre-deployment training and procure new systems required by Joint Urgent Operational Needs Statement (JUONS) 0556.</p> <p>FY 2018 Overseas Contingency Operations (OCO) dollars in the amount of \$8.669 Million support the procurement of 120 Inert Training Missiles and training support equipment along with fielding and support in order to support pre-deployment training and procure new systems required by Joint Urgent Operational Needs Statement (JUONS) 0556.</p>		

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**Exhibit P-40, Budget Line Item Justification: FY 2018 Army** **Date: May 2017**

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0607865A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	3,188.044	241.883	425.307	329.073	-	329.073	380.978	201.228	234.245	214.324	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	3,188.044	241.883	425.307	329.073	-	329.073	380.978	201.228	234.245	214.324	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>3,188.044</b>	<b>241.883</b>	<b>425.307</b>	<b>329.073</b>	<b>-</b>	<b>329.073</b>	<b>380.978</b>	<b>201.228</b>	<b>234.245</b>	<b>214.324</b>	<b>Continuing</b>	<b>Continuing</b>

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

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

**Description:**

The 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; crew interface and communication upgrades.

PATRIOT Mods funding supports Reliability, Availability, and Maintainability (RAM) Mods; Recapitalization (RECAP); Battery Command Post/ Tactical Command System /Computer Software Module (BCP/TCS/ CSM) Mod; the Combined Crypto Modification Phase I (CCMPI) upgrade; the Radar Digital Processor-Configuration (RDP-C) upgrade; the Air Defense Artillery (ADA) School Upgrades/ Training Aids, Devices, Simulators and Simulations (TADSS); PATRIOT Maintenance Trainer (PMT); PATRIOT Multi-Echelon Training (PMET); Reconfigurable Table Top Trainers (RT3); Assured Positioning, Navigation, and Timing (PNT); Test Detachment; the Modern Manstation (MMS) upgrade; Enhanced Launcher Electronic Systems (ELES); SIPRNet/NIPRNet Access Point/Troposcatter (SNAP/TROPO), Digital Sidelobe Canceller (DSLCL), and Command Obsolescence Alleviation.

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.

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.

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

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications		<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0607865A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>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.</p> <p>Combined Crypto Modification Phase I (CCMPI): The planned PATRIOT communications upgrade program is a phased approach leveraging National Security Agency (NSA) mandated crypto updates, user generated requirements, (PATRIOT Data Information Link (PADIL) over IP), Beyond Line of Sight (BLOS) communications, and communications hardware obsolescence mitigation efforts. This approach allows cost efficiencies and better business practices by synergizing these efforts. CCMPI is fully funded and addresses the PAC-3 Capability Production Document (CPD) requirements including the crypto modernization, a limited PADIL over Internet Protocol (IP) capability, and 3011C multi-cast (protocol). CCMPI installs a Black Station Clock Upgrade (BSCU) to allow for increased data rates; the Ruggedized iQ1000 (RiQ) for data processing and IP overlay; and interfaces for soldier provided SIPR/NIPR devices. The CCMPI program also replaces KG-94A/194A encryptors with KIV-7M encryptors.</p> <p>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 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 kits and some spares.</p> <p>The Air Defense Artillery (ADA) School Upgrades/Training Aids, Devices, Simulators and Simulations (TADSS) modification is necessary to upgrade school assets to Configuration 3. Four Radar Kits will complete the school upgrades.</p> <p>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, 140E, 14T, 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 tactical embedded training software (re-hosted tactical training software, PATRIOT Conduct of Fire Trainer (PCOFT)) for operations tasks, the P-MET software for maintenance tasks, and the PATRIOT Skills Library (PSL) lessons for both maintenance and operator tasks. Other weapon systems may also use the RT3 platform for training (i.e., C-RAM, THAAD, and JLENS). The RT3 is a Life Cycle Replacement for the PCOFT and the PATRIOT Intermediate Maintenance Institutional Trainer (PIMIT) hardware platforms.</p> <p>The Modern Manstation (MMS) is designed to significantly improve the reliability of the legacy Manstation by replacing 221 obsolete parts in 41 assemblies and reducing Battery Replaceable Units (BRUs) from 493 to 51. Benefits of the MMS include the installation of two 30" high resolution color LCD displays with touch panels; significant increase in Mean Time Between Failure rates; elimination of a costly Multi-Volt power supply while greatly improving the overall visual graphics used for decision making. The MMS upgrades increased Warfighter effectiveness; enable future capabilities; increase reliability; and reduce life cycle costs. Training will be aligned with the tactical system using the same technology, providing geopolitical maps, and utilizing color symbology for immediate recognition of friend, foe or unknown. Soft keys will enable future switch configurations with software upgrades. The MMS also enables future graphical user interface with Common Warfighter Machine Interface (CWMI) systems. The MMS modification upgrade will be incorporated into the Engagement Control Station (ECS) and the Information and Coordination Central (ICC) Shelters.</p> <p>The Enhanced Launcher Electronics System (ELES) modification upgrades a PAC-2 Launcher to a PAC-3 Capability.</p> <p>In addition to the ELES modification kit, last time procurement of obsolete components will occur to support the assured producibility of the ELES.</p>		

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications		<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0607865A
<b>Line Item MDAP/MAIS Code:</b> N/A		

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.

Assured Position, Navigation and Timing (PNT) - Purchases integrated Project Manager (PM) PNT M-code capable hardware for integration on Patriot Major End Items (MEI). Effort supports mandated FY2011 National Defense Authorization Act; public law 111-383 § 913.

Test Detachment - A manned and equipped unit consisting of various ancillary PATRIOT Ground Support Equipment elements that will assume the testing role and relieve operational units. The Air and Missile Defense (AMD) test detachment is a Table of Distribution and Allowances (TDA) unit consisting of 143 personnel containing a mixture of air defense, communications and maintenance Military Occupational Specialty (MOS) Soldiers which participate in all government developmental tests, missile flight tests, Tactics Techniques and Procedures (TTP) development and operational testing in support of the development, modernization and sustainment of current and future AMD programs. Applied modernization configuration and capability will include funding to support the Radar Digital Processor (RDP), Modern Man Station (MMS), Combined Crypto Modernization Phase-1 (CCMP-1) and Post Deployment Build 8 (PDB-8) enhancements. Use of this detachment to support testing versus tasking operational PATRIOT units allows execution of currently scheduled testing while vastly minimizing the stress on the 15 PATRIOT Battalions in the operational force.

Digital Sidelobe Canceller (DSLCL) 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. DSLCL replaces the analog hardware and performs this task digitally in the radars processor. Benefits of the DSLCL 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.

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

35th Brigade Modification Kits provides mod kits to support the VCSA initiative accelerating the 35th BDE modernization.

ADI TPX 57 Obsolescence addresses the IFF Interrogator.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	241.883	425.307	329.073	-	329.073	380.978	201.228	234.245	214.324
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	241.883	425.307	329.073	-	329.073	380.978	201.228	234.245	214.324

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications

**P-1 Line Item Number / Title:**  
C50700 / 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

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	C50700 / PATRIOT MODS (Various)				- / 3,188.044	- / 241.883	- / 425.307	- / 329.073	- / -	- / 329.073
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 3,188.044</b>	<b>- / 241.883</b>	<b>- / 425.307</b>	<b>- / 329.073</b>	<b>- / -</b>	<b>- / 329.073</b>

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	C50700 / PATRIOT MODS (Various)				- / -	- / -	- / -	- / -	- / -	- / -
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 380.978</b>	<b>- / 201.228</b>	<b>- / 234.245</b>	<b>- / 214.324</b>	<b>Continuing</b>	<b>Continuing</b>

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

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

**Justification:**  
FY 2018 base procurement dollars in the amount of \$329.073 million supports the modifications for Reliability, Availability, and Maintainability Modifications (RAM Mods), Recapitalization (RECAP), Battery Command Post/ Tactical Command System/ Computer Software Module (BCP/TCS/CSM), Combined Crypto Modification Phase I (CCMPI), Radar Digital Processor-Configuration (RDP-C), Enhanced Launcher Electronics System (ELES), SIPRNet/NIPRNet Access Point/Troposcatter (SNAP/TROPO), PATRIOT Maintenance Trainer (PMT), PATRIOT Multi-Echelon Training (PMET), Test Detachment, Digital Sidelobe Canceller (DSLCL), and Command Obsolescence Alleviation.

Efforts have been and will continue to be made to expedite PATRIOT materiel solutions (e.g., Radar Digital Processor and Communications Upgrades) to both enhance capability and facilitate integration into the Integrated Air and Missile Defense (IAMD) architecture.

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



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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS

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

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	3,188.044	241.883	425.307	329.073	-	329.073	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	3,188.044	241.883	425.307	329.073	-	329.073	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>3,188.044</b>	<b>241.883</b>	<b>425.307</b>	<b>329.073</b>	-	<b>329.073</b>	-	-	-	-	-	-

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

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

**Description:**

The 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.

<b>Secondary Distribution</b>		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	241.883	425.307	329.073	-	329.073	-	-	-	-
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	241.883	425.307	329.073	-	329.073	-	-	-	-

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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>										<b>Date: May 2017</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10					<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods					<b>Modification Number / Title:</b> C50700 / PATRIOT MODS			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> Various				<b>Modification Type:</b> Various				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>													
<b>Modification Item 1 of 18: RAM Mods</b>													
A Kits													
Recurring													
Kit Quantity	6,324 / 622.559	110 / 17.100	129 / 27.161	131 / 20.593	0 / 0.000	131 / 20.593	- / -	- / -	- / -	- / -	- / -	- / -	
Training	0 / 48.733	0 / 13.000	0 / 12.925	0 / 15.601	0 / 0.000	0 / 15.601	- / -	- / -	- / -	- / -	- / -	- / -	
Training Equipment	0 / 21.229	0 / 2.500	0 / 2.585	0 / 3.113	0 / 0.000	0 / 3.113	- / -	- / -	- / -	- / -	- / -	- / -	
Support Equipment	0 / 32.528	0 / 6.850	0 / 6.721	0 / 8.116	0 / 0.000	0 / 8.116	- / -	- / -	- / -	- / -	- / -	- / -	
Other	0 / 59.467	0 / 11.550	0 / 11.374	0 / 13.729	0 / 0.000	0 / 13.729	- / -	- / -	- / -	- / -	- / -	- / -	
Integrated Logistics Support	0 / 8.637	0 / 1.100	0 / 1.034	0 / 1.257	0 / 0.000	0 / 1.257	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 793.153</b>	<b>- / 52.100</b>	<b>- / 61.800</b>	<b>- / 62.409</b>	<b>- / 0.000</b>	<b>- / 62.409</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: RAM Mods</b>	<b>6,324 / 793.153</b>	<b>110 / 52.100</b>	<b>129 / 61.800</b>	<b>131 / 62.409</b>	<b>0 / 0.000</b>	<b>131 / 62.409</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Modification Item 2 of 18: Recapitalization</b>													
A Kits													
Recurring													
Kit Quantity	12 / 210.139	1 / 11.200	1 / 12.411	1 / 12.650	0 / 0.000	1 / 12.650	- / -	- / -	- / -	- / -	- / -	- / -	
Integrated Logistics Support	0 / 14.606	0 / 1.900	0 / 0.802	0 / 1.650	0 / 0.000	0 / 1.650	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 224.745</b>	<b>- / 13.100</b>	<b>- / 13.213</b>	<b>- / 14.300</b>	<b>- / 0.000</b>	<b>- / 14.300</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: Recapitalization</b>	<b>12 / 224.745</b>	<b>1 / 13.100</b>	<b>1 / 13.213</b>	<b>1 / 14.300</b>	<b>0 / 0.000</b>	<b>1 / 14.300</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Modification Item 3 of 18: BCP/TCS/CSM</b>													
A Kits													
Recurring													
Engineering Change Orders	0 / 1.415	0 / 0.660	0 / 0.770	0 / 0.770	0 / 0.000	0 / 0.770	- / -	- / -	- / -	- / -	- / -	- / -	
Fielding Support	0 / 3.139	0 / 0.840	0 / 0.980	0 / 0.980	0 / 0.000	0 / 0.980	- / -	- / -	- / -	- / -	- / -	- / -	
Obsolescence/Tech Refresh	0 / 0.493	0 / 0.240	0 / 0.280	0 / 0.280	0 / 0.000	0 / 0.280	- / -	- / -	- / -	- / -	- / -	- / -	
Software/Systems Engineering	0 / 28.210	0 / 0.840	0 / 0.980	0 / 0.980	0 / 0.000	0 / 0.980	- / -	- / -	- / -	- / -	- / -	- / -	
Integrated Logistics Support	0 / 38.790	0 / 3.420	0 / 3.990	0 / 3.990	0 / 0.000	0 / 3.990	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 72.047</b>	<b>- / 6.000</b>	<b>- / 7.000</b>	<b>- / 7.000</b>	<b>- / 0.000</b>	<b>- / 7.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
Non-Recurring													
BCP Kit Quantity	62 / 29.435	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
TCS Kit Quantity	17 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Non-Recurring</b>	<b>- / 29.435</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	

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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>										<b>Date: May 2017</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10					<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods					<b>Modification Number / Title:</b> C50700 / PATRIOT MODS			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> Various				<b>Modification Type:</b> Various				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<i>Subtotal: BCP/TCS/CSM</i>	79 / 101.482	0 / 6.000	0 / 7.000	0 / 7.000	0 / 0.000	0 / 7.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 4 of 18: Combined Crypto Modification Phase I (CCMPI)</b>													
A Kits													
Recurring													
Kit Quantity	72 / 23.970	78 / 25.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Kit Quantity (GFE)	0 / 0.268	0 / 0.536	0 / 0.268	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 24.238	- / 25.536	- / 0.268	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Non-Recurring													
Training	0 / 0.132	0 / 0.264	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Non-Recurring</i>	- / 0.132	- / 0.264	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Combined Crypto Modification Phase I (CCMPI)</i>	72 / 24.370	78 / 25.800	0 / 0.268	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 5 of 18: Radar Digital Processor - Configuration (RDP-C)</b>													
A Kits													
Recurring													
Kit Quantity	80 / 240.766	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Fielding	0 / 0.000	0 / 4.000	0 / 4.000	0 / 4.000	0 / 0.000	0 / 4.000	- / -	- / -	- / -	- / -	- / -	- / -	
Support Equipment	0 / 36.942	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 277.708	- / 4.000	- / 4.000	- / 4.000	- / 0.000	- / 4.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Radar Digital Processor - Configuration (RDP-C)</i>	80 / 277.708	0 / 4.000	0 / 4.000	0 / 4.000	0 / 0.000	0 / 4.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 6 of 18: Air Defense Artillery School Upgrades/ TADSS</b>													
A Kits													
Recurring													
Radar Kit Quantity	0 / 0.000	4 / 96.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.000	- / 96.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Air Defense Artillery School Upgrades/ TADSS</i>	0 / 0.000	4 / 96.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 7 of 18: Modern Manstation (MMS)</b>													
A Kits													
Recurring													

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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>										<b>Date: May 2017</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10					<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods					<b>Modification Number / Title:</b> C50700 / PATRIOT MODS			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> Various				<b>Modification Type:</b> Various				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Fielding	0 / 5.525	0 / 2.300	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Support Equipment	0 / 56.567	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 62.092</b>	<b>- / 2.300</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
Non-Recurring													
Kit Quantity	82 / 55.842	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Non-Recurring</b>	<b>- / 55.842</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: Modern Manstation (MMS)</b>	<b>82 / 117.934</b>	<b>0 / 2.300</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Modification Item 8 of 18: Enhanced Launcher Electronics System (ELES)</b>													
A Kits													
Recurring													
Kit Quantity	211 / 34.304	8 / 33.000	58 / 208.000	30 / 119.623	0 / 0.000	30 / 119.623	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 34.304</b>	<b>- / 33.000</b>	<b>- / 208.000</b>	<b>- / 119.623</b>	<b>- / 0.000</b>	<b>- / 119.623</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: Enhanced Launcher Electronics System (ELES)</b>	<b>211 / 34.304</b>	<b>8 / 33.000</b>	<b>58 / 208.000</b>	<b>30 / 119.623</b>	<b>0 / 0.000</b>	<b>30 / 119.623</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Modification Item 9 of 18: SNAP/TROPO</b>													
A Kits													
Recurring													
Kit Quantity SNAP	4 / 0.548	0 / 0.000	2 / 0.282	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Support	0 / 1.799	0 / 0.000	0 / 2.897	0 / 1.115	0 / 0.000	0 / 1.115	- / -	- / -	- / -	- / -	- / -	- / -	
Integrated Logistics Support	0 / 1.048	0 / 0.000	0 / 1.046	0 / 0.633	0 / 0.000	0 / 0.633	- / -	- / -	- / -	- / -	- / -	- / -	
Training	0 / 0.089	0 / 0.000	0 / 0.080	0 / 0.002	0 / 0.000	0 / 0.002	- / -	- / -	- / -	- / -	- / -	- / -	
Equipment	0 / 0.859	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 4.343</b>	<b>- / 0.000</b>	<b>- / 4.305</b>	<b>- / 1.750</b>	<b>- / 0.000</b>	<b>- / 1.750</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
Non-Recurring													
Kit Quantity TROPO	10 / 4.689	0 / 0.000	16 / 8.195	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Non-Recurring</b>	<b>- / 4.689</b>	<b>- / 0.000</b>	<b>- / 8.195</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: SNAP/TROPO</b>	<b>14 / 9.032</b>	<b>0 / 0.000</b>	<b>18 / 12.500</b>	<b>0 / 1.750</b>	<b>0 / 0.000</b>	<b>0 / 1.750</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Modification Item 10 of 18: PATRIOT Maintenance Trainer (PMT)</b>													
A Kits													
Recurring													
Kit Quantity	1 / 15.941	0 / 0.000	1 / 15.000	2 / 27.000	0 / 0.000	2 / 27.000	- / -	- / -	- / -	- / -	- / -	- / -	

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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>										<b>Date: May 2017</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10					<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods					<b>Modification Number / Title:</b> C50700 / PATRIOT MODS			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> Various				<b>Modification Type:</b> Various				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<i>Subtotal: Recurring</i>	- / 15.941	- / 0.000	- / 15.000	- / 27.000	- / 0.000	- / 27.000	- / -	- / -	- / -	- / -	- / -	- / -	
Non-Recurring													
Training Support	0 / 0.000	0 / 4.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / 4.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: PATRIOT Maintenance Trainer (PMT)</i>	1 / 15.941	0 / 4.000	1 / 15.000	2 / 27.000	0 / 0.000	2 / 27.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 11 of 18: PATRIOT Multi-Echelon Training (PMET)</b>													
A Kits													
Recurring													
Kit Quantity	4 / 6.497	4 / 4.383	4 / 5.300	4 / 5.000	0 / 0.000	4 / 5.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 6.497	- / 4.383	- / 5.300	- / 5.000	- / 0.000	- / 5.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: PATRIOT Multi-Echelon Training (PMET)</i>	4 / 6.497	4 / 4.383	4 / 5.300	4 / 5.000	0 / 0.000	4 / 5.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 12 of 18: Reconfigurable Table Top Trainers (RT3)</b>													
A Kits													
Recurring													
Kit Quantity	356 / 13.838	0 / 0.000	34 / 7.500	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 13.838	- / 0.000	- / 7.500	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Reconfigurable Table Top Trainers (RT3)</i>	356 / 13.838	0 / 0.000	34 / 7.500	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 13 of 18: Assured PNT</b>													
A Kits													
Recurring													
Hardware Integration	0 / 0.000	0 / 0.000	798 / 3.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 3.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Assured PNT</i>	0 / 0.000	0 / 0.000	798 / 3.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 14 of 18: Test Detachment</b>													
A Kits													
Recurring													
Equipment	0 / 0.000	0 / 0.000	1 / 49.409	0 / 6.591	0 / 0.000	0 / 6.591	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 49.409	- / 6.591	- / 0.000	- / 6.591	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Test Detachment</i>	0 / 0.000	0 / 0.000	1 / 49.409	0 / 6.591	0 / 0.000	0 / 6.591	- / -	- / -	- / -	- / -	- / -	- / -	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>										<b>Date: May 2017</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10					<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods					<b>Modification Number / Title:</b> C50700 / PATRIOT MODS			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> Various			<b>Modification Type:</b> Various				<b>Related RDT&amp;E PEs:</b>						
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Modification Item 15 of 18: Digital Sidelobe Canceller (DSLCL)</b>													
A Kits													
Recurring													
Kit Quantity	0 / 0.000	0 / 0.000	5 / 12.900	38 / 77.800	0 / 0.000	38 / 77.800	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 12.900	- / 77.800	- / 0.000	- / 77.800	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Digital Sidelobe Canceller (DSLCL)</i>	0 / 0.000	0 / 0.000	5 / 12.900	38 / 77.800	0 / 0.000	38 / 77.800	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 16 of 18: Command Obsolescence Alleviation</b>													
A Kits													
Recurring													
Command Obsolescence Alleviation	0 / 0.000	0 / 0.000	1 / 3.000	0 / 2.000	0 / 0.000	0 / 2.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 3.000	- / 2.000	- / 0.000	- / 2.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Command Obsolescence Alleviation</i>	0 / 0.000	0 / 0.000	1 / 3.000	0 / 2.000	0 / 0.000	0 / 2.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 17 of 18: 35th Brigade Modification Kits</b>													
A Kits													
Non-Recurring													
35th Brigade Mod Kits	0 / 0.000	0 / 0.000	1 / 15.200	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / 0.000	- / 15.200	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: 35th Brigade Modification Kits</i>	0 / 0.000	0 / 0.000	1 / 15.200	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 18 of 18: ADI TPX 57 Obsolescence</b>													
A Kits													
Non-Recurring													
ADI TPX 57 Obsolescence	0 / 0.000	0 / 0.000	1 / 5.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / 0.000	- / 5.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: ADI TPX 57 Obsolescence</i>	0 / 0.000	0 / 0.000	1 / 5.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	7,235 / 1,619.004	205 / 240.683	1,052 / 423.090	206 / 327.473	0 / 0.000	206 / 327.473	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Installation</b>													
<b>Modification Item 1 of 18: RAM Mods</b>	6,324 / 151.613	110 / 0.000	100 / 0.000	251 / 0.000	- / -	251 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Modification Item 2 of 18: Recapitalization</b>	12 / 224.745	1 / 1.000	1 / 0.985	1 / 1.100	- / -	1 / 1.100	- / -	- / -	- / -	- / -	- / -	- / -	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>										<b>Date: May 2017</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10				<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods						<b>Modification Number / Title:</b> C50700 / PATRIOT MODS		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>					
<b>Models of Systems Affected:</b> Various				<b>Modification Type:</b> Various				<b>Related RDT&amp;E PEs:</b>				
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Modification Item 3 of 18:</b> BCP/TCS/CSM	79 / 1,192.582	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 4 of 18:</b> Combined Crypto Modification Phase I (CCMPI)	17 / 0.100	36 / 0.200	59 / 1.232	38 / 0.500	- / -	38 / 0.500	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 5 of 18:</b> Radar Digital Processor - Configuration (RDP-C)	79 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 6 of 18:</b> Air Defense Artillery School Upgrades/ TADSS	0 / 0.000	0 / 0.000	1 / 0.000	3 / 0.000	- / -	3 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 7 of 18:</b> Modern Manstation (MMS)	34 / 0.000	48 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 8 of 18:</b> Enhanced Launcher Electronics System (ELES)	211 / 0.000	0 / 0.000	8 / 0.000	58 / 0.000	- / -	58 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 9 of 18:</b> SNAP/TROPO	14 / 0.000	0 / 0.000	18 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 10 of 18:</b> PATRIOT Maintenance Trainer (PMT)	1 / 0.000	0 / 0.000	1 / 0.000	2 / 0.000	- / -	2 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 11 of 18:</b> PATRIOT Multi-Echelon Training (PMET)	4 / 0.000	4 / 0.000	4 / 0.000	4 / 0.000	- / -	4 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 12 of 18:</b> Reconfigurable Table Top Trainers (RT3)	356 / 0.000	0 / 0.000	0 / 0.000	34 / 0.000	- / -	34 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 13 of 18:</b> Assured PNT	0 / 0.000	0 / 0.000	0 / 0.000	798 / 0.000	- / -	798 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 14 of 18:</b> Test Detachment	0 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 15 of 18:</b> Digital Sidelobe Canceller (DSLCL)	0 / 0.000	0 / 0.000	0 / 0.000	5 / 0.000	- / -	5 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 16 of 18:</b> Command Obsolescence Alleviation	0 / 0.000	0 / 0.000	0 / 0.000	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 17 of 18:</b> 35th Brigade Modification Kits	0 / 0.000	0 / 0.000	0 / 0.000	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 18 of 18:</b> ADI TPX 57 Obsolescence	0 / 0.000	0 / 0.000	0 / 0.000	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	<i>7,131 / 1,569.040</i>	<i>199 / 1.200</i>	<i>194 / 2.217</i>	<i>1,197 / 1.600</i>	<i>- / -</i>	<i>1,197 / 1.600</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<b>Total</b>												
<b>Total Cost (Procurement + Support + Installation)</b>	<b>3,188.044</b>	<b>241.883</b>	<b>425.307</b>	<b>329.073</b>	<b>-</b>	<b>329.073</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 18:** RAM Mods

**Manufacturer Information**

Manufacturer Name: Raytheon	Manufacturer Location: Andover, MA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 14

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Dec 2015	Dec 2016	Dec 2017				
Delivery Dates	Feb 2017	Feb 2018	Feb 2019				

**Installation Information**

**Method of Implementation:** Lead Logistics Fielding Team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	6,324 / 151.613	110 / 0.000	44 / 0.000	131 / 0.000	- / -	131 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	56 / 0.000	54 / 0.000	- / -	54 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	66 / 0.000	- / -	66 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	6,324 / 151.613	110 / 0.000	100 / 0.000	251 / 0.000	- / -	251 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	6,474	21	23	23	22	22	28	28	27	27	33	33	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,320	14,113
Out	6,416	21	21	23	23	22	22	28	28	27	27	33	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,389	14,113



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**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 2 of 18:** Recapitalization

**Manufacturer Information**

Manufacturer Name: Various Manufacturer Location: Various

Administrative Leadtime (in Months): 6 Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Apr 2016	Apr 2017	Apr 2018				
Delivery Dates	Apr 2017	Apr 2018	Apr 2019				

**Installation Information**

**Method of Implementation:** Depot, PM Office, contractor team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	12 / 224.745	1 / 1.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	1 / 0.985	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	1 / 1.100	- / -	1 / 1.100	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	12 / 224.745	1 / 1.000	1 / 0.985	1 / 1.100	- / -	1 / 1.100	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	12	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	30
Out	11	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	30

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 3 of 18:** BCP/TCS/CSM

**Manufacturer Information**

Manufacturer Name: Various Manufacturer Location: Various

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

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** Various

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	79 / 1,192.582	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	79 / 1,192.582	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	79	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	79	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 4 of 18:** Combined Crypto Modification Phase I (CCMPI)

**Manufacturer Information**

Manufacturer Name: Raytheon	Manufacturer Location: Andover, MA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Dec 2015						
Delivery Dates	Dec 2016						

**Installation Information**

**Method of Implementation:** Lead Logistics Fielding Team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	17 / 0.100	20 / 0.100	19 / 0.397	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	16 / 0.100	40 / 0.835	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	38 / 0.500	- / -	38 / 0.500	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	17 / 0.100	36 / 0.200	59 / 1.232	38 / 0.500	- / -	38 / 0.500	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	33	10	10	10	9	20	20	19	19	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	17	8	8	10	10	10	9	20	20	19	19	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 5 of 18:** Radar Digital Processor - Configuration (RDP-C)

**Manufacturer Information**

Manufacturer Name: Raytheon	Manufacturer Location: Andover, MA
Administrative Leadtime (in Months): 8	Production Leadtime (in Months): 20

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** Depot, PM Office, contractor team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	79 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	79 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

PYS	FY 2016	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	5	0	16	15	15	15	4	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	80
Out	-	0	5	0	0	0	16	15	15	15	4	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	80

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 6 of 18:** Air Defense Artillery School Upgrades/ TADSS

**Manufacturer Information**

Manufacturer Name: PM Office, contractor team Manufacturer Location: Various

Administrative Leadtime (in Months): 6 Production Leadtime (in Months): 18

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Mar 2016						
Delivery Dates	Sep 2017						

**Installation Information**

**Method of Implementation:** PM fielding team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	1 / 0.000	3 / 0.000	- / -	3 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	1 / 0.000	3 / 0.000	- / -	3 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	1	1	1	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	0	0	0	0	0	0	0	1	1	1	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 7 of 18:** Modern Manstation (MMS)

**Manufacturer Information**

Manufacturer Name: Raytheon	Manufacturer Location: Andover, MA
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 15

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** Various

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	34 / 0.000	48 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	34 / 0.000	48 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	40	14	14	14	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	34	6	14	14	14	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 8 of 18:** Enhanced Launcher Electronics System (ELES)

**Manufacturer Information**

Manufacturer Name: Various      Manufacturer Location: Various

Administrative Leadtime (in Months): 3      Production Leadtime (in Months): 18

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Dec 2015	Dec 2016	Dec 2017				
Delivery Dates	Jun 2017	Jun 2018	Jun 2019				

**Installation Information**

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

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	211 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	8 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	58 / 0.000	- / -	58 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	211 / 0.000	0 / 0.000	8 / 0.000	58 / 0.000	- / -	58 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	211	0	0	0	0	0	0	8	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	176	453
Out	211	0	0	0	0	0	0	8	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	176	453

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 9 of 18:** SNAP/TROPO

**Manufacturer Information**

Manufacturer Name: TeleCommunication Systems (TCS)	Manufacturer Location: Tampa, FL
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 9

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Oct 2016					
Delivery Dates		Jun 2017					

**Installation Information**

**Method of Implementation:** Depot, PM, contractor team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	14 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	18 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	14 / 0.000	0 / 0.000	18 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	14	0	0	0	0	0	0	18	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	14	0	0	0	0	0	0	0	18	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 10 of 18:** PATRIOT Maintenance Trainer (PMT)

**Manufacturer Information**

Manufacturer Name: Raytheon	Manufacturer Location: Tewksbury, MA
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 4

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Feb 2016	Feb 2017	Feb 2018				
Delivery Dates	Jun 2016	Jun 2017	Jun 2018				

**Installation Information**

**Method of Implementation:** PM Office, contractor team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	2 / 0.000	- / -	2 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.000	0 / 0.000	1 / 0.000	2 / 0.000	- / -	2 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
Out	1	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 11 of 18:** PATRIOT Multi-Echelon Training (PMET)

**Manufacturer Information**

Manufacturer Name: Raytheon				Manufacturer Location: Tewksbury, MA			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 4			
<b>Dates</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates	Feb 2016	Feb 2017	Feb 2018				
Delivery Dates	May 2016	May 2017	May 2018				

**Installation Information**

**Method of Implementation:** PM Office, contractor team

<b>Installation Cost</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	4 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	4 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	4 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	4 / 0.000	- / -	4 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	<b>4 / 0.000</b>	<b>4 / 0.000</b>	<b>4 / 0.000</b>	<b>4 / 0.000</b>	<b>- / -</b>	<b>4 / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>

**Installation Schedule**

	<b>PYS</b>	<b>FY 2016</b>				<b>FY 2017</b>				<b>FY 2018</b>				<b>FY 2019</b>				<b>FY 2020</b>				<b>FY 2021</b>				<b>FY 2022</b>				<b>TC</b>	<b>Tot</b>
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>		
In	4	0	0	4	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	36
Out	4	0	0	4	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	36

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 12 of 18:** Reconfigurable Table Top Trainers (RT3)

**Manufacturer Information**

Manufacturer Name: Raytheon	Manufacturer Location: Tewksbury, MA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 9

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Dec 2016					
Delivery Dates		Oct 2017					

**Installation Information**

**Method of Implementation:** PM Office, contractor team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	356 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	34 / 0.000	- / -	34 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	356 / 0.000	0 / 0.000	0 / 0.000	34 / 0.000	- / -	34 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	356	0	0	0	0	0	0	0	0	9	9	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	229	619
Out	356	0	0	0	0	0	0	0	0	9	9	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	229	619

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 13 of 18:** Assured PNT

**Manufacturer Information**

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 14

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Jan 2017					
Delivery Dates		Mar 2018					

**Installation Information**

**Method of Implementation:** Logistics Fielding Team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	798 / 0.000	- / -	798 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	798 / 0.000	- / -	798 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	798	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	0	0	0	0	0	0	0	0	0	0	798	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 14 of 18:** Test Detachment

**Manufacturer Information**

Manufacturer Name: Various Manufacturer Location: Various

Administrative Leadtime (in Months): 4 Production Leadtime (in Months): 8

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Feb 2017					
Delivery Dates		Sep 2017					

**Installation Information**

**Method of Implementation:** WSMR PM owned test bed personnel

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	1	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	0	0	0	0	0	0	0	1	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 15 of 18:** Digital Sidelobe Cancellor (DSLCL)

**Manufacturer Information**

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 18

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Jan 2017	Jan 2018				
Delivery Dates		Jul 2018	Jul 2019				

**Installation Information**

**Method of Implementation:** Depot, PM Office, contractor team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	5 / 0.000	- / -	5 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	5 / 0.000	- / -	5 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81	86
Out	-	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81	86

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 16 of 18:** Command Obsolescence Alleviation

**Manufacturer Information**

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime (in Months): 8	Production Leadtime (in Months): 5

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Jun 2017					
Delivery Dates		Dec 2017					

**Installation Information**

**Method of Implementation:** PM Office, contractor team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	0	0	0	0	0	0	0	0	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 17 of 18:** 35th Brigade Modification Kits

**Manufacturer Information**

Manufacturer Name: Various Manufacturer Location: Various

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

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Jun 2017					
Delivery Dates		Feb 2018					

**Installation Information**

**Method of Implementation:** WSMR PM owned test bed personnel

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	0	0	0	0	0	0	0	0	0	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		



**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C50700 / Patriot Mods	<b>Modification Number / Title:</b> C50700 / PATRIOT MODS
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 18 of 18:** ADI TPX 57 Obsolescence

**Manufacturer Information**

Manufacturer Name: Various Manufacturer Location: Various

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

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Jun 2017					
Delivery Dates		Dec 2017					

**Installation Information**

**Method of Implementation:** PM Office, Contractor Team

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	1 / 0.000	- / -	1 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	0	0	0	0	0	0	0	0	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	<b>P-1 Line Item Number / Title:</b> CA6700 / ATACMS MODS
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0203802A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	20.119	165.943	116.040	-	116.040	38.417	135.000	135.000	135.000	-	745.519
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	20.119	165.943	116.040	-	116.040	38.417	135.000	135.000	135.000	-	745.519
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	-	<b>20.119</b>	<b>165.943</b>	<b>116.040</b>	-	<b>116.040</b>	<b>38.417</b>	<b>135.000</b>	<b>135.000</b>	<b>135.000</b>	-	<b>745.519</b>

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

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

**Description:**

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 battle field with long-range fires against hard and soft stationary targets in open, complex, and urban environments.

This is the follow-on procurement to the integration and testing program that was funded under Program Element (PE) 0203802A; it will not build any new missiles or add to the overall inventory.

Block (BLK) I/IA missiles currently have warheads (WHs) that are non-compliant with the 2008 Department of Defense (DoD) policy on cluster munitions (CM). The modification will be performed as a Service Life Extension Program (SLEP) and will take expired assets and reset them to a 10 year service life. This effort will replace the existing M74 bomblets with a policy compliant WH, update electronics and propellants. This effort effectively brings the expired inventory back into service, while meeting the DoD CM Policy, to engage targets up to 300 kilometers (km). A Height-of-Burst capability may be introduced under this modification pending test program results under PE 0203802A.

ATACMS modifications will be performed by Lockheed Martin Missiles and Fire Control, Grand Prairie, TX.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications

**P-1 Line Item Number / Title:**  
CA6700 / ATACMS MODS

**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

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	CA6700 / Army Tactical Missile System (ATACMS) Modifications (Unclassified)				- / -	- / 20.119	- / 165.943	- / 116.040	- / -	- / 116.040
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / -	- / 20.119	- / 165.943	- / 116.040	- / -	- / 116.040

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	CA6700 / Army Tactical Missile System (ATACMS) Modifications (Unclassified)				- / -	- / -	- / -	- / -	- / -	- / -
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				- / 38.417	- / 135.000	- / 135.000	- / 135.000	- / -	- / 745.519

\*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:**  
FY18 procurement dollars in the amount of \$116.040 million supports the modification of 121 expired ATACMS and resets their 10 year service life. Additional supporting tasks include bunker storage, Follow-on Production Testing (FPT), Stockpile Reliability Program (SRP), rate tooling, Government System Engineering/Program Management (SEPM), obsolescence, and software.

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

Modification costs in FY18 include components, installation costs, and checkout in the unit price at the time of contract award.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> CA6700 / ATACMS MODS	<b>Modification Number / Title:</b> CA6700 / Army Tactical Missile System (ATACMS) Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	20.119	165.943	116.040	-	116.040	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	20.119	165.943	116.040	-	116.040	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	<b>20.119</b>	<b>165.943</b>	<b>116.040</b>	-	<b>116.040</b>	-	-	-	-	-	-

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

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

**Description:**

Block (BLK) I/IA missiles currently have warheads (WHs) that are non-compliant with the 2008 Department of Defense (DoD) policy on cluster munitions (CM). The modification will be performed as a Service Life Extension Program (SLEP) and will take expired assets and reset them to a 10 year service life. This effort will replace the existing M74 bomblets with a policy compliant WH, update electronics and propellants. This effort effectively brings the expired inventory back into service, while meeting the DoD CM Policy, to engage targets up to 300 kilometers (km). A Height-of-Burst capability may be introduced under this modification pending test program results under PE 0203802A.

This is the follow-on procurement to the integration and testing program that was funded under Program Element (PE) 0203802A; it will not build any new missiles or add to the overall inventory.

Block (BLK) I/IA missiles currently have warheads (WHs) that are non-compliant with the 2008 Department of Defense (DoD) policy on cluster munitions (CM). The modification will be performed as a Service Life Extension Program (SLEP) and will take expired assets and reset them to a 10 year service life. This effort will replace the existing M74 bomblets with a policy compliant WH, update electronics and propellants. This effort effectively brings the expired inventory back into service, while meeting the DoD CM Policy, to engage targets up to 300 kilometers (km). A Height-of-Burst capability may be introduced under this modification pending test program results under PE 0203802A.

ATACMS modifications will be performed by Lockheed Martin Missiles and Fire Control, Grand Prairie, TX.

Modification costs in FY18 include components, installation costs, and checkout in the unit price at the time of contract award.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>											<b>Date: May 2017</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10				<b>P-1 Line Item Number / Title:</b> CA6700 / ATACMS MODS				<b>Modification Number / Title:</b> CA6700 / Army Tactical Missile System (ATACMS) Modifications					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> ATACMS			<b>Modification Type:</b> Unclassified				<b>Related RDT&amp;E PEs:</b>						
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>													
<i>Modification Item 1 of 1:</i> CM Compliant Warhead													
A Kits													
Recurring													
Kit Quantity	0 / 0.000	0 / 0.000	188 / 132.918	121 / 87.588	0 / 0.000	121 / 87.588	- / -	- / -	- / -	- / -	- / -	- / -	
Project Management Admin	0 / 0.000	0 / 2.427	0 / 13.062	0 / 15.280	0 / 0.000	0 / 15.280	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.000	- / 2.427	- / 145.980	- / 102.868	- / 0.000	- / 102.868	- / -	- / -	- / -	- / -	- / -	- / -	
Non-Recurring													
Startup/Tooling	0 / 0.000	0 / 17.692	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / 17.692	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: CM Compliant Warhead</i>	0 / 0.000	0 / 20.119	188 / 145.980	121 / 102.868	0 / 0.000	121 / 102.868	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	0 / 0.000	0 / 20.119	188 / 145.980	121 / 102.868	0 / 0.000	121 / 102.868	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Installation</b>													
<i>Modification Item 1 of 1:</i> CM Compliant Warhead													
	- / -	0 / 0.000	188 / 19.963	121 / 13.172	- / -	121 / 13.172	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Installation</i>	- / -	0 / 0.000	188 / 19.963	121 / 13.172	- / -	121 / 13.172	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Total</b>													
<b>Total Cost (Procurement + Support + Installation)</b>	-	20.119	165.943	116.040	-	116.040	-	-	-	-	-	-	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> CA6700 / ATACMS MODS	<b>Modification Number / Title:</b> CA6700 / Army Tactical Missile System (ATACMS) Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** CM Compliant Warhead

**Manufacturer Information**

Manufacturer Name: Lockheed Martin	Manufacturer Location: Camden, AR
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 15

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Jun 2017	Mar 2018				
Delivery Dates		Dec 2018	Sep 2019				

**Installation Information**

**Method of Implementation:** TBD

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	0 / 0.000	188 / 19.963	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	0 / 0.000	0 / 0.000	121 / 13.172	- / -	121 / 13.172	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	0 / 0.000	188 / 19.963	121 / 13.172	- / -	121 / 13.172	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	188	0	0	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	47	47	47	78	30	30	30	0	0	0	0	0	0	0	0	0	0	0

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification: FY 2018 Army** **Date: May 2017**

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	<b>P-1 Line Item Number / Title:</b> C57701 / GMLRS MOD
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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**Line Item MDAP/MAIS Code: N/A**

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	5.321	0.395	0.531	-	0.531	0.269	15.530	53.182	101.854	19.738	196.820
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	-	5.321	0.395	0.531	-	0.531	0.269	15.530	53.182	101.854	19.738	196.820
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	-	<b>5.321</b>	<b>0.395</b>	<b>0.531</b>	-	<b>0.531</b>	<b>0.269</b>	<b>15.530</b>	<b>53.182</b>	<b>101.854</b>	<b>19.738</b>	<b>196.820</b>

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

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

**Description:**

This modification effort will execute the inventory requirements established in the Total Army Munitions Requirement (TAMR) and will reset the 10 year rocket service life of Guided Multiple Launch Rocket system (GMLRS) rockets into either GMLRS Unitary or GMLRS Alternative Warhead (AW) configurations. It capitalizes on the 90% commonality between GMLRS Unitary and AW variants. The conversion process will include replacement of obsolete guidance sets, proper warhead configuration, and other critical components.

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 consists of three separate increments. GMLRS Purpose Improved Conventional Munition (DPICM) was the first increment. It 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 is the second increment that utilizes a 200 lb high explosive warhead to engage point targets with limited collateral damage. The GMLRS AW rocket is 90% common with the Unitary variant. GMLRS AW is a non-cluster munition developed to replace GMLRS DPICM. The GMLRS AW program entered full rate production in FY15.

The U.S. Army manages all three increments 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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.321	0.395	0.531	-	0.531	0.269	15.530	53.182
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Obligation Authority</b>	<b>5.321</b>	<b>0.395</b>	<b>0.531</b>	<b>-</b>	<b>0.531</b>	<b>0.269</b>	<b>15.530</b>	<b>53.182</b>

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications		<b>P-1 Line Item Number / Title:</b> C57701 / GMLRS MOD
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<b>Justification:</b> FY 2018 Base procurement dollars in the amount of \$0.531 million supports the continuation of the conversion test effort.  In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for the use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.		



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	<b>P-1 Line Item Number / Title:</b> C20000 / Stinger Mods
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0203801A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	202.995	2.216	6.578	63.090	28.000	91.090	66.213	72.220	1.470	3.100	-	445.882
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	202.995	2.216	6.578	63.090	28.000	91.090	66.213	72.220	1.470	3.100	-	445.882
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>202.995</b>	<b>2.216</b>	<b>6.578</b>	<b>63.090</b>	<b>28.000</b>	<b>91.090</b>	<b>66.213</b>	<b>72.220</b>	<b>1.470</b>	<b>3.100</b>	-	<b>445.882</b>

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

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

**Description:**

The Stinger Block I missile is an advanced, fire-and-forget, short-range, man-portable, air defense weapon system. Stinger's mission is to provide the force with low-altitude air defense against fixed and rotary wing aircraft, unmanned aircraft systems (UAS) and cruise missiles (CM). Stinger employs an infrared (heat seeking)/ultraviolet seeker to guide to the target. Stinger Block I has extensive infrared counter-countermeasure capabilities and can engage targets from any aspect to include head-on. The missile utilizes a high-explosive, hit-to-kill warhead. Stinger can be fired from the shoulder or from a variety of platforms to include vehicles, helicopters and UAS. The missile is delivered as a certified round and requires no field testing or maintenance. The Service Life Extension Program (SLEP) extends the life of the Stinger Block I missile up to 10 years by providing a more viable asset to the Army's inventory. The addition of a target detection device (TDD) to the current fuze will provide proximity capability and improved effectiveness against UAS threats, eliminating the need for "hit to kill".

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	2.216	6.578	63.090	28.000	91.090	66.213	72.220	1.470	3.100
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	2.216	6.578	63.090	28.000	91.090	66.213	72.220	1.470	3.100

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications

**P-1 Line Item Number / Title:**  
C20000 / Stinger Mods

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203801A

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

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	C21300 / Stinger Service Life Extension Program (SLEP) (TBD)				- / 202.995	- / 2.216	- / 6.578	- / 63.090	- / 28.000	- / 91.090
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 202.995</b>	<b>- / 2.216</b>	<b>- / 6.578</b>	<b>- / 63.090</b>	<b>- / 28.000</b>	<b>- / 91.090</b>

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	C21300 / Stinger Service Life Extension Program (SLEP) (TBD)				- / -	- / -	- / -	- / -	- / -	- / -
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 66.213</b>	<b>- / 72.220</b>	<b>- / 1.470</b>	<b>- / 3.100</b>	<b>- / -</b>	<b>- / 445.882</b>

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

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

**Justification:**  
 FY18 Base funding in the amount of \$63.090 million supports the Service Life Extension Program (SLEP) of an additional 1,147 missiles.  
 FY18 OCO funding in the amount of \$28.000 million supports the European Reassurance Initiative (ERI) requirement for Stinger Block 1 Missiles. The Army and ERI Stinger Block 1 Missiles (Qty 576) will undergo the current Stinger SLEP to include the integration of the Proximity Fuze.  
 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.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C20000 / Stinger Mods	<b>Modification Number / Title:</b> C21300 / Stinger Service Life Extension Program (SLEP)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	202.995	2.216	6.578	63.090	28.000	91.090	-	-	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	202.995	2.216	6.578	63.090	28.000	91.090	-	-	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>202.995</b>	<b>2.216</b>	<b>6.578</b>	<b>63.090</b>	<b>28.000</b>	<b>91.090</b>	-	-	-	-	-	-

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

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

**Description:**

The Stinger Block I missile is an advanced, fire-and-forget, short-range, man-portable, air defense weapon system. Stinger's mission is to provide the force with low-altitude air defense against fixed and rotary wing aircraft, unmanned aircraft systems (UAS) and cruise missiles (CM). Stinger employs an infrared (heat seeking)/ultraviolet seeker to guide to the target. Stinger Block I has extensive infrared counter-countermeasure capabilities and can engage targets from any aspect to include head-on. The missile utilizes a high-explosive, hit-to-kill warhead. Stinger can be fired from the shoulder or from a variety of platforms to include vehicles, helicopters and UAS. The missile is delivered as a certified round and requires no field testing or maintenance. The Service Life Extension Program (SLEP) extends the life of the Stinger Block I missile up to 10 years by providing a more viable asset to the Army's inventory. The addition of a target detection device (TDD) to the current fuze will provide proximity capability and improved effectiveness against UAS threats, eliminating the need for "hit to kill".

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	2.216	6.578	63.090	28.000	91.090	-	-	-	-
<b>Total: Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	2.216	6.578	63.090	28.000	91.090	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C20000 / Stinger Mods	<b>Modification Number / Title:</b> C21300 / Stinger Service Life Extension Program (SLEP)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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<b>Models of Systems Affected:</b> FIM-92E Stinger Block I Missile	<b>Modification Type:</b> TBD	<b>Related RDT&amp;E PEs:</b>
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Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

**Procurement**

<i>Modification Item 1 of 1: Stinger Service Life Extension Program (SLEP)</i>												
A Kits												
Recurring												
Hardware	850 / 196.085	0 / 0.000	119 / 5.863	1,147 / 56.233	576 / 24.121	1,723 / 80.354	- / -	- / -	- / -	- / -	- / -	- / -
Engineering Services	0 / 0.762	0 / 0.489	0 / 0.132	0 / 1.261	0 / 1.109	0 / 2.370	- / -	- / -	- / -	- / -	- / -	- / -
Govt PM/Admin Support	0 / 1.651	0 / 0.381	0 / 0.197	0 / 1.893	0 / 0.831	0 / 2.724	- / -	- / -	- / -	- / -	- / -	- / -
Other Flyaway Support	0 / 4.497	0 / 1.023	0 / 0.329	0 / 3.155	0 / 1.664	0 / 4.819	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	<i>- / 202.995</i>	<i>- / 1.893</i>	<i>- / 6.521</i>	<i>- / 62.542</i>	<i>- / 27.725</i>	<i>- / 90.267</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: Stinger Service Life Extension Program (SLEP)</i>	<i>850 / 202.995</i>	<i>0 / 1.893</i>	<i>119 / 6.521</i>	<i>1,147 / 62.542</i>	<i>576 / 27.725</i>	<i>1,723 / 90.267</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>850 / 202.995</i>	<i>0 / 1.893</i>	<i>119 / 6.521</i>	<i>1,147 / 62.542</i>	<i>576 / 27.725</i>	<i>1,723 / 90.267</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>

**Installation**

<i>Modification Item 1 of 1: Stinger Service Life Extension Program (SLEP)</i>												
	0 / 0.000	850 / 0.323	119 / 0.057	1,147 / 0.548	576 / 0.275	1,723 / 0.823	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	<i>0 / 0.000</i>	<i>850 / 0.323</i>	<i>119 / 0.057</i>	<i>1,147 / 0.548</i>	<i>576 / 0.275</i>	<i>1,723 / 0.823</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>

<b>Total</b>												
<b>Total Cost (Procurement + Support + Installation)</b>	<b>202.995</b>	<b>2.216</b>	<b>6.578</b>	<b>63.090</b>	<b>28.000</b>	<b>91.090</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C20000 / Stinger Mods	<b>Modification Number / Title:</b> C21300 / Stinger Service Life Extension Program (SLEP)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 1:** Stinger Service Life Extension Program (SLEP)

**Manufacturer Information**

Manufacturer Name: McAlester Army Ammunition Plant	Manufacturer Location: McAlester, OK
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 21

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Jan 2014	Jun 2017	Oct 2017				
Delivery Dates	Oct 2015	Jul 2018	Nov 2018				

**Installation Information**

**Method of Implementation:** Depot Upgrade

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	850 / 0.323	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	119 / 0.057	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	1,147 / 0.548	576 / 0.275	1,723 / 0.823	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	850 / 0.323	119 / 0.057	1,147 / 0.548	576 / 0.275	1,723 / 0.823	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	850	0	0	0	0	0	0	59	60	287	287	287	286	240	336	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,692
Out	425	425	0	0	0	0	0	59	60	287	287	287	286	240	336	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,692

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications

**P-1 Line Item Number / Title:**  
CE8710 / AVENGER MODS

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

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

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	56.334	6.171	35.979	62.931	-	62.931	31.434	14.377	14.304	11.452	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	56.334	6.171	35.979	62.931	-	62.931	31.434	14.377	14.304	11.452	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>56.334</b>	<b>6.171</b>	<b>35.979</b>	<b>62.931</b>	-	<b>62.931</b>	<b>31.434</b>	<b>14.377</b>	<b>14.304</b>	<b>11.452</b>	<b>Continuing</b>	<b>Continuing</b>

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

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

**Description:**

The Avenger Air Defense System is a lightweight, highly mobile surface-to-air missile and gun weapon system mounted on a High Mobility Multi-purpose Wheeled Vehicle (HMMWV). The system employs a canopied turret consisting of a gunner position, two gyro-stabilized missile launcher pods containing four Stinger missiles each, a Forward Looking Infrared Receiver (FLIR), a Laser Range Finder (LRF), an Identification, Friend or Foe (IFF) system and a very high rate of fire .50 caliber machine gun (M3P). The gun system is used against ground targets and to cover the Stinger missile dead-zone. Avenger is capable of day/night and adverse weather conditions; can be transported by UH-60L Blackhawk helicopter or C-130 aircraft; is air-droppable and can shoot on the move. The system can also be operated by remote control from a protected position up to 50 meters away from the fire unit.

The Avenger system is operated by a two-man crew and is used to counter Unmanned Aerial Systems (UASs), cruise missiles, and fixed wing/rotary wing aircraft. Avenger fills the line-of-sight rear component of the Forward Area Air Defense (FAAD) system. Funds procurement portion of Avenger Modification program to maintain system relevance in a configuration that is sustainable against multiple threats through FY2031. The Avenger Modification program keeps Avenger sustainable and relevant until replaced by the Indirect Fire Protection Capability Increment 2-Intercept (IFPC Inc 2-I) solution which will be fully fielded in FY31.

The Targeting Console (TC) is a required subsystem that provides the gunner with information and controls necessary to carry out the short range Air Defense Mission. The current Targeting Console is not supportable beyond FY18. This program will fund replacement and upgrade of the TC on the Slew-to-cue (STC) units that will be able to handle the increased targeting capability realized with the latest version of the FAAD early warning network.

The M3P.50 CAL machine gun is required to provide the Avenger crew with self-protection inside of the missile dead zone coverage. The M3Ps currently fielded to Air Defense Artillery (ADA) units are not supportable through FY31. This program will allow for the procurement of new M3Ps to ensure that Avenger units maintain their self-protection capability until a replacement system is fielded.

The Vehicle Internal Communications (VIC) System is a required subsystem that allows communication between the gunner and driver. It also interfaces with the Identification Friend or Foe (IFF) and missile electronics resulting in improved IFF capabilities. The updated VIC replaces the Voice Intercom System I (AN/VIC-I) 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 FY31. The AFCC-Revised (AFCC-R) will replace the current AFCC. The Avenger Fire Control Computer-Revised (AFCC-R) will undergo software and hardware upgrades that will enable the system to handle

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications		<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS

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

increased targeting capability realized with the latest version of the Forward Area Air Defense (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 compromised Mode 4 which will no longer be supported beyond 2020. 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.

The Environmental Control Unit/Prime Power Unit (ECU/PPU) is a required subsystem that provides turret air conditioning/heating and provides a separate backup power source in lieu of vehicle battery power. The ECU/PPU removes restrictions on operational use of Avenger in hot climates. This modification fulfills the user requirement for a separate, reliable power source and for heat and air conditioning to fully operate in a broad spectrum of combat environments (i.e., desert).

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.171	35.979	62.931	-	62.931	31.434	14.377	14.304	11.452
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
	<b>Total Obligation Authority</b>	<b>6.171</b>	<b>35.979</b>	<b>62.931</b>	-	<b>62.931</b>	<b>31.434</b>	<b>14.377</b>	<b>14.304</b>	<b>11.452</b>

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications

**P-1 Line Item Number / Title:**  
CE8710 / AVENGER MODS

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

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

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	CE8710 / Avenger Modification (Operational)				- / 56.334	- / 6.171	- / 35.979	- / 62.931	- / -	- / 62.931
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 56.334</b>	<b>- / 6.171</b>	<b>- / 35.979</b>	<b>- / 62.931</b>	<b>- / -</b>	<b>- / 62.931</b>

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	CE8710 / Avenger Modification (Operational)				- / -	- / -	- / -	- / -	- / -	- / -
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 31.434</b>	<b>- / 14.377</b>	<b>- / 14.304</b>	<b>- / 11.452</b>	<b>Continuing</b>	<b>Continuing</b>

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

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

**Justification:**  
FY 2018 procurement dollars in the amount of \$62.931 million support the acquisition of components of the Avenger modification program. These funds procure updated Avenger Line Replaceable Units (LRUs) to ensure that Avenger is viable and sustainable through the Fiscal Year (FY) 2031 timeframe when Avenger leaves the force.

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.



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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS	<b>Modification Number / Title:</b> CE8710 / Avenger Modification

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	56.334	6.171	35.979	62.931	-	62.931	-	-	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	56.334	6.171	35.979	62.931	-	62.931	-	-	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>56.334</b>	<b>6.171</b>	<b>35.979</b>	<b>62.931</b>	-	<b>62.931</b>	-	-	-	-	-	-

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

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

**Description:**

The Avenger Modification program keeps Avenger sustainable and relevant until replaced by the Indirect Fire Protection Capability Increment 2- Intercept (IFPC Inc 2-I) solution which will be fully fielded in FY31. The Avenger Fire Control Computer (AFCC) will undergo software and hardware upgrades that will enable the system to handle increased targeting capability realized with the latest version of the Forward Area Air Defense (FAAD) early warning system and ensure the system meets the latest Information Assurance (IA) requirements. The Vehicle Internal Communications (VIC) system will be upgraded from analog to digital. Mode 5 IFF cooperative target identification functions will be added to improve the system IFF capabilities. New targeting consoles will be placed on the Slew-to-cue (STC) Avengers only. Newly redesigned components of the Environmental Control Unit/Prime Power Units (ECU/PPU) will be procured for all Active components.

These funds are provided to procure updated Avenger Line Replaceable Units (LRUs) to ensure that Avenger is viable and sustainable until Avenger leaves the force in the Fiscal Year (FY) 2031 timeframe. Army Avengers.

<b>Secondary Distribution</b>		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.171	35.979	62.931	-	62.931	-	-	-	-
<b>Total:</b> Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.171	35.979	62.931	-	62.931	-	-	-	-

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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>											<b>Date: May 2017</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10				<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS				<b>Modification Number / Title:</b> CE8710 / Avenger Modification				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>					
<b>Models of Systems Affected:</b> Avenger Basic and Slew-to-Cue Systems			<b>Modification Type:</b> Operational				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Procurement</b>												
<b>Modification Item 1 of 7: Prior Modifications</b>												
A Kits												
Recurring												
Prior Year Modifications	170 / 48.694	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Subtotal: Recurring</b>	<b>- / 48.694</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Subtotal: Prior Modifications</b>	<b>170 / 48.694</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Modification Item 2 of 7: M3P Machine Gun</b>												
A Kits												
Recurring												
Equipment	0 / 0.000	126 / 5.531	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Spares/Repair Parts	0 / 0.000	0 / 0.187	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Engineering Services	0 / 0.000	0 / 0.062	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
System Engineering/Program Management	0 / 0.000	0 / 0.338	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Subtotal: Recurring</b>	<b>- / 0.000</b>	<b>- / 6.118</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Subtotal: M3P Machine Gun</b>	<b>0 / 0.000</b>	<b>126 / 6.118</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Modification Item 3 of 7: Voice Intercommunication System</b>												
A Kits												
Recurring												
Equipment	0 / 0.000	0 / 0.000	0 / 0.000	196 / 4.371	0 / 0.000	196 / 4.371	- / -	- / -	- / -	- / -	- / -	- / -
Spares/Repair Parts	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.907	0 / 0.000	0 / 0.907	- / -	- / -	- / -	- / -	- / -	- / -
Transportation	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.082	0 / 0.000	0 / 0.082	- / -	- / -	- / -	- / -	- / -	- / -
New Equipment Training	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.742	0 / 0.000	0 / 0.742	- / -	- / -	- / -	- / -	- / -	- / -
Engineering Services	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.155	0 / 0.000	0 / 1.155	- / -	- / -	- / -	- / -	- / -	- / -
System Engineering/Program Management	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.990	0 / 0.000	0 / 0.990	- / -	- / -	- / -	- / -	- / -	- / -
<b>Subtotal: Recurring</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 8.247</b>	<b>- / 0.000</b>	<b>- / 8.247</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Subtotal: Voice Intercommunication System</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>196 / 8.247</b>	<b>0 / 0.000</b>	<b>196 / 8.247</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Modification Item 4 of 7: Avenger Fire Control Computer</b>												
A Kits												

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>										<b>Date: May 2017</b>				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10					<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS					<b>Modification Number / Title:</b> CE8710 / Avenger Modification				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>							
<b>Models of Systems Affected:</b> Avenger Basic and Slew-to-Cue Systems				<b>Modification Type:</b> Operational				<b>Related RDT&amp;E PEs:</b>						
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total		
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)		
<b>Recurring</b>														
Equipment	0 / 0.000	0 / 0.000	0 / 0.000	170 / 15.851	0 / 0.000	170 / 15.851	- / -	- / -	- / -	- / -	- / -	- / -		
Spares/Repair Parts	0 / 0.000	0 / 0.000	0 / 0.000	0 / 2.033	0 / 0.000	0 / 2.033	- / -	- / -	- / -	- / -	- / -	- / -		
Transportation	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.695	0 / 0.000	0 / 0.695	- / -	- / -	- / -	- / -	- / -	- / -		
Engineering Services	0 / 0.000	0 / 0.000	0 / 0.000	0 / 3.512	0 / 0.000	0 / 3.512	- / -	- / -	- / -	- / -	- / -	- / -		
System Engineering/Program Management	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.674	0 / 0.000	0 / 1.674	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Subtotal: Recurring</b>	- / 0.000	- / 0.000	- / 0.000	- / 23.765	- / 0.000	- / 23.765	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Subtotal: Avenger Fire Control Computer</b>	0 / 0.000	0 / 0.000	0 / 0.000	170 / 23.765	0 / 0.000	170 / 23.765	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Modification Item 5 of 7: Mode 5/Identification Friend or Foe</b>														
<b>A Kits</b>														
<b>Recurring</b>														
Equipment	0 / 0.000	0 / 0.000	131 / 29.464	161 / 16.849	0 / 0.000	161 / 16.849	- / -	- / -	- / -	- / -	- / -	- / -		
Spares/Repair Parts	0 / 0.000	0 / 0.000	0 / 1.216	0 / 0.789	0 / 0.000	0 / 0.789	- / -	- / -	- / -	- / -	- / -	- / -		
Transportation	0 / 0.000	0 / 0.000	0 / 0.231	0 / 0.141	0 / 0.000	0 / 0.141	- / -	- / -	- / -	- / -	- / -	- / -		
New Equipment Training	0 / 0.000	0 / 0.000	0 / 0.000	0 / 2.751	0 / 0.000	0 / 2.751	- / -	- / -	- / -	- / -	- / -	- / -		
Engineering Services	0 / 0.000	0 / 0.000	0 / 1.277	0 / 1.047	0 / 0.000	0 / 1.047	- / -	- / -	- / -	- / -	- / -	- / -		
System Engineering/Program Management	0 / 0.000	0 / 0.000	0 / 2.173	0 / 3.508	0 / 0.000	0 / 3.508	- / -	- / -	- / -	- / -	- / -	- / -		
Systems Engineering	0 / 0.000	0 / 0.000	0 / 0.278	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Subtotal: Recurring</b>	- / 0.000	- / 0.000	- / 34.639	- / 25.085	- / 0.000	- / 25.085	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Subtotal: Mode 5/Identification Friend or Foe</b>	0 / 0.000	0 / 0.000	131 / 34.639	161 / 25.085	0 / 0.000	161 / 25.085	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Modification Item 6 of 7: Targeting Console</b>														
<b>A Kits</b>														
<b>Recurring</b>														
Equipment	170 / 4.077	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Spares/Repair Parts	0 / 0.182	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
New Equipment Training	0 / 0.022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Engineering Services	0 / 0.441	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
System Engineering/Program Management	0 / 0.889	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Subtotal: Recurring</b>	- / 5.611	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Subtotal: Targeting Console</b>	170 / 5.611	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		

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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>											<b>Date: May 2017</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10				<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS				<b>Modification Number / Title:</b> CE8710 / Avenger Modification				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>					
<b>Models of Systems Affected:</b> Avenger Basic and Slew-to-Cue Systems			<b>Modification Type:</b> Operational				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Modification Item 7 of 7: Environmental Control Unit/ Prime Power Unit</b>												
A Kits												
Recurring												
Equipment	0 / 0.000	0 / 0.000	0 / 0.000	126 / 1.043	0 / 0.000	126 / 1.043	- / -	- / -	- / -	- / -	- / -	- / -
Spares/Repair Parts	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.168	0 / 0.000	0 / 0.168	- / -	- / -	- / -	- / -	- / -	- / -
Transportation	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.108	0 / 0.000	0 / 0.108	- / -	- / -	- / -	- / -	- / -	- / -
New Equipment Training	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.241	0 / 0.000	0 / 0.241	- / -	- / -	- / -	- / -	- / -	- / -
Engineering Services	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.021	0 / 0.000	0 / 0.021	- / -	- / -	- / -	- / -	- / -	- / -
System Engineering/Program Management	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.387	0 / 0.000	0 / 0.387	- / -	- / -	- / -	- / -	- / -	- / -
<b>Subtotal: Recurring</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 1.968</b>	<b>- / 0.000</b>	<b>- / 1.968</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Subtotal: Environmental Control Unit/Prime Power Unit</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>126 / 1.968</b>	<b>0 / 0.000</b>	<b>126 / 1.968</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Subtotal: Procurement, All Modification Items</b>	<b>340 / 54.305</b>	<b>126 / 6.118</b>	<b>131 / 34.639</b>	<b>653 / 59.065</b>	<b>0 / 0.000</b>	<b>653 / 59.065</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Installation</b>												
<b>Modification Item 1 of 7: Prior Modifications</b>	170 / 2.029	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 2 of 7: M3P Machine Gun</b>	0 / 0.000	126 / 0.037	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 3 of 7: Voice Intercommunication System</b>	0 / 0.000	0 / 0.000	0 / 0.000	196 / 0.344	- / -	196 / 0.344	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 4 of 7: Avenger Fire Control Computer</b>	0 / 0.000	0 / 0.000	0 / 0.000	170 / 1.190	- / -	170 / 1.190	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 5 of 7: Mode 5/Identification Friend or Foe</b>	0 / 0.000	0 / 0.000	131 / 1.340	161 / 1.690	- / -	161 / 1.690	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 6 of 7: Targeting Console</b>	0 / 0.000	170 / 0.016	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<b>Modification Item 7 of 7: Environmental Control Unit/ Prime Power Unit</b>	0 / 0.000	0 / 0.000	0 / 0.000	126 / 0.642	- / -	126 / 0.642	- / -	- / -	- / -	- / -	- / -	- / -
<b>Subtotal: Installation</b>	<b>170 / 2.029</b>	<b>296 / 0.053</b>	<b>131 / 1.340</b>	<b>653 / 3.866</b>	<b>- / -</b>	<b>653 / 3.866</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>
<b>Total</b>												
<b>Total Cost (Procurement + Support + Installation)</b>	<b>56.334</b>	<b>6.171</b>	<b>35.979</b>	<b>62.931</b>	<b>-</b>	<b>62.931</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS	<b>Modification Number / Title:</b> CE8710 / Avenger Modification
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 1 of 7:** Prior Modifications

**Manufacturer Information**

Manufacturer Name: Not Applicable Manufacturer Location: Not Applicable

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

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** Not Applicable

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	170 / 2.029	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	170 / 2.029	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	170	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	170	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS	<b>Modification Number / Title:</b> CE8710 / Avenger Modification
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 2 of 7:** M3P Machine Gun

**Manufacturer Information**

Manufacturer Name: FN Herstal Manufacturer Location: Virginia, South Carolina

Administrative Leadtime (in Months): 1 Production Leadtime (in Months): 5

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Feb 2016					
Delivery Dates		Sep 2016					

**Installation Information**

**Method of Implementation:** Replacement in Field

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	126 / 0.037	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	126 / 0.037	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	126	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	0	0	0	126	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS	<b>Modification Number / Title:</b> CE8710 / Avenger Modification

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 3 of 7:** Voice Intercommunication System

**Manufacturer Information**

Manufacturer Name: CECOM Managed Item				Manufacturer Location: Tobyhanna, PA			
Administrative Leadtime (in Months): 1				Production Leadtime (in Months): 9			
<b>Dates</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Contract Dates			Aug 2018				
Delivery Dates			May 2019				

**Installation Information**

**Method of Implementation:** Contractor Field Service Representative (CFSR) Installation

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	196 / 0.344	- / -	196 / 0.344	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	196 / 0.344	- / -	196 / 0.344	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	0	98	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	197	393
Out	-	0	0	0	0	0	0	0	0	0	0	0	98	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	197	393

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS	<b>Modification Number / Title:</b> CE8710 / Avenger Modification

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 4 of 7:** Avenger Fire Control Computer

**Manufacturer Information**

Manufacturer Name: Boeing	Manufacturer Location: Everett, Washington
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 9

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates			Nov 2017				
Delivery Dates			Jul 2018				

**Installation Information**

**Method of Implementation:** Integration and Installation in the Field

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	170 / 1.190	- / -	170 / 1.190	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	170 / 1.190	- / -	170 / 1.190	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	0	80	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	-	0	0	0	0	0	0	0	0	0	0	0	80	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS	<b>Modification Number / Title:</b> CE8710 / Avenger Modification

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 5 of 7:** Mode 5/Identification Friend or Foe

**Manufacturer Information**

Manufacturer Name: Boeing	Manufacturer Location: Everett, Washington
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 5

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Jan 2017	Nov 2017				
Delivery Dates		May 2017	Apr 2018				

**Installation Information**

**Method of Implementation:** Contractor Field Service Representative (CFSR) Installation

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	131 / 1.340	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	161 / 1.690	- / -	161 / 1.690	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	131 / 1.340	161 / 1.690	- / -	161 / 1.690	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	66	65	0	0	81	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101	393
Out	-	0	0	0	0	0	0	66	65	0	0	81	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101	393

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date: May 2017</b>
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS	<b>Modification Number / Title:</b> CE8710 / Avenger Modification

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 6 of 7:** Targeting Console

**Manufacturer Information**

Manufacturer Name: Barco	Manufacturer Location: Rancho Cordova, California
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 15

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates	Sep 2016						

**Installation Information**

**Method of Implementation:** Contractor Field Service Representative (CFSR) Installation

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	170 / 0.016	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	170 / 0.016	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	170	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	0	0	0	170	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> CE8710 / AVENGER MODS	<b>Modification Number / Title:</b> CE8710 / Avenger Modification
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**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Modification Item 7 of 7:** Environmental Control Unit/Prime Power Unit

**Manufacturer Information**

Manufacturer Name: AWCf Managed Item- Marvin Land Systems Manufacturer Location: Inglewood, CA

Administrative Leadtime (in Months): 4 Production Leadtime (in Months): 5

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates			Mar 2018				
Delivery Dates			Aug 2018				

**Installation Information**

**Method of Implementation:** Contractor Field Service Representative (CFSR) Installation

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	126 / 0.642	- / -	126 / 0.642	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	126 / 0.642	- / -	126 / 0.642	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	0	126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	0	0	0	0	0	0	0	0	0	0	0	126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification: FY 2018 Army** **Date: May 2017**

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	<b>P-1 Line Item Number / Title:</b> C61700 / ITAS/TOW Mods
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	306	306	-	-	-	-	-	-	-	-	-	612
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,769.375	19.576	0.383	3.500	-	3.500	3.200	3.500	3.200	2.400	-	1,805.134
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,769.375	19.576	0.383	3.500	-	3.500	3.200	3.500	3.200	2.400	-	1,805.134
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>1,769.375</b>	<b>19.576</b>	<b>0.383</b>	<b>3.500</b>	<b>-</b>	<b>3.500</b>	<b>3.200</b>	<b>3.500</b>	<b>3.200</b>	<b>2.400</b>	<b>-</b>	<b>1,805.134</b>

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

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	5,782.271	63.974	-	-	-	-	-	-	-	-	-	2,949.565

**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. The ITAS Image Enhancement (IE) Modification Kit reduces operator workload by optimizing the image presented to the gunner through electronic processing. Electronic focus, image stabilization, and other processing techniques ensure that the image presented is optimized for the environment without manual manipulation of the various adjustment settings. This reduces the operations required by the gunner to achieve a consistent high quality image, reduces the time required to identify and engage targets on the battlefield. ITAS continues to be the weapon of choice in precision combat engagements.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	306	-	-	-	-	-	-	-	-
Total Obligation Authority	5.902	0.383	3.500	-	3.500	3.200	3.500	3.200	2.400
ANG									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	13.160	-	-	-	-	-	-	-	-
AR									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	0.514	-	-	-	-	-	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity 306</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Obligation Authority</b>	<b>19.576</b>	<b>0.383</b>	<b>3.500</b>	<b>-</b>	<b>3.500</b>	<b>3.200</b>	<b>3.500</b>	<b>3.200</b>	<b>2.400</b>

**Justification:**

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications		<b>P-1 Line Item Number / Title:</b> C61700 / ITAS/TOW Mods
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
FY2018 Base Procurement dollars in the amount of \$3.500 million supports procurement of 26 Image Enhancement Kits, required subcomponents, the fielding of the kits and subcomponents, and program management support 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.		
In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification: FY 2018 Army** **Date: May 2017**

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	<b>P-1 Line Item Number / Title:</b> C67500 / MLRS Mods
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0603778A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	407.781	35.970	34.704	138.235	-	138.235	102.208	171.898	167.960	71.328	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	407.781	35.970	34.704	138.235	-	138.235	102.208	171.898	167.960	71.328	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>407.781</b>	<b>35.970</b>	<b>34.704</b>	<b>138.235</b>	<b>-</b>	<b>138.235</b>	<b>102.208</b>	<b>171.898</b>	<b>167.960</b>	<b>71.328</b>	<b>Continuing</b>	<b>Continuing</b>

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

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

**Description:**

The Multiple Launch Rocket System (MLRS) launcher (M270A1) 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, counter-fire, 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 Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM), to include the Guided Multiple Launch Rocket System (GMLRS) and the Army Tactical Missile System (ATACMS). These munitions are capable of engaging targets with precision at ranges up to 300 kilometers.

In FY2017, the Army decided to extend the operational life of the MLRS fleet until FY2050 or beyond and increase the size of the MLRS fleet by 160 launchers via Fleet Expansion. Fleet Expansion conducts carrier modifications to existing M270A0s and integrates the Improved Armored Cab and the FCS Mod Kit solution to build a M270A2 configured launcher. This decision to increase the fleet's life by more than 20 years drives numerous obsolescence mitigation, technology refresh, and future recapitalization activities of the launcher fleet beginning in FY2019. MLRS Mods address obsolescence mitigation and other design modifications via design, production, and implementation of Modification Kits to the MLRS fleet and supports Fleet Expansion through commonality with the Bradley platform.

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 application of the IAC Modification Kit to a M270A1, the launcher permanently becomes a M270A2. First Unit Equipped (FUE) for M270A2 is projected for FY2021.

The next generation Fire Control System (FCS) eliminates obsolescence of the fielded M270A1 Improved Fire Control System (IFCS). First Unit Equipped (FUE) for an interim FCS solution is projected for FY2021. This system addresses the accelerated requirements associated with MLRS Fleet Expansion. FUE for the follow-on/long-term FCS Mod Kit solution, to include M-Code incorporation, is projected for FY2024. Benefits include a simplified design and increased reliability to reduce long-term operation & sustainment cost. Additionally, the capability to launch future munitions, such as GMLRS Insensitive Munitions Propulsion System (IMPS) missiles entering production, is enabled by this hardware upgrade, and associated organic tactical software, on a MLRS launcher. The government assumed responsibility for software development and maintenance from the prime contractor in FY2016. Organic software is defined as government developed, maintained, and owned software. The technology refresh enables capability to transition from legacy tactical software to current organic tactical software of the launcher.

Army Acquisition Objective is 225 MLRS launchers. 222 physical MLRS launchers remain within the fleet.

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Army							<b>Date:</b> May 2017			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications					<b>P-1 Line Item Number / Title:</b> C67500 / MLRS Mods					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):			<b>Program Elements for Code B Items:</b> N/A			<b>Other Related Program Elements:</b> 0603778A				
<b>Line Item MDAP/MAIS Code:</b> N/A										

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	24	23	-
	Total Obligation Authority	35.970	34.704	138.235	-	138.235	102.208	171.898	167.960	60.242
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	-	-	11.086
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-	-	<b>24</b>	<b>23</b>	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>35.970</b>	<b>34.704</b>	<b>138.235</b>	-	<b>138.235</b>	<b>102.208</b>	<b>171.898</b>	<b>167.960</b>	<b>71.328</b>

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications **P-1 Line Item Number / Title:** C67500 / MLRS Mods

**ID Code** (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603778A

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

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	C67500 / Multiple Launch Rocket System (MLRS) Modifications (.)				- / 407.781	- / 35.970	- / 34.704	- / 138.235	- / -	- / 138.235
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 407.781</b>	<b>- / 35.970</b>	<b>- / 34.704</b>	<b>- / 138.235</b>	<b>- / -</b>	<b>- / 138.235</b>

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	C67500 / Multiple Launch Rocket System (MLRS) Modifications (.)				- / -	- / -	- / -	- / -	- / -	- / -
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 102.208</b>	<b>- / 171.898</b>	<b>- / 167.960</b>	<b>- / 71.328</b>	<b>Continuing</b>	<b>Continuing</b>

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

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

**Justification:**  
 FY2018 Base procurement dollars in the amount of \$138.235 million support Improved Armored Cab (IAC) Modification Kit production, Non-Recurring Engineering design of the next generation Fire Control System (FCS) Modification Kit, MLRS Fleet Expansion, and routine obsolescence mitigation of the M270 Multiple Launch Rocket System (MLRS) launcher design to retain the ability for long-term sustainment of the MLRS launcher fleet.

The IAC Modification Kit contract Option 1 will produce 76 IAC Modification Kits. IAC development completed in FY2016 and the IAC Request for Proposal (RFP) was released in July 2016. Contract award is anticipated in 4QFY2017 for Production Verification Units and 3QFY18 for Option 1.

The Non-Recurring Engineering of the interim next generation FCS Modification Kit is on-track to complete by the end of FY2019. The FCS is a required upgrade for the M270A1 to eliminate obsolescence. The FCS also enables future munition support, such as the GMLRS Insensitive Munitions Propulsion System (IMPS) missile beginning production, and serves as a key hardware enabler for future transition to organic tactical launcher software. Non-recurring engineering efforts for the M993 carrier addresses numerous mechanical and technical obsolescence issues within the M993 carrier power train used on the MLRS system. The mitigation will increase commonality with the Bradley platform (configuration manager of the M993 carrier) and retain the ability to sustain the MLRS fleet. Both obsolescence efforts are critical to address prior to execution of a recapitalization program for the current MLRS fleet or MLRS Fleet Expansion initiatives.

MLRS Mods address obsolescence mitigation and other design modifications via design, production, and implementation of Modification Kits to the MLRS fleet and supports Fleet Expansion through commonality with the Bradley platform.

For FY2018, the P-3a exhibit is restructured to include better fidelity of cost elements within the Field Artillery Launchers (FAL) Product Office unique to the M270 MLRS launcher required to sustain the 222 launcher fleet.

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



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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C67500 / MLRS Mods	<b>Modification Number / Title:</b> C67500 / Multiple Launch Rocket System (MLRS) Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	407.781	35.970	34.704	138.235	-	138.235	-	-	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	407.781	35.970	34.704	138.235	-	138.235	-	-	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>407.781</b>	<b>35.970</b>	<b>34.704</b>	<b>138.235</b>	<b>-</b>	<b>138.235</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

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

**Description:**

The Multiple Launch Rocket System (MLRS) launcher (M270A1) 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, counter-fire, 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 Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM), to include the Guided Multiple Launch Rocket System (GMLRS) and the Army Tactical Missile System (ATACMS). These munitions are capable of engaging targets with precision at ranges up to 300 kilometers.

In FY2017, the Army decided to extend the operational life of the MLRS fleet until FY2050 or beyond and increase the size of the MLRS fleet by 160 launchers via Fleet Expansion. Fleet Expansion conducts carrier modifications to existing M270A0s and integrates the Improved Armored Cab and the FCS Mod Kit solution to build a M270A2 configured launcher. This decision to increase the fleet's life by more than 20 years drives numerous obsolescence mitigation, technology refresh, and future recapitalization activities of the launcher fleet beginning in FY2019. MLRS Mods address obsolescence mitigation and other design modifications via design, production, and implementation of Modification Kits to the MLRS fleet and supports Fleet Expansion through commonality with the Bradley platform.

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 application of the IAC Modification Kit to a M270A1, the launcher permanently becomes a M270A2. First Unit Equipped (FUE) for M270A2 is projected for FY2021.

The next generation Fire Control System (FCS) eliminates obsolescence of the fielded M270A1 Improved Fire Control System (IFCS). First Unit Equipped (FUE) for an interim FCS solution is projected for FY2021. This system addresses the accelerated requirements associated with MLRS Fleet Expansion. FUE for the follow-on/long-term FCS Mod Kit solution, to include M-Code incorporation, is projected for FY2024. Benefits include a simplified design and increased reliability to reduce long-term operation & sustainment cost. Additionally, the capability to launch future munitions, such as GMLRS Insensitive Munitions Propulsion System (IMPS) missiles entering production, is enabled by this hardware upgrade, and associated organic tactical software, on a MLRS launcher. The government assumed responsibility for software development and maintenance from the prime contractor in FY2016. Organic software is defined as government developed, maintained, and owned software. The technology refresh enables capability to transition from legacy tactical software to current organic tactical software of the launcher.

Army Acquisition Objective is 225 MLRS launchers. 222 physical MLRS launchers remain within the fleet.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army Quantity	-	-	-	-	-	-	-	-	-

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<b>Exhibit P-3a, Individual Modification:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C67500 / MLRS Mods	<b>Modification Number / Title:</b> C67500 / Multiple Launch Rocket System (MLRS) Modifications

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

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
	Total Obligation Authority	35.970	34.704	138.235	-	138.235	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	-	-	-
<b>Total:</b>	<b>Quantity</b>	-	-	-	-	-	-	-	-	-
<b>Secondary Distribution</b>	<b>Total Obligation Authority</b>	<b>35.970</b>	<b>34.704</b>	<b>138.235</b>	-	<b>138.235</b>	-	-	-	-

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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>											<b>Date: May 2017</b>		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10				<b>P-1 Line Item Number / Title:</b> C67500 / MLRS Mods				<b>Modification Number / Title:</b> C67500 / Multiple Launch Rocket System (MLRS) Modifications					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> M270A1				<b>Modification Type:</b> .			<b>Related RDT&amp;E PEs:</b>						
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<b>Procurement</b>													
<b>Modification Item 1 of 5: Inactive Mods</b>													
A Kits													
Recurring													
Drivers Vision Enhancements(DVE)	0 / 7.300	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Equipment	9 / 277.344	0 / 0.020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
M993A1	0 / 7.333	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Global Positioning System (GPS) Upgrades	0 / 0.430	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Auxiliary Power Unit/Environmental Contr	0 / 15.600	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Enhanced Command and Control (C2)	0 / 22.994	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 331.001</b>	<b>- / 0.020</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: Inactive Mods</b>	<b>9 / 331.001</b>	<b>0 / 0.020</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Modification Item 2 of 5: Obsolescence Mitigations/ ECP Reliability Intg</b>													
A Kits													
Recurring													
Equipment	0 / 36.092	0 / 1.700	0 / 1.700	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Recurring</b>	<b>- / 36.092</b>	<b>- / 1.700</b>	<b>- / 1.700</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: Obsolescence Mitigations/ECP Reliability Intg</b>	<b>0 / 36.092</b>	<b>0 / 1.700</b>	<b>0 / 1.700</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Modification Item 3 of 5: M270A1 Mods</b>													
A Kits													
Non-Recurring													
Obsolescence Mitigation	0 / 0.000	0 / 0.000	0 / 0.000	0 / 29.134	0 / 0.000	0 / 29.134	- / -	- / -	- / -	- / -	- / -	- / -	
Program Management	0 / 0.000	0 / 0.000	0 / 0.000	0 / 2.986	0 / 0.000	0 / 2.986	- / -	- / -	- / -	- / -	- / -	- / -	
Systems Engineering	0 / 0.000	0 / 0.000	0 / 0.000	0 / 5.571	0 / 0.000	0 / 5.571	- / -	- / -	- / -	- / -	- / -	- / -	
Test & Evaluation	0 / 0.000	0 / 0.000	0 / 0.000	0 / 2.757	0 / 0.000	0 / 2.757	- / -	- / -	- / -	- / -	- / -	- / -	
Training	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.519	0 / 0.000	0 / 1.519	- / -	- / -	- / -	- / -	- / -	- / -	
Peculiar Support Equipment	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.402	0 / 0.000	0 / 0.402	- / -	- / -	- / -	- / -	- / -	- / -	
Industrial Facilities	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.608	0 / 0.000	0 / 1.608	- / -	- / -	- / -	- / -	- / -	- / -	
<b>Subtotal: Non-Recurring</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 43.977</b>	<b>- / 0.000</b>	<b>- / 43.977</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	
<b>Subtotal: M270A1 Mods</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 43.977</b>	<b>0 / 0.000</b>	<b>0 / 43.977</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	

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<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>										<b>Date: May 2017</b>				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10					<b>P-1 Line Item Number / Title:</b> C67500 / MLRS Mods					<b>Modification Number / Title:</b> C67500 / Multiple Launch Rocket System (MLRS) Modifications				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>							
<b>Models of Systems Affected: M270A1</b>				<b>Modification Type: .</b>				<b>Related RDT&amp;E PEs:</b>						
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total		
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)		
<b>Modification Item 4 of 5: Improved Armored Cab (IAC)</b>														
A Kits														
Recurring														
Production	0 / 0.000	0 / 0.000	6 / 18.169	76 / 83.613	0 / 0.000	76 / 83.613	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Subtotal: Recurring</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 18.169</b>	<b>- / 83.613</b>	<b>- / 0.000</b>	<b>- / 83.613</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>		
Non-Recurring														
Obsolescence Mitigation	0 / 7.716	0 / 21.904	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Subtotal: Non-Recurring</b>	<b>- / 7.716</b>	<b>- / 21.904</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>		
<b>Subtotal: Improved Armored Cab (IAC)</b>	<b>0 / 7.716</b>	<b>0 / 21.904</b>	<b>6 / 18.169</b>	<b>76 / 83.613</b>	<b>0 / 0.000</b>	<b>76 / 83.613</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>		
<b>Modification Item 5 of 5: Fire Control System (FCS)</b>														
A Kits														
Non-Recurring														
Obsolescence Mitigation	0 / 0.000	0 / 12.346	0 / 14.835	0 / 10.645	0 / 0.000	0 / 10.645	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Subtotal: Non-Recurring</b>	<b>- / 0.000</b>	<b>- / 12.346</b>	<b>- / 14.835</b>	<b>- / 10.645</b>	<b>- / 0.000</b>	<b>- / 10.645</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>		
<b>Subtotal: Fire Control System (FCS)</b>	<b>0 / 0.000</b>	<b>0 / 12.346</b>	<b>0 / 14.835</b>	<b>0 / 10.645</b>	<b>0 / 0.000</b>	<b>0 / 10.645</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>		
<b>Subtotal: Procurement, All Modification Items</b>	<b>9 / 374.809</b>	<b>0 / 35.970</b>	<b>6 / 34.704</b>	<b>76 / 138.235</b>	<b>0 / 0.000</b>	<b>76 / 138.235</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>		
<b>Installation</b>														
<b>Modification Item 1 of 5: Inactive Mods</b>	9 / 32.972	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Modification Item 2 of 5: Obsolescence Mitigations/ECP Reliability Intg</b>	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Modification Item 3 of 5: M270A1 Mods</b>	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Modification Item 4 of 5: Improved Armored Cab (IAC)</b>	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Modification Item 5 of 5: Fire Control System (FCS)</b>	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<b>Subtotal: Installation</b>	<b>9 / 32.972</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>0 / 0.000</b>	<b>- / -</b>	<b>0 / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>		
<b>Total</b>														
<b>Total Cost (Procurement + Support + Installation)</b>	<b>407.781</b>	<b>35.970</b>	<b>34.704</b>	<b>138.235</b>	<b>-</b>	<b>138.235</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C67500 / MLRS Mods	<b>Modification Number / Title:</b> C67500 / Multiple Launch Rocket System (MLRS) Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 1 of 5:** Inactive Mods

**Manufacturer Information**

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

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** TBD

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	9 / 32.972	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	9 / 32.972	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	9	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	9	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C67500 / MLRS Mods	<b>Modification Number / Title:</b> C67500 / Multiple Launch Rocket System (MLRS) Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 2 of 5:** Obsolescence Mitigations/ECP Reliability Intg

**Manufacturer Information**

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

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** TBD

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C67500 / MLRS Mods	<b>Modification Number / Title:</b> C67500 / Multiple Launch Rocket System (MLRS) Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 3 of 5:** M270A1 Mods

**Manufacturer Information**

Manufacturer Name: Precision Fires Rocket & Missile Systems Project Office	Manufacturer Location: Redstone Arsenal, AL
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** Field Artillery Launchers Product Office

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C67500 / MLRS Mods	<b>Modification Number / Title:</b> C67500 / Multiple Launch Rocket System (MLRS) Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 4 of 5:** Improved Armored Cab (IAC)

**Manufacturer Information**

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Sep 2017	May 2018				
Delivery Dates		Dec 2018	Aug 2019				

**Installation Information**

**Method of Implementation:** Depot

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	0	0	6	0	9	9	9	9	9	9	9	9	4	0	0	0	0	0	296	378
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	13	13	13	13	4	0	296	378



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: FY 2018 Army</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A / 03 / 10	<b>P-1 Line Item Number / Title:</b> C67500 / MLRS Mods	<b>Modification Number / Title:</b> C67500 / Multiple Launch Rocket System (MLRS) Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
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**Modification Item 5 of 5:** Fire Control System (FCS)

**Manufacturer Information**

Manufacturer Name: Harris	Manufacturer Location: Melbourne, FL
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** TBD

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

**Installation Schedule**

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	225	225
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	225	225

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	<b>P-1 Line Item Number / Title:</b> C67501 / HIMARS Modifications
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0210600A, 0603778A, 0210602A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	220.510	3.148	27.847	9.566	-	9.566	10.456	12.768	6.320	7.546	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	220.510	3.148	27.847	9.566	-	9.566	10.456	12.768	6.320	7.546	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>220.510</b>	<b>3.148</b>	<b>27.847</b>	<b>9.566</b>	<b>-</b>	<b>9.566</b>	<b>10.456</b>	<b>12.768</b>	<b>6.320</b>	<b>7.546</b>	<b>Continuing</b>	<b>Continuing</b>

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

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

**Description:**

The 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 Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM), to include the Guided Multiple Launch Rocket System (GMLRS) and the Army Tactical Missile System (ATACMS). These munitions are capable of engaging targets with precision at ranges up to 300 kilometers.

In FY2017, the Army decided to extend the operational life of the HIMARS fleet until FY2050 or beyond. This decision to increase the fleet's life by >20yrs drives numerous obsolescence mitigation, technology refresh, and future recapitalization activities of the launcher fleet.

Army Acquisition Objective is 363 HIMARS launchers.

**Justification:**

FY2018 Base procurement dollars in the amount of \$9.566 million support obsolescence mitigation of the M142 High Mobility Artillery Rocket System (HIMARS) launcher design and long-term sustainment of the HIMARS launcher fleet. HIMARS Mods address obsolescence mitigation and other design modifications via design, production, and implementation of Modification Kits to the HIMARS fleet.

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

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**Exhibit P-40, Budget Line Item Justification: FY 2018 Army** **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 04: Spares and Repair Parts / BSA 10: Spares And Repair Parts	<b>P-1 Line Item Number / Title:</b> CA0250 / Spares And Repair Parts
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	270.910	33.778	34.487	18.915	-	18.915	27.979	26.679	5.141	16.329	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	270.910	33.778	34.487	18.915	-	18.915	27.979	26.679	5.141	16.329	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>270.910</b>	<b>33.778</b>	<b>34.487</b>	<b>18.915</b>	<b>-</b>	<b>18.915</b>	<b>27.979</b>	<b>26.679</b>	<b>5.141</b>	<b>16.329</b>	<b>Continuing</b>	<b>Continuing</b>

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

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

**Description:**

Provides for the procurement of spares to support initial fielding of new or modified end items.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	33.566	34.487	18.915	-	18.915	27.979	26.679	5.141
ANG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.212	-	-	-	-	-	-	-
<b>Total: Secondary Distribution</b>	<b>Quantity</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Obligation Authority</b>	<b>33.778</b>	<b>34.487</b>	<b>18.915</b>	<b>-</b>	<b>18.915</b>	<b>27.979</b>	<b>26.679</b>	<b>5.141</b>

**Justification:**

FY2018 base procurement dollars in the amount of \$18.915 million supports the 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 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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**Exhibit P-40, Budget Line Item Justification: FY 2018 Army** **Date: May 2017**

**Appropriation / Budget Activity / Budget Sub Activity:** 2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA 10: Support Equipment & Facilities  
**P-1 Line Item Number / Title:** C93000 / Air Defense Targets

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

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

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	426.726	3.717	4.915	5.728	-	5.728	6.473	6.667	6.867	6.809	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	426.726	3.717	4.915	5.728	-	5.728	6.473	6.667	6.867	6.809	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>426.726</b>	<b>3.717</b>	<b>4.915</b>	<b>5.728</b>	<b>-</b>	<b>5.728</b>	<b>6.473</b>	<b>6.667</b>	<b>6.867</b>	<b>6.809</b>	<b>Continuing</b>	<b>Continuing</b>

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

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

**Description:**

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.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	3.717	4.915	5.728	-	5.728	6.473	6.667	6.867	6.809
<b>Total: Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	<b>3.717</b>	<b>4.915</b>	<b>5.728</b>	<b>-</b>	<b>5.728</b>	<b>6.473</b>	<b>6.667</b>	<b>6.867</b>	<b>6.809</b>

**Justification:**

FY 2018 Base procurement dollars in the amount of \$5.728 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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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA 10: Support Equipment & Facilities		<b>P-1 Line Item Number / Title:</b> C93000 / Air Defense Targets
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Army **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA 10: Support Equipment & Facilities	<b>P-1 Line Item Number / Title:</b> CL2000 / Items Less Than \$5.0m (Missiles)
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	52.949	1.544	-	-	-	-	-	-	-	-	-	54.493
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	52.949	1.544	-	-	-	-	-	-	-	-	-	54.493
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>52.949</b>	<b>1.544</b>	-	-	-	-	-	-	-	-	-	<b>54.493</b>

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

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

**Description:**

Provides for the procurement of various tools and shop sets to perform missile maintenance repair tasks on the Army's missile systems worldwide. The U.S. Army Aviation and Missile Life Cycle Management Command (AMCOM-LCMC) provides materiel support to U.S. Army combat units. Under the AMCOM-LCMC, the Program Executive Office, Missiles and Space (PEO MS) is required to build new toolkits and shop sets and replenish unserviceable toolkits and shop sets.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.544	-	-	-	-	-	-	-	-
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.544	-	-	-	-	-	-	-	-

**Justification:**

There is no FY18 funding.

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**Exhibit P-40, Budget Line Item Justification: FY 2018 Army** **Date:** May 2017

**Appropriation / Budget Activity / Budget Sub Activity:**  
2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA 10: Support Equipment & Facilities

**P-1 Line Item Number / Title:**  
CA0100 / Production Base Support

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

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

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	364.169	4.704	1.154	1.189	-	1.189	1.212	1.087	1.047	1.855	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	364.169	4.704	1.154	1.189	-	1.189	1.212	1.087	1.047	1.855	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>364.169</b>	<b>4.704</b>	<b>1.154</b>	<b>1.189</b>	<b>-</b>	<b>1.189</b>	<b>1.212</b>	<b>1.087</b>	<b>1.047</b>	<b>1.855</b>	<b>Continuing</b>	<b>Continuing</b>

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

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

**Description:**

This program provides funding to the Army Test and Evaluation Command (ATEC) to establish, modernize, expand or replace test facilities used in production testing of missiles and missile components. It sustains Army production test capabilities through upgrade and replacement of instrumentation and equipment that is technologically and/or economically obsolete. Modernization of test instrumentation and equipment provides increased automation and efficiencies, improved data quality and quantity and cost avoidances to Army Program Managers. Programmed funding will be used to upgrade or replace production test instrumentation and equipment at the White Sands Test Center (WSTC), White Sands Missile Range, NM and Redstone Test Center (RTC), Huntsville, AL.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.704	1.154	1.189	-	1.189	1.212	1.087	1.047	1.855
<b>Total:</b>									
<b>Secondary Distribution</b>									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	<b>4.704</b>	<b>1.154</b>	<b>1.189</b>	<b>-</b>	<b>1.189</b>	<b>1.212</b>	<b>1.087</b>	<b>1.047</b>	<b>1.855</b>

**Justification:**

ATEC: FY 2018 Base procurement dollars in the amount of \$1.189 million support the following: At WSTC, provides lifecycle replacement of optical systems (high definition digital cameras, video recorders, video streamers, tracking and support cameras) to provide a reliable test capability for the collection of Time, Space and Position Information (TSPI) data as well as surveillance of all open air missile testing conducted at the test range. At RTC, replaces obsolete and failing vertical shock machines used to perform missile shock tests by producing shock pulses within tolerances of MIL-STD-810; maintains the capability to evaluate hardware under anticipated shock environments in an efficient manner; also upgrades telemetry ground stations to reliably communicate with and track missiles in flight. The majority of the instrumentation being upgraded or replaced is obsolete and has met or exceeded its economic life. This instrumentation is required to ensure complete and accurate test data are collected and safety and environmental hazards are minimized. Benefits of this project include increased test efficiencies and decreased costs and risks to Army Program Managers.