Department of Defense Fiscal Year (FY) 2016 President's Budget Submission

February 2015

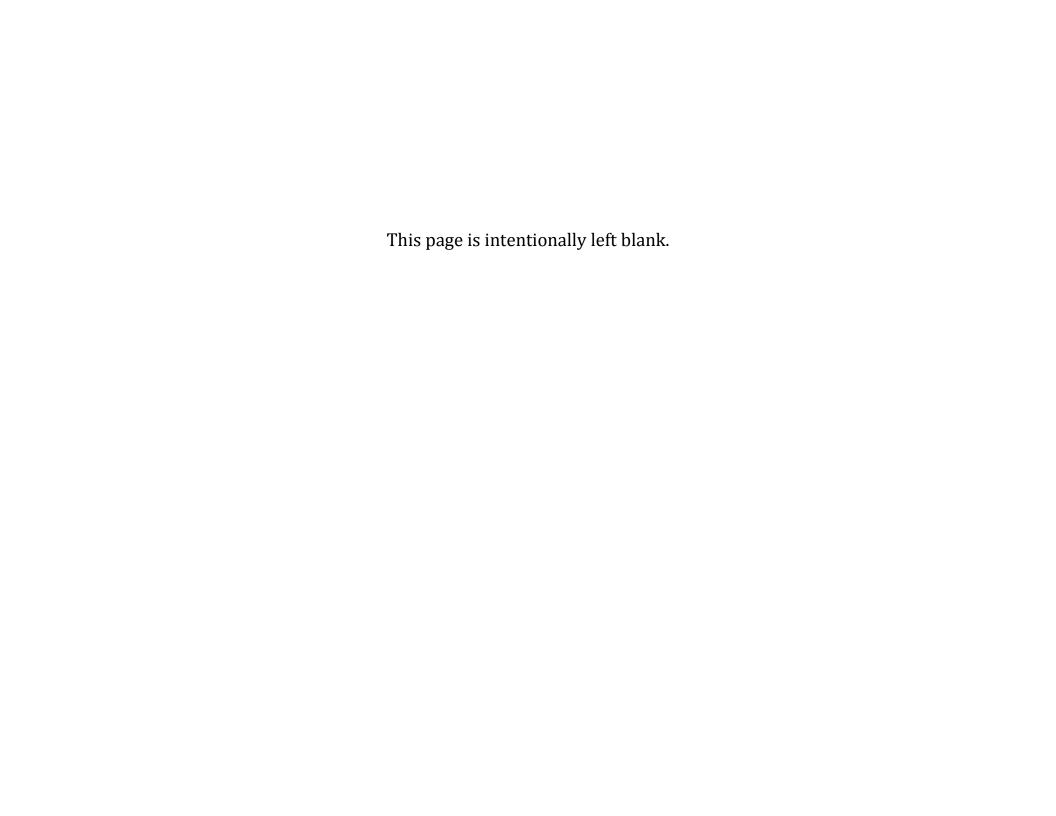


Army

Justification Book of

Missile Procurement, Army

UNCLASSIFIED





MISSILE PROCUREMENT, ARMY

Appropriation Language

For construction, procurement, production, modification, and modernization of missiles, 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, \$1,457,217,000 to remain available for obligation until September 30, 2018, of which \$27,084,000 shall be available for the Army National Guard and Army Reserve.

Department of the Army FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority (Dollars in Thousands)

16 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted
Missile Procurement, Army	1,693,562	1,208,692	32,136	1,240,828
Total Department of the Army	1,693,562	1,208,692	32,136	1,240,828

Department of the Army FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority (Dollars in Thousands)

16 Jan 2015

Appropriation Base OCO Total Missile Procurement, Army 1,419,957 37,260 1,457,3	FY 2016 Total		
~~~~~			
Missile Procurement, Army	1,419,957	37,260	1,457,217
Total Department of the Army	1,419,957	37,260	1,457,217

P-1C1: FY 2016 President's Budget (Published Version of PB Position), as of January 16, 2015 at 13:55:36

# Department of the Army FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority (Dollars in Thousands)

16 Jan 2015

Appropriation: Missile Procurement, Army

Budget Activity	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted
02. Other Missiles	1,271,767	935,005	32,136	967,141
03. Modification of Missiles	401,366	226,868		226,868
04. Spares and Repair Parts	10,474	36,930		36,930
05. Support Equipment and Facilities	9,955	9,889		9,889
Total Missile Procurement, Army	1,693,562	1,208,692	32,136	1,240,828

P-1C1: FY 2016 President's Budget (Published Version of PB Position), as of January 16, 2015 at 13:55:36

## Department of the Army FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority (Dollars in Thousands)

16 Jan 2015

Appropriation: Missile Procurement, Army

Budget Activity	FY 2016 Base	FY 2016 OCO	FY 2016 Total
02. Other Missiles	1,018,910	. 37,260	1,056,170
03. Modification of Missiles	357,304		357,304
04. Spares and Repair Parts	33,778		33,778
05. Support Equipment and Facilities	9,965		9,965
Total Missile Procurement, Army	1,419,957	37,260	1,457,217

P-1Cl: FY 2016 President's Budget (Published Version of PB Position), as of January 16, 2015 at 13:55:36

## Department of the Army FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority

Total Obligational Authority 16 Jan 2015
(Dollars in Thousands)

Appropriation: 2032A Missile Procurement, Army

***		FY 2014		FY 2015 Base Enacted		FY 2015 OCO Enacted		FY 2015 Total Enacted		S
Line No Item Nomenclature	Ident Code	Quantit		Quantity	7 Cost	Quantity	Cost	Quantity	Cost	e c
Budget Activity 02: Other Missiles										
Surface-to-Air Missile System										
l Lower Tier Air and Missile Defense (AMD)	А				110,300				110,300	U
2 MSE Missile		92	690,401	108	532,605			108	532,605	U
Air-To-Surface Missile System										
3 Hellfire Sys Summary	А	321	73,890		4,452	231	32,136	231	36,588	υ
4 Joint Air-To-Ground Msls (JAGM) Advance Procurement (CY)										U
Anti-Tank/Assault Missile Sys										
5 Javelin (Aaws-M) System Summary		564	110,510	311	72,877			311	72,877	ŭ
6 Tow 2 System Summary Less: Advance Procurement (PY)	A	988	(69,281) (-19,927)	1008	(50,368)			1008	(50,368)	U
			49,354	-	50,368				50,368	
7 Tow 2 System Summary Advance Procurement (CY)			19,965		19,984				19,984	U
8 Guided MLRS Rocket (GMLRS)		2166	273,025	774	127,145			774	127,145	υ.
9 MLRS Reduced Range Practice Rockets (RRPR)		1614	19,022	2994	17,274			2994	17,274	U
10 Army Tactical Msl Sys (ATACMS) - Sys Sum	В	. 24	35,600							U
Total Other Missiles			1,271,767	_	935,005		32,136		967,141	
Budget Activity 03: Modification of Missiles										
Modifications										
11 Patriot Mods			326,438		183,838				183,838	υ

P-1Cl: FY 2016 President's Budget (Published Version of PB Position), as of January 16, 2015 at 13:55:36

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## Department of the Army FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority

Total Obligational Authority 16 Jan 2015
(Dollars in Thousands)

Appropriation: 2032A Missile Procurement, Army

Line No Item Nomenclature	Ident Code	Quant	-		-	Quant	**	S e c
Budget Activity 02: Other Missiles								
Surface-to-Air Missile System								
1 Lower Tier Air and Missile Defense (AMD)	A		115,075				115,075	U
2 MSE Missile		80	414,946			80	414,946	υ
Air-To-Surface Missile System								
3 Hellfire Sys Summary	A	113	27,975	270	37,260	383	65,235	U
4 Joint Air-To-Ground Msls (JAGM) Advance Procurement (CY)			27,738				27,738	U
Anti-Tank/Assault Missile Sys								
5 Javelin (Aaws-M) System Summary		331	77,163			331	77,163	U
6 Tow 2 System Summary Less: Advance Procurement (PY)	A	1704	(107,509) (-19,984)	٠		1704	(107,509) (-19,984)	) U
			87,525				87,525	
7 Tow 2 System Summary Advance Procurement (CY)								U
8 Guided MLRS Rocket (GMLRS)		1668	251,060			1668	251,060	U
9 MLRS Reduced Range Practice Rockets (RRPR)		3121	17,428			3121	17,428	U
10 Army Tactical Msl Sys (ATACMS) - Sys Sum	В							υ
Total Other Missiles			1,018,910		37,260		1,056,170	-
Budget Activity 03: Modification of Missiles								
Modifications								
11 Patriot Mods			241,883				241,883	ū

P-1C1: FY 2016 President's Budget (Published Version of PB Position), as of January 16, 2015 at 13:55:36

# Department of the Army FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority (Dollars in Thousands)

Obligational Authority 16 Jan 2015

Appropriation: 2032A Missile Procurement, Army

			FY 20		FY 20		FY 20		FY 20		S
Line No	Item Nomenclature	Ident Code	(Base & Quantity	(OCO) Cost	Base En Quantity	acted. Cost	OCO Ena Quantity	cted Cost	Total En Quantity	nacted Cost	e
			Quantity		Qualities						-
12 AT	ACMS MODS	A									บ
13 GM	LRS MOD	A									U
14 St	inger Mods			37,252		1,355				1,355	U
15 Av	enger Mods					5,611				5,611	U
16 It	as/Tow Mods			20,000		19,676				19,676	U
17 ML	RS Mods			11,571		10,380				10,380	υ
18 Hi	mars Modifications			6,105		6,008				6,008	
Total	Modification of Missiles		4	01,366		26,868				226,868	-"
-	Activity 04: Spares and Repair Parts				•						
Spare	s and Repair Parts										
19 Sp	ares and Repair Parts			10,474		36,930				36,930	
Total	Spares and Repair Parts			10,474		36,930				36,930	
	Activity 05: Support Equipment and Facilities	3	-								
Suppo	rt Equipment & Facilities										
20 Ai	r Defense Targets			3,530		3,657				3,657	σ
21 It	ems Less Than \$5.0m (Missiles)			1,748		1,522				1,522	U
22 Pr	oduction Base Support			4,677		4,710				4,710	
Total	Support Equipment and Facilities		<b>.</b>	9,955		9,889				9,889	
Total	Missile Procurement, Army		1,6	93,562	1,2	08,692		32,136	1,2	240,828	

P-1C1: FY 2016 President's Budget (Published Version of PB Position), as of January 16, 2015 at 13:55:36

# Department of the Army FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority (Dollars in Thousands)

16 Jan 2015

Appropriation: 2032A Missile Procurement, Army

Line	Ident	FY 20 Bas		FY 20 OCO	16	FY 20 Tota		S e
No Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity		c
12 ATACMS MODS	A		30,119				30,119	U
13 GMLRS MOD	А		18,221				18,221	U
14 Stinger Mods			2,216				2,216	U
15 Avenger Mods	i		6,171				6,171	U
16 Itas/Tow Mods			19,576				19,576	U
17 MLRS Mods			35,970				35,970	U
18 Himars Modifications			3,148				3,148	U
Total Modification of Missiles		3	57,304			3	357,304	
Budget Activity 04: Spares and Repair Parts								
Spares and Repair Parts								
19 Spares and Repair Parts			33,778				33,778	
Total Spares and Repair Parts			33,778				33,778	
Budget Activity 05: Support Equipment and Facilities								
Support Equipment & Facilities								
20 Air Defense Targets			3,717				3,717	υ
21 Items Less Than \$5.0m (Missiles)			1,544				1,544	U
22 Production Base Support			4,704				4,704	U
Total Support Equipment and Facilities			9,965				9,965	
Total Missile Procurement, Army		1,4	19,957		37,260	1,4	57,217	

P-1Cl: FY 2016 President's Budget (Published Version of PB Position), as of January 16, 2015 at 13:55:36

Army • President's Budget Submission FY 2016 • Procurement

## **Table of Contents**

Line Item Table of Contents (by Appropriation then Line Number)
Line Item Table of Contents (Alphabetically by Line Item Title)
Exhibit P-40s

Army • President's Budget Submission FY 2016 • Procurement

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

## Appropriation 2032A: Missile Procurement, Army

Line #	ВА	BSA	Line Item Number	Line Item Title	Page
1	02	10	C50016	Lower Tier Air and Missile Defense (AMD)	1
2	02	10	C53101	MSE Missile	5
3	02	20	C70000	Hellfire Sys Summary	14
4	02	20	C70302	Joint Air-to-Ground MSLS (JAGM)	23
5	02	30	CC0007	Javelin (AAWS-M) System Summary	26
6	02	30	C59300	TOW 2 System Summary	35
7	02	30	C59300	TOW 2 System Summary, Advance Procurement	46
8	02	30	C64400	Guided MLRS Rocket (GMLRS)	50
9	02	30	C65405	MLRS Reduced Range Practice Rockets (RRPR)	59
10	02	30	C98510	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM	68

## Army • President's Budget Submission FY 2016 • Procurement

## Appropriation 2032A: Missile Procurement, Army

Line #	ВА	BSA	Line Item Number	Line Item Title Page
11	03	10	C50700	Patriot Mods
12	03	10	CA6700	ATACMS MODS
13	03	10	C57701	GMLRS MOD
14	03	10	C20000	Stinger Mods
15	03	10	CE8710	AVENGER MODS
16	03	10	C61700	ITAS/TOW Mods
17	03	10	C67500	MLRS Mods
18	03	10	C67501	HIMARS Modifications

## Appropriation 2032A: Missile Procurement, Army

Line #	ВА	BSA	Line Item Number	Line Item Title Pa	ag
19	04	10	CA0250	Spares And Repair Parts	14

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## Army • President's Budget Submission FY 2016 • Procurement

## Appropriation 2032A: Missile Procurement, Army

Line #	ВА	BSA	Line Item Number	Line Item Title	Page
20	05	10	C93000	Air Defense Targets	148
21	05	10	CL2000	Items Less Than \$5.0m (Missiles)	150
22	05	10	CA0100	Production Base Support	153

## Army • President's Budget Submission FY 2016 • Procurement

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

Line Item Title	Line Item Number	Line #	ВА	BSA	Page
ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM	C98510	10	02	30	68
ATACMS MODS	CA6700	12	03	10	94
AVENGER MODS	CE8710	15	03	10	110
Air Defense Targets	C93000	20	05	10	148
GMLRS MOD	C57701	13	03	10	99
Guided MLRS Rocket (GMLRS)	C64400	8	02	30	50
HIMARS Modifications	C67501	18	03	10	139
Hellfire Sys Summary	C70000	3	02	20	14
ITAS/TOW Mods	C61700	16	03	10	123
Items Less Than \$5.0m (Missiles)	CL2000	21	05	10	150
Javelin (AAWS-M) System Summary	CC0007	5	02	30	26
Joint Air-to-Ground MSLS (JAGM)	C70302	4	02	20	23
Lower Tier Air and Missile Defense (AMD)	C50016	1	02	10	1
MLRS Mods	C67500	17	03	10	130
MLRS Reduced Range Practice Rockets (RRPR)	C65405	9	02	30	59
MSE Missile	C53101	2	02	10	5
Patriot Mods	C50700	11	03	10	71

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## Army • President's Budget Submission FY 2016 • Procurement

Line Item Title	Line Item Number	Line #	ВА	BSA	Page
Production Base Support	CA0100	22	05	10	153
Spares And Repair Parts	CA0250	19	04	10	145
Stinger Mods	C20000	14	03	10	105
TOW 2 System Summary	C59300	6	02	30	35
TOW 2 System Summary, Advance Procurement	C59300	7	02	30	46

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C50016 / Lower Tier Air and Missile Defense (AMD)

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Cod	de B Items:			Other Relate	d Program Ele	ements:		
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	110.300	115.075	-	115.075	130.366	113.676	123.582	151.421	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	-	-	110.300	115.075	-	115.075	130.366	113.676	123.582	151.421	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	110.300	115.075	-	115.075	130.366	113.676	123.582	151.421	Continuing	Continuing
(The following	Resource Sum	mary rows are fo	or informational p	ourposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	_	-	-	-	-	-	-	-	-	-

### **Description:**

The Lower Tier Air and Missile Defense (AMD) supports the mission of the PATRIOT Advanced Capability-3 (PAC-3) Missile Field Surveillance Program (FSP) 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. 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.

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 (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 program is also used as a vehicle to engineer and maintain PATRIOT software. The majority of the software effort involves the engineering of post deployment software builds (PDB-8/8.x).

Procurement funded systems engineering and project management support the PATRIOT Weapon System. This support encompasses the overall planning, direction, and control of the production of the system/ program, including functions of logistics engineering and Integrated Logistics Support (ILS) management, e.g., maintenance support, facilities, personnel, training, testing, and activation of a system.

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Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C50016 / Lower Tier Air and Missile Defense (AMD)

ID Code (A=Service Ready, B=	=Not Service Ready) :	P	rogram Elements	for Code B Items	Items: Other Related Program Elements:							
Seconda	ry Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020		
Army	Quantity	-	-	-	=	-	-	-	-	-		
	Total Obligation Authority	-	110.300	115.075	-	115.075	130.366	113.676	123.582	151.421		
Total:			-	-	-	-	-	-	-	-		
Secondary Distribution	Total Obligation Authority	-	110.300	115.075	-	115.075	130.366	113.676	123.582	151.421		

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C50016 / Lower Tier Air and Missile Defense (AMD)

Missile System

Pr	ogran	Elements for Code	B Items:	Oth	ner Related Program I	Elements:	
		Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5		- / -	- / -	- /110.300	- / 115.075	- / -	- / 115.075
		- 1 -	- 1 -	- / 110.300	- / 115.075	- 1 -	- / 115.075
	Exhibits	Exhibits CD	Prior Years   ID   Quantity / Total Cost   (Each)   (\$ M)     P-5   - / -	Exhibits	Prior Years   FY 2014   FY 2015	Prior Years   FY 2014   FY 2015   FY 2016 Base	Prior Years   FY 2014   FY 2015   FY 2016 Base   FY 2016 OCO

^{*}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 add due to rounding.

#### Justification:

FY16 base procurement dollars in the amount of \$115.075 million support 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.

This is not a new start. Funds in this program are a realignment of funds from C53101 (MSE) to reflect those requirements that are not unique to MSE.

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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								NCLAS	··· ·									
Exhibit P-5, Cost	Analysis	s: PB 20	16 Army	/									ı	Date: F	ebruary 2	2015		
<b>Appropriation / B</b> 2032A / 02 / 10	udget A	ctivity /	Budget	Sub Act	ivity:	1		<b>Numbe</b> ver Tier A		lissile De	fense (A	AMD)	(	C50016		<b>Fitle [DO</b> Tier Air a		ile
ID Code (A=Service Read	y, B=Not Servi	ice Ready) :				ı			М	DAP/MAIS	Code:		ı		, ,			
F	Resource	Summ	arv			Prior Ye	ars	FY 20	14	FY	2015	FY	2016 Bas	e F	Y 2016 (	осо	FY 2016	Total
Procurement Quantity (Unit							-		-		_			-		-		
Gross/Weapon System Co	st (\$ in Million	ıs)					-		-		110.3	00	115	.075		-		115.0
ess PY Advance Procure	ment (\$ in Mil	llions)					-		-		-			-		-		
Net Procurement (P1) (\$ in	Millions)	-					-		-		110.3	00	115	.075		-		115.0
Plus CY Advance Procure	ment (\$ in Mil	lions)					-		-		-			-		-		
Total Obligation Authorit	<b>y</b> (\$ in Millions	s)					-		-		110.3	00	115	.075		-		115.0
(Th	ne following l	Resource Si	ummary row	s are for info	rmational p	urposes onl	y. The corres	sponding bud	get request	s are docume	ented elsew	here.)				<u> </u>		
Initial Spares (\$ in Millions)							-	, ,	-		_			-		-		
Gross/Weapon System Un	it Cost (\$ in 1	Thousands)					-		-					-		-		
																l l		
Note: Subtotals or Totals in	n this Exhibit	P-5 may no	ot be exact of	or add, due to	rounding.		1			-					'	1		
	F	Prior Years	s		FY 2014			FY 2015		FY	2016 Ba	se	FY	2016 OC	o	F	Y 2016 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost
Flyaway Cost	(\$75)	(Lucii)	(\$ 111)	(\$75)	(Luon)	(\$ 111)	(\$75)	(Luon)	(\$ 101)	(\$75)	(Eddin)	(\$ 11.7)	(Ψ19	(Lucii)	(0 111)	(\$79	(Luon)	(\$ 111)
Recurring Cost																		
Field Surveillance Program	-		_	_	_	_	_	-	15.000	-	_	15.000	-	_	_	_	-	15.0
P3MSC	-	-	-	-	-	-	-	-	6.400	-	-	5.500	-	-	-	-	-	5.5
International Engr Services Program	-	-	-	-	-	-	-	-	55.200	-	_	56.800	-	-	-	-	-	56.
System Engineering/									0.000			0.000						
Project Management OGA/ILS	-		-	-	-	-	-	-	9.000	-	-	9.200 28.575	-		-	-	-	9.:
Subtotal: Recurring Cost	-		-	-		-	-	-	110.300	-		115.075			-	-	-	115.0
Subtotal: Flyaway Cost	-	-	-	-	-	-	-	-	110.300	-		115.075	-	_	-	-	-	115.0
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	110.300	-	-	115.075	-	-	-	-	-	115.0
												FY 2	016		FY 2016		FY 201	
	Sec		stribution	<u> </u>			FY	2014		FY 2015		Ba	se		осо		Total	ı
Army			intity					-	_		-		-			-		
Fotal:			al Obligation A	utnority				-			110.300		115.075			-		115.0
		Qua	intity						·		-		-			-		
Secondary Distribution		Tota	al Obligation	Authority				_	.		110.300		115.075	:		-		115.0

LI C50016 - Lower Tier Air and Missile Defense (AMD) Army

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Page 4 of 4

P-1 Line #1

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C53101 / MSE Missile

Missile System

Program Elements for Code B Items:

Other Related Program Elements: 0604865A, 0603869A,

0604869A, 0605456A

Line Item MDAP/MAIS Code: Item MDAP/MAIS Code(s): 492

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

Item MD	AP/IVIAIS COU	le(S). 49Z									
Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
		100						05	104	•	
-	92	108	80	-	80	85	93	95	104	1,057	1,714
81.660	690.401	532.605	414.946	-	414.946	430.622	462.676	493.613	569.488	2,247.200	5,923.211
-	-	-	-	-	-	-	-	-	-	-	-
81.660	690.401	532.605	414.946	-	414.946	430.622	462.676	493.613	569.488	2,247.200	5,923.211
-	-	-	-	-	-	-	-	-	-	-	-
81.660	690.401	532.605	414.946	-	414.946	430.622	462.676	493.613	569.488	2,247.200	5,923.211
Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	budget requests	are documente	d elsewhere.)				
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	7,504.359	4,931.528	5,186.825	-	5,186.825	5,066.141	4,975.011	5,195.926	5,475.846	2,126.017	3,455.782
	Prior Years  - 81.660 - 81.660 - 81.660 - 81.660 81.660	Prior Years FY 2014  - 92 81.660 690.401  81.660 690.401  - 81.660 690.401  Resource Summary rows are for the summary	Prior Years         FY 2014         FY 2015           -         92         108           81.660         690.401         532.605           -         -         -           81.660         690.401         532.605           -         -         -           81.660         690.401         532.605           Resource Summary rows are for informational p         -         -           -         -         -         -           -         -         -         -           -         -         -         -	Prior Years         FY 2014         FY 2015         FY 2016 Base           -         92         108         80           81.660         690.401         532.605         414.946           -         -         -         -           81.660         690.401         532.605         414.946           -         -         -         -           81.660         690.401         532.605         414.946           Resource Summary rows are for informational purposes only. The contract of the contr	Prior Years         FY 2014         FY 2015         FY 2016 Base         FY 2016 OCO           -         92         108         80         -           81.660         690.401         532.605         414.946         -           -         -         -         -         -           81.660         690.401         532.605         414.946         -           -         -         -         -         -           81.660         690.401         532.605         414.946         -           Resource Summary rows are for informational purposes only. The corresponding         -         -         -           -         -         -         -         -         -           -         -         -         -         -         -	Prior Years         FY 2014         FY 2015         FY 2016 Base         FY 2016 OCO         FY 2016 Total           -         92         108         80         -         80           81.660         690.401         532.605         414.946         -         414.946           -         -         -         -         -         -           81.660         690.401         532.605         414.946         -         414.946           -         -         -         -         -         -           81.660         690.401         532.605         414.946         -         414.946           Resource Summary rows are for informational purposes only. The corresponding budget requests         -         -         -           -         -         -         -         -         -           -         -         -         -         -         -	Prior Years         FY 2014         FY 2015         FY 2016 Base         FY 2016 OCO         FY 2016 Total         FY 2017           -         92         108         80         -         80         85           81.660         690.401         532.605         414.946         -         414.946         430.622           -         -         -         -         -         -         -           81.660         690.401         532.605         414.946         -         414.946         430.622           -         -         -         -         -         -         -         -           81.660         690.401         532.605         414.946         -         414.946         430.622           Resource Summary rows are for informational purposes only. The corresponding budget requests are documenteen contact and	Prior Years         FY 2014         FY 2015         Base         FY 2016 OCO         FY 2016 Total         FY 2017         FY 2018           -         92         108         80         -         80         85         93           81.660         690.401         532.605         414.946         -         414.946         430.622         462.676           -         -         -         -         -         -         -         -           81.660         690.401         532.605         414.946         -         414.946         430.622         462.676           -         -         -         -         -         -         -         -           81.660         690.401         532.605         414.946         -         414.946         430.622         462.676           Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	Prior Years         FY 2014         FY 2015         Base         FY 2016 OCO         FY 2016 Total         FY 2017         FY 2018         FY 2019           -         92         108         80         -         80         85         93         95           81.660         690.401         532.605         414.946         -         414.946         430.622         462.676         493.613           -         -         -         -         -         -         -         -         -           81.660         690.401         532.605         414.946         -         414.946         430.622         462.676         493.613           -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	Prior Years         FY 2014         FY 2015         Base         OCO         Total         FY 2017         FY 2018         FY 2019         FY 2020           -         92         108         80         -         80         85         93         95         104           81.660         690.401         532.605         414.946         -         414.946         430.622         462.676         493.613         569.488           -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - <td>Years         FY 2014         FY 2015         Base         OCO         Total         FY 2017         FY 2018         FY 2019         FY 2020         Complete           -         92         108         80         -         80         85         93         95         104         1,057           81.660         690.401         532.605         414.946         -         414.946         430.622         462.676         493.613         569.488         2,247.200           -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td>	Years         FY 2014         FY 2015         Base         OCO         Total         FY 2017         FY 2018         FY 2019         FY 2020         Complete           -         92         108         80         -         80         85         93         95         104         1,057           81.660         690.401         532.605         414.946         -         414.946         430.622         462.676         493.613         569.488         2,247.200           -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -

## **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) & 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 Insensitive Munitions (IM) compliance for greater warfighter safety. The MSE was being developed to integrate with the PATRIOT system for the U.S. and is also the internationally accepted missile for MEADS (as FMS case).

Secondar	ry Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	92	108	80	-	80	85	93	95	104
	Total Obligation Authority	690.401	532.605	414.946	-	414.946	430.622	462.676	493.613	569.488
Total:	Quantity	92	108	80	-	80	85	93	95	104
Secondary Distribution	Total Obligation Authority	690.401	532.605	414.946	-	414.946	430.622	462.676	493.613	569.488

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LI C53101 - MSE Missile Army

P-1 Line #2

5

			UNC	LASSIFIED								
Exhibit P-40, Budget Line Item Justification: P	B 2016 Ar	my				Date:	February 2015					
Appropriation / Budget Activity / Budget Sub A 2032A: Missile Procurement, Army / BA 02: Other Missile System		BSA	A 10: Surface-to-A		<b>n Number / Title:</b> E Missile							
ID Code (A=Service Ready, B=Not Service Ready) :	Pro	gran	n Elements for Code	Other Related Program Elements: 0604865A, 0603869A, 0604869A, 0604869A, 0605456A								
Line Item MDAP/MAIS Code: Item MDAP/M	AIS Code(s)	: 492			'			_				
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total				
Title*	Exhibits	ID CD	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)				
C53101 / MSE Missile	P-5, P-5a, P-21		- / 81.660	92 / 690.401	108 / 532.605	80 / 414.946	- / -	80 / 414.946				
Total Gross/Weapon System Cost			- / 81.660	92 / 690.401	108 / 532.605	80 / 414.946	- 1 -	80 / 414.946				
*Title represents 1) the Number / Title for Items; 2) the Number / Title [I	DODIC] for Am	muniti	ion; and/or 3) the Number	/ Title (Modification Type	e) for Modifications.							
Note: Totals in this Exhibit P-40 set may not be exact or add due to rou	ınding.											
The FY 2016 base procurement dollars in the amount of \$414 Army Acquisition Objective (AAO) is 3376.  In accordance with Section 1815 of the FY 2008 National Def domestic emergency responses, and providing military supports. *Affects of notional FMS procurement of PAC-3 missile variant may not be achievable.	ense Authori ort to civil autl	zatio horitie	n Act (P.L. 110-181), t es.	his item is necessary t	for active and reserve	components of the Arn	ned Forces for homelar					

**UNCLASSIFIED** LI C53101 - MSE Missile 6 Page 2 of 9 P-1 Line #2 Army

Date: February 2015 Exhibit P-5, Cost Analysis: PB 2016 Army Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: 2032A / 02 / 10 C53101 / MSE Missile C53101 / MSE Missile

ID Code (A=Service Ready, B=Not Service Ready) :		МІ	DAP/MAIS Code:492			
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	92	108	80	-	80
Gross/Weapon System Cost (\$ in Millions)	81.660	690.401	532.605	414.946	-	414.946
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	81.660	690.401	532.605	414.946	-	414.946
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	81.660	690.401	532.605	414.946	-	414.946
(The following Resource Summary rows are for information	onal purposes only. The cor	responding budget request	s are documented elsewher	re.)		1
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	7,504.359	4,931.528	5,186.825	-	5,186.825

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

	P	rior Years	3		FY 2014			FY 2015		FY	2016 Bas	е	FY	2016 OC	0	FY	2016 Tota	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)												
Flyaway Cost											'							
Recurring Cost																		
Missile Hardware ^(†)	-	-	-	4,673.913	92	430.000	4,425.000	108	477.900	4,266.250	80	341.300	-	-	-	4,266.250	80	341.3
Field Surveillance	-	-	-	-	-	25.900	-	-	2.600	-	-	2.900	-	-	-	-	-	2.9
PAC-3 Missile Support Center (P3MSC)	-	-	-	-	-	12.000	-	-	1.600	-	-	1.600	-	-	-	-	-	1.6
Obsolescence	-	-	-	-	-	20.500	-	-	18.005	-	-	16.700	-	-	-	-	-	16.7
Launcher Station (LS) Mods	-	-	-	-	-	13.300	-	-	5.900	-	-	5.900	-	-	-	-	-	5.9
Heater Kits	-	-	-	-	-	2.500	-	-	-	-	-	-	-	-	-	-	-	
Msl Round Trainer / Empty Round Trainer	-	-	-	-	-	56.800	-	-	11.100	-	-	30.726	-	-	-	-	-	30.7
Initial Production Facilitization	-	-	81.220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Contractor Engineering	-	-	-	-	-	54.349	-	-	-	-	-	-	-	-	-	-	-	
Government/Software Engineering	-	-	0.440	-	-	27.174	-	-	6.200	-	-	6.340	-	-	-	-	-	6.3
Sys Engrg/Proj Mgmt (SE/PM) Contractor	-	-	-	-	-	19.410	-	-	9.300	-	-	9.480	-	-	-	-	-	9.4
Integrated Logistics Support	-	-	-	-	-	28.468	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: Recurring Cost	-	-	81.660	-	-	690.401	-	-	532.605	-	-	414.946	-	-	-	-	-	414.9
Subtotal: Flyaway Cost	-	-	81.660	-	-	690.401	-	-	532.605	-	-	414.946	-	-	-	-	-	414.9

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Page 3 of 9 P-1 Line #2

Date: February 2015 Exhibit P-5, Cost Analysis: PB 2016 Army

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

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

MDAP/MAIS Code:492

Note: Subtotals or Totals in	n this Exhibit P-5 may not be exact o	or add, due to rounding.	
	Prior Years	FY 2014	FY 20

. toto: oubtotaio er rotaio i			or bo ondor o		· · · · · · · · · · · · · · · · · · ·													
	F	Prior Years	5		FY 2014			FY 2015		FY	/ 2016 Bas	se	F	Y 2016 OC	0	FY	/ 2016 Tot	al
	Unit Coot	04.	Total	Unit Coat	Otre	Total	Unit Coat	Otre	Total	Unit Coot	04.	Total	Unit Coat	Otre	Total	Unit Coot	04.	Total
04 51	Unit Cost	Qty	Cost	Unit Cost	Qty	Cost	Unit Cost	Qty	Cost	Unit Cost	Qty	Cost	Unit Cost	Qty	Cost	Unit Cost	Qty	Cost
Cost Elements	(\$ K)	(Each)	(\$ M)	(\$ K)	(Each)	(\$ M)	(\$ K)	(Each)	(\$ M)	(\$ K)	(Each)	(\$ M)	(\$ K)	(Each)	(\$ M)	(\$ K)	(Each)	(\$ M)
Gross/Weapon System																		.
Cost	-	-	81.660	7,504.359	92	690.401	4,931.528	108	532.605	5,186.825	80	414.946	-	-	-	5,186.825	80	414.946

Secondar	y Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Army	Quantity	92	108	80	-	80
	Total Obligation Authority	690.401	532.605	414.946	-	414.946
Total:	Quantity	92	108	80	=	80
Secondary Distribution	Total Obligation Authority	690.401	532.605	414.946	-	414.946

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2016 A	ırmy	Date: February 2015
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	0 C 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost		 RFP Issue Date
Missile Hardware ^(†)		2014	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Mar 2014	Aug 2015	92	4,673.913	N	Oct 2013
Missile Hardware ^(†)		2015	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Mar 2015	Aug 2016	108	4,425.000	N	
Missile Hardware ^(†)		2016	LMMFC / Dallas, TX	SS / FPIF	AMCOM, RSA, AL	Feb 2016	Aug 2017	80	4,266.250	N	

^(†) indicates the presence of a P-21

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Ex	hil	bit P	-21, Pro	duct	ion Sc	hedul	le: Pl	3 201	6 Arm	ıy														Date	: Feb	oruary	2015	5			
			i <b>ation</b> / 1 12 / 10	Budg	et Acti	vity /	Bud	get Sı	ub Ac	tivity	:				Num Miss		Title:							1		nber / MSE		_	)IC]:		
				ements n Each)								Fiscal Y	ear 2014											Fiscal Y	ear 2015						
					ACCEPT									(	Calendar	Year 201	4								Caler	ndar Year	2015				
0 0	M F R	FY	050/405	PROC QTY	PRIOR TO 1 OCT 2013	BAL DUE AS OF	0 C	N O V	D E C	J A N	F E B	M A R	A P R	M A	J	n 1	A U G	S E	0 C	N O V	D E C	J A N	F E B	M A R	A P R	M A	Z C C	J U	A U G	S E P	B
		Hardwa	SERVICE	QIT	2013	1 OCT	'	V	C	N	Ь	K	K	T	N	L	G	Р	ı	V	l c	N	Ь	K	K	T	N		G	<u> </u>	
			ARMY	92	-	92						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12		
	1	2015	ARMY	108	-	108																		Α -	-	-	-	-	-	-	10
	1	2016	ARMY	80	-	80																									8
						,	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	J L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	U U	A U G	S E P	B A L

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Exh	ibit I	P-21, Pr	oducti	on Sc	hedul	e: PE	3 201	6 Arm	ıy														Date	: Feb	ruary	2015	5			
	-	<b>iation</b> / 02 / 10	Budge	et Acti	vity /	Budg	jet Sı	ıb Ac	tivity	:		<b>Line</b> 3101 <i>i</i>				Title:									nber / MSE		-	)IC]:		
			lements in Each)								Fiscal Y	ear 2016											Fiscal Ye	ear 2017						
				ACCEPT									C	alendar	Year 201	6								Caler	dar Year	2017				
O F C R O #	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	0 C	N O V	D E C	J A N	F E B	M A R	A P R	M A	J U N	J J	A U G	S E	0 C	N O V	D E C	J A	F E B	M A R	A P R	M A	J U N	J	A U G	S E P	B A
_	Hardw		Q I I	2013	1001		•		.,				•		_		•		•		.,		- 1	- 1	•		_			
1	2014	ARMY	92	12	80	4	-	-	-	-	-	16	18	20	22															
1	2015	ARMY	108	-	108	-	-	-	-	-	-	-	-	-	-	20	20	20	20	20	8									-
1	2016	ARMY	80	-	80					Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	28	2
		,			,	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	J U	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	J U L	A U G	S E P	B A L

Ex	hib	oit F	9-21, Pro	oducti	on Sc	hedul	le: PE	3 201	6 Arm	ıy														Date	e: Feb	ruary	2015	5			
-	-	-	i <b>ation / I</b> 02 / 10	Budge	et Acti	vity /	Budg	jet Si	ub Ac	tivity	:		<b>Line</b> 3101 <i>i</i>				Title:								<b>Num</b> 101 /				DIC]:		
			Cost El (Units i	ements n Each)								Fiscal Y	ear 2018											Fiscal Y	ear 2019						
					ACCEPT									C	alendar	Year 201	8								Calen	dar Year	2019				
0 C 0	F R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	J J	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	JUL	A U G	S E P	E A
Miss	sile F	Hardwa	are										1														1				
-	1 2	2014	ARMY	92	92	-																									
	1 2	2015	ARMY	108	108	-																									
Ŀ	1 2	2016	ARMY	80	56	24	24																							_	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	U U	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U	A U G	S E P	E A
						,																									

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Exhibit P-21, Production Schedule: PB 2016 Army	Date: February 2015
, , , , , , , , , , , , , , , , , , ,	Item Number / Title [DODIC]: C53101 / MSE Missile

		Produc	ction Rates (Each	/ Year)				Procurement Lea	adtime (Months)			
MFR						Init	ial			Reo	rder	
Ref					ALT	ALT		Total	ALT	ALT		Total
#	MFR Name - Location	MSR For 2016	1-8-5 For 2016	MAX For 2016	Prior to Oct 1	After Oct 1	Mfg PLT	After Oct 1	Prior to Oct 1	After Oct 1	Mfg PLT	After Oct 1
1	LMMFC - Dallas, TX	72	240	360	-	6	17	23	-	6	17	23

#### Remarks:

Production Rates reflect annual production capacity.

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 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).

LI C53101 - MSE Missile
Army

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P-1 Line #2

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

Exhibit P-40, Budget Line Item Justification: PB 2016 Army Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

Missile System

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Co	de B Items:			Other Relate	d Program El	<b>ements:</b> 0203	802A, 0210109	A
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	75,718	321	231	113	270	383	281	236	237	-	-	77,407
Gross/Weapon System Cost (\$ in Millions)	5,438.848	73.890	36.588	27.975	37.260	65.235	42.614	42.624	40.653	4.351	-	5,744.803
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	5,438.848	73.890	36.588	27.975	37.260	65.235	42.614	42.624	40.653	4.351	-	5,744.803
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	5,438.848	73.890	36.588	27.975	37.260	65.235	42.614	42.624	40.653	4.351	-	5,744.803
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	71.830	230.187	158.390	247.566	138.000	170.326	151.651	180.610	171.532	-	-	74.216

## **Description:**

The Laser HELLFIRE II system family of air-to-ground missiles (all variants) provides 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 armament 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 missile will be the single variant that replaces all other HELLFIRE II missile configurations (K/N/M/P). HELLFIRE II Romeo procurement funding supports the entire HELLFIRE II system to include resolution of obsolescence, safety, reliability, weapon integration activities, test sets, engineering changes and production issues. This missile will be compatible on all current force UAS and rotary wing platforms.

				FY 2016	FY 2016	FY 2016				
Secondar	ry Distribution	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	321	231	113	270	383	281	236	237	-
	Total Obligation Authority	73.890	36.588	27.975	37.260	65.235	42.614	42.624	40.653	4.351
Total:	Quantity	321	231	113	270	383	281	236	237	-
Secondary Distribution	<b>Total Obligation Authority</b>	73.890	36.588	27.975	37.260	65.235	42.614	42.624	40.653	4.351

Exhibit P-40, Budget Line Item Justification: PB 2016 Army Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

Missile System

ID Code (A=Service Ready, B=Not Service Ready) :	Pro	gram	n Elements for Code	B Items:	Oth	Other Related Program Elements: 0203802A, 0210109A					
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total			
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)						
C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)	P-5, P-5a, P-21		62,813 / 3,328.940	321 / 73.890	231 / 36.588	113 / 27.975	270 / 37.260	383 / 65.235			
Total Gross/Weapon System Cost			75,718 / 5,438.848	321 / 73.890	231 / 36.588	113 / 27.975	270 / 37.260	383 / 65.235			

*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 add due to rounding.

#### Justification:

The HELLFIRE Product Office is the procurement agent for all services for all variants of the HELLFIRE missile.

FY 2016 Base procurement dollars in the amount of \$27.975 million provide government engineering support for HELLFIRE II missiles and the procurement of 113 missiles. These funds continue through the Program Objective Memorandum (POM) to support Army deliveries, work issues from field failures, support the users, address obsolescence and facilitate other service orders. Army Acquisition Objective is 34,292.

FY 2016 Overseas Contingency Operations (OCO) procurement dollars in the amount of \$37.260 million procure the replacement of 270 missiles expended in theater.

The Army has depended on OCO funding to replenish stocks since FY 2008. The Army continues to evaluate the transition strategy from HELLFIRE to Joint Air to Ground Missile (JAGM). The Army intends to convert any price advantage created through contract negotiations, other service procurement and/or Foreign Military Sale (FMS) to increase the Army procurement of HELLFIRE II missiles.

Due to timing issues with the PB16 submission, the FY16 quantity is understated. The correct Base quantity should be 200 and the correct OCO quantity is 270 for a total quantity of 470. The unit cost for both Base and OCO quantities is projected to be \$98,785K.

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

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Exhibit P-5, Cost	Analysis	: PB 20	16 Army											Date: Fe	bruary 2	015		
								Number		C70100	em Number / Title [DODIC]: 70100 / LASER HELLFIRE MSL ASIC/IHW/HFII)							
ID Code (A=Service Read	ly, B=Not Servi	ce Ready) :				'			М	DAP/MAIS	Code:							
F	Resource Summary Pri				Prior Years FY 20			14	FY	2015	FY	2016 Bas	se F	Y 2016 C	СО	FY 2016 Total		
Procurement Quantity (Unit	ts in Each)						62,813		321			231		113		270		38
Gross/Weapon System Co	ost (\$ in Million	s)				3,	328.940		73.890		36.	588	27	7.975		37.260		65.23
Less PY Advance Procure	ment (\$ in Mil.	lions)					-		-			-		-		-		-
Net Procurement (P1) (\$ in	Millions)					3,	328.940		73.890		36.	588	27	7.975		37.260		65.23
Plus CY Advance Procure	ment (\$ in Mill	ions)					-		-			-		-		-		_
Total Obligation Authorit	y (\$ in Millions	)				3,	328.940		73.890		36.	588	27	7.975		37.260		65.23
(Tř	ne following F	Resource Su	ımmary row	s are for info	rmational pu	rposes only	The corres	ponding budg	et request	s are docume	ented else	where.)						
Initial Spares (\$ in Millions)						<u> </u>	-		-			-		-		-		-
Gross/Weapon System Ur	nit Cost (\$ in 7	housands)					52.998		230.187		158.	390	247	7.566		138.000		170.32
Note: Subtotals or Totals in	n this Exhibit	P-5 may no	t be exact o	r add, due to	rounding.													
	P	Prior Years FY 201			FY 2014	014 FY 2015				FY 2016 B			F	/ 2016 OC	6 OCO		FY 2016 Total	
Cost Elements	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost	. , ,	, , ,		, ,	, ,	· /	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,		,,,,,			,		, , ,		. , ,	
Recurring Cost																		
All-up Rounds ^(†)	43.772	62,813	2,749.431	143.022	321	45.910	97.268	231	22.469	174.841	11	3 19.757	98.785	270	26.672	121.225	383	46.42
Engineering Services	-	-	120.357	-	-	3.707	-	-	1.878	-	-	1.615	i -	-	1.878	-	-	3.49
Fielding	-	-	29.007	-	-	0.836	-	-	0.368	-	-	0.323	-	-	0.436	-	-	0.75
Acceptance Testing	-	-	52.537	-	-	0.150	-	-	0.066	-	-	0.058	-	-	0.078	-	-	0.13
Project Mgt Admin	-	-	151.911	-	-	10.177	-	-	5.193	-	-	2.604	-	-	3.353	-	-	5.9
Production Engineering Support	-	_	225.673	-	_	13.110	_	_	6.614	-	_	3.618	-	_	4.843	-	_	8.46
Subtotal: Recurring Cost	-	-	3,328.936	-	-	73.890	-	-	36.588	-	-	27.975		-	37.260	-	-	65.23
Subtotal: Flyaway Cost	-	-	3,328.936	-	-	73.890	-	-	36.588	-	-	27.975	i -	-	37.260	-	-	65.23
Gross/Weapon System Cost	52.998	62,813	3,328.940	230.187	321	73.890	158.390	231	36.588	247.566	11	3 27.975	138.000	270	37.260	170.326	383	65.23
	Sec	ondary Dis	stribution				FY	2014		FY 2015			2016 se		Y 2016 OCO		FY 201 Total	
Army		Qua	ntity					32	11		231		11:	3		270		38
		Tota	l Obligation A	uthority				73.89	0		36.588	<u> </u>	27.97	5		37.260		65.23
Total: Secondary Distribution		Qua	•					32			231		11:			270		38
oecondary Distribution		Tota	I Obligation A	Authority				73.89	n		36.588		27.97	e I		37.260		65.23

LI C70000 - Hellfire Sys Summary Army

Exhibit P-5, Cost Analysis: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 20	P-1 Line Item Number / Title: C70000 / Hellfire Sys Summary	Item Number / Title [DODIC]: C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	
ID Code (A=Service Ready, B=Not Service Ready):  (†) indicates the presence of a P-5a	MDAP/MAIS Code:	(BASIC/IHW/HFII)

LI C70000 - Hellfire Sys Summary Army

Exhibit P-5a, Procurement History and Planning: PB 2016	Date: February 2015	
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 20	P-1 Line Item Number / Title: C70000 / Hellfire Sys Summary	Item Number / Title [DODIC]: C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)

Cost Elements	0 C 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	<b>Qty</b> (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
All-up Rounds ^(†)		2014	HELLFIRE Sys Limited Liability / Orlando	C/FFP	AMCOM, Redstone Arsenal, AL	May 2014	May 2016	321	143.022	N		Mar 2011
All-up Rounds ^(†)		2015	HELLFIRE Sys Limited Liability / Orlando	C/FFP	AMCOM, Redstone Arsenal, AL	May 2015	May 2017	231	97.268	N		Dec 2013
All-up Rounds ^(†)		2016	HELLFIRE Sys Limited Liability / Orlando	C/FFP	AMCOM, Redstone Arsenal, AL	May 2016	May 2018	113	174.841	N		Dec 2013
All-up Rounds ^(†)		2016	HF Sys Limited Liability / Orlando	C/FFP	AMCOM, Redstone Arsenal, AL	May 2016	May 2018	270	98.785	N		Dec 2013

^(†) 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. Quantities include United States Air Force procurement, United States Navy procurement of tactical missiles and United States Army procurement of Hellfire II AGM-114R missiles.

P-40 FY 2015 and FY 2016 Weapon System Procurement Unit Cost is constrained by format. 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. All customers benefit from every order placed within the ordering window. FY 2014 actuals as of the end of December 2014 was a quantity of 533 at a unit cost of \$86.135K.

Due to timing issues with the PB16 submission, the FY16 quantity is understated. The correct Base quantity should be 200 and the correct OCO quantity is 270 for a total quantity of 470. The unit cost for both Base and OCO quantities is projected to be \$98.785K.

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M O F C R		ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Budg	et Su	ib Ac	tivity		C70	0000		<b>Num</b> ire Sy									Item	Nun	nber /		[DOD		SL	
O F C R SERVAII-up Rounds Prior Years Deliveries	(Units in Each)	PRIOR TO 1 OCT	DUE AS OF	0	N				Fieral V						,						C70	100 <i>l</i>						
O F C R P SER		PRIOR TO 1 OCT	DUE AS OF	0	N				1 13041 10	ear 2014											Fiscal Ye							
All-up Rounds Prior Years Deliveries	RVICE QIY	2013		Ť	o V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J	A U	S E P	O C T	N O V	D E C	J A N	F E	M A R	A P	M A Y	J U N	J U	A U G	S E P	ВА
Prior Years Deliveries			1001	ı	V	C	N	В	R	R	Y	N	L	G	Р	ı	V	C	N	В	ĸ	R	Y	N	L	G	Р	L
	s: 62813																											
		-	321								A -	-	-	-	-	-	_	_	-		-	-	-	_	-	-		3:
1 2014 AF (‡)		-	690								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
1 2014 FMS		-	1,654								Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,6
1 2014 Total		-	2,665								_	-	_	-	_	-	-	_	_		-	-	_	-	_	-	-	2,6
1 2015 ARMY		-	231																				Α -	-	-	-	-	2
1 2015 AF (‡)	1,525	-	1,525																				Α -	-	-	-	-	1,5
1 2015 _{FMS} (		_	750																				Α -	-	-	-	-	7:
1 2015 Total		-	2,506																				_	_	_	_		2,5
1 2016 ARMY		-	113																									1
1 2016 AF (‡)		-	5,252																									5,2
1 2016 _{FMS} (	-, -		500																									5,2
1 2016 Total		-	5,865																									5,8
2 2016 ARMY		_	270																									2
AKWI	1 270	-	210	0	N	D	J	F	м	Α	М	J	J	A	s	0	N	D	J	F	М	Α	М	J	J	Α	s	В
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LI C70000 - Hellfire Sys Summary Army

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			-21, Pro																							ruary					
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C R O #		FY	SERVICE	PROC QTY	OCT 2015	AS OF 1 OCT	C T	0 V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	C T	0 V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	A L
		ounds																													
Prior	Yea	ars De	liveries: 6281	3																											
1	2	2014	ARMY	321	-	321	-	-	-	-	-	-	-	27	27	27	27	27	27	27	27	27	26	26	26						-
1	2	2014	AF ^(‡)	690	-	690	-	-	-	-	-	-	-	58	58	58	58	58	58	57	57	57	57	57	57						-
1	2	2014	FMS (‡)	1,654	-	1,654	-	-	-	-	-	-	-	138	138	138	138	138	138	138	138	138	138	137	137						-
1	2	2014	Total	2,665	-	2,665	-	-	-	-	-	-	-	223	223	223	223	223	223	222	222	222	221	220	220						-
1	2	2015	ARMY	231	-	231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	20	19	19	13
1	2	2015	AF ^(‡)	1,525	-	1,525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	127	127	127	127	127	89
1	2	2015	FMS (‡)	750	-	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	63	63	63	63	43
1	2	2015	Total	2,506	-	2,506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	210	210	209	209	1,45
1	2	2016	ARMY (I)	113	-	113								Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11:
1	2	2016	AF ^(‡)	5,252	-	5,252								Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,25
1	2	2016	FMS (‡) (II)	500	-	500								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50
1	2	2016	Total	5,865	-	5,865								-	-	-	-	-	-	-	-	-	-	-	-	- 1	-	-	-	-	5,86
2	2	2016	ARMY (III)	270	-	270								Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27
							0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	S	В
							C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	O C T	0 V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	A L

LI C70000 - Hellfire Sys Summary Army

032A / 0	Cost EI (Units in	ements n Each)	t Acti	vity /	Budg	et Su	ıb Ac	ivitv:														Date						
F R FY		n Each)						<b>.</b>			<b>Line I</b> 0000 /											C70		LASE	R HE	[ <b>DOI</b> ELLFI	<b>DIC]:</b> RE M	SL
F R FY										Fiscal Ye	ear 2018											Fiscal Ye	ar 2019					
F R FY			ACCEPT					_				Ca	lendar '	Year 201	8								Calen	dar Year	r 2019			
	SERVICE	PROC QTY	PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	Z C C	T C L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J J	A U G	S E P
All-up Rounds		-													_										l			
Prior Years De	eliveries: 6281	3																										
1 2014	ARMY	321	321	-																								
1 2014	AF ^(‡)	690	690	-																								
1 2014	FMS ^(‡)	1,654	1,654	-																								
1 2014	Total	2,665	2,665	-																								
1 2015	ARMY	231	98	133	19	19	19	19	19	19	19																	
1 2015	AF ^(‡)	1,525	635	890	127	127	127	127	127	127	128																	
1 2015	FMS (‡)	750	315	435	63	62	62	62	62	62	62																	
1 2015	Total	2,506	1,048	1,458	209	208	208	208	208	208	209																	
1 2016	ARMY (I)	113	-	113	-	-	-	-	-	-	-	10	10	10	10	10	9	9	9	9	9	9	9					
1 2016	AF ^(‡)	5,252	-	5,252	-	-	-	-	-	-	-	438	438	438	438	438	438	438	438	437	437	437	437					
1 2016	FMS (‡) (II)	500	-	500	-	-	-	-	-	-	-	42	42	42	42	42	42	42	42	41	41	41	41					
1 2016	Total	5,865	-	5,865	-	-	-	-	-	-	-	490	490	490	490	490	489	489	489	487	487	487	487					
2 2016	ARMY (III)	270	-	270	-	-	-	-	-	-	-	23	23	23	23	23	23	22	22	22	22	22	22					
		•			O C T	N O V	D E C	J A N	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

LI C70000 - Hellfire Sys Summary Army

Exhibit P-21, Production Schedule: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 20	P-1 Line Item Number / Title: C70000 / Hellfire Sys Summary	Item Number / Title [DODIC]: C70100 / LASER HELLFIRE MSL (BASIC/IHW/HFII)

		Product	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
MFR					_	Initi	al			Reo	rder	
Ref #	MFR Name - Location	MSR For 2016	1-8-5 For 2016	MAX For 2016	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	HELLFIRE Sys Limited Liability - Orlando	1,200	4,080	7,000	6	3	24	27	5	3	24	27
2	HF Sys Limited Liability - Orlando	1,200	4,080	7,000	6	3	24	27	5	3	24	27

^(‡) 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 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).

### Service/Agency Suffixes:

(I) BASE

(II) BASE

(III) OCO

LI C70000 - Hellfire Sys Summary Army

Exhibit P-40, Budget Line Item Justification: PB 2016 Army **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

Missile System

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

**Program Elements for Code B Items:** Other Related Program Elements: 0605450A

Line Item MDAP/MAIS Code:	Item MD	AP/MAIS Cod	l <b>e(s)</b> : 355									
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	286	372	475	500	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	-	-	-	27.738	-	27.738	57.466	151.619	109.932	128.584	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	-	-	-	27.738	-	27.738	57.466	151.619	109.932	128.584	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	27.738	-	27.738	57.466	151.619	109.932	128.584	Continuing	Continuing
(The following	Resource Sum	mary rows are fo	or informational p	ourposes only. Th	ne corresponding	budget request	s are documente	d elsewhere.)			ĺ	
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	200.930	407.578	231.436	257.168	Continuing	Continuing

## **Description:**

The Joint Air-to-Ground Missile (JAGM) program is an Army led pre-Major Defense Acquisition Program (MDAP) with joint interest with the U.S. Marine Corps (USMC) and U.S. Navy. The JAGM mission is to develop the next generation of aviation launched missiles to replace the HELLFIRE laser and Longbow radar missiles. 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.

Secondar	y Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	286	372	475	500
	Total Obligation Authority	-	-	27.738	-	27.738	57.466	151.619	109.932	128.584
Total:	Quantity	-	-	-	-	-	286	372	475	500
Secondary Distribution	Total Obligation Authority	-	-	27.738	-	27.738	57.466	151.619	109.932	128.584

**UNCLASSIFIED** Page 1 of 3

Exhibit P-40, Budget Line Item Justification: PB 2016 Army Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

Missile System

**Program Elements for Code B Items:** 

Other Related Program Elements: 0605450A

Line Item MDAP/MAIS Code:

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

Item MDAP/MAIS Code(s): 355

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)
C70302 / Joint Air-to-Ground MSLS (JAGM)	P-5		- / -	- / -	- / -	- / 27.738	- / -	- /27.738
Total Gross/Weapon System Cost			- 1 -	- 1 -	- 1 -	- / 27.738	- 1 -	- / 27.738

*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 add due to rounding.

#### Justification:

Fiscal Year (FY) 2016 base procurement dollars in the amount of \$27.738 million is Advance Procurement that supports the acquisition of long lead components for FY 2017 production.

The JAGM Product Office is the procurement agent for all services. The Army maintains funding, program management, contracting and acquisition oversight for all aspects of the JAGM program including configuration control of the missile specification, qualification of the missile and lifecycle management. Army Acquisition Objective is 20,303.

"In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this items 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."

							UI	NCLAS	SIFIE	כ								
Exhibit P-5, Cost	Analysi	s: PB 2	016 Army	/										Date: F	ebruary	2015		
Appropriation / E 2032A / 02 / 20	Budget A	ctivity	Budget	Sub Act	ivity:		<b>Line Iten</b> 302 / Joir			: MSLS (JA	AGM)					Title [DO Air-to-Gro	DIC]: ound MSL	S
ID Code (A=Service Rea	dy, B=Not Serv	ice Ready) :							М	DAP/MAIS	Code:	355						
	Resource	Sumn	nary			Prior Ye	ars	FY 20	014	FY	2015	FY	2016 Bas	se F	Y 2016	осо	FY 2016	Total
Procurement Quantity (Ur	its in Each)						-		-			-		-		-		-
Gross/Weapon System C	ost (\$ in Millior	ns)					-		-			-	27	7.738		-		27.738
Less PY Advance Procur	ement (\$ in Mi	llions)					-		-			-		-		-		-
Net Procurement (P1) (\$ i	n Millions)						-		-			-	27	7.738		-		27.738
Plus CY Advance Procure	ement (\$ in Mi	llions)					-		-			-		-		-		-
Total Obligation Author	ty (\$ in Million	s)					-		-			-	27	7.738		-		27.738
(7	he following	Resource S	Summary rov	vs are for info	ormational p	ourposes onl	ly. The corres	ponding bud	dget reques	ts are docume	ented else	where.)						
Initial Spares (\$ in Millions)							-		-			-		-		-		-
Gross/Weapon System U	nit Cost (\$ in	Thousands)					-		-			-		-		-		-
Note: Subtotals or Totals	in thin Evhibit	D E mov	act he event	or add dua te	rounding													
Note. Subtotals of Totals		Prior Yea	_	add, dde to	FY 2014	_		FY 2015		FY	′ 2016 Ba	se	F	/ 2016 OC	0	F	Y 2016 Tota	 al
Cost Elements	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost
Flyaway Cost	(\$19	(Luon)	(\$10)	(479	(Lucii)	(0 111)	(\$75)	(Luon)	(\$ 10.7)	(\$75)	(Lucii)	(0 111)	(0.0)	(Luon)	(0 111)	(010)	(Eddin)	(\$ 111)
Recurring Cost																		
Millimeter Wave Assembly	-	-	-	-	-	-	-	-	-	16.647	286	4.761	-	-	-	16.647	286	4.761
HELLFIRE Backend	-	-	-	-	-	-	-	-	-	80.339	286	22.977	-	-	-	80.339	286	22.977
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	27.738		-	-	-	-	27.738
Subtotal: Flyaway Cost	-	-	-	-	-	-	-	-	-	-	-	27.738	-	-	-	-	-	27.738
Gross/Weapon System Cost	-	-	_	-	-	-	-	-	-	-	-	27.738	-	-	_	-	-	27.738
									ĺ			FY 2	0016		FY 2016		FY 201	<u> </u>
	Sec	ondary D	istribution	ı			FY	2014		FY 2015		Ba			OCO		Total	В
Army		Qı	antity						-		-		-			-		-
			tal Obligation A	Authority					-		-		27.738	3		-		27.738
Total: Secondary Distribution		_	antity	A 41 14					-		-		-			-		-
		То	tal Obligation	Authority					-		-		27.738	5		-		27.738

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

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Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

CC0007 / Javelin (AAWS-M) System Summary

Assault Missile Sys

**Program Elements for Code B Items:** 

Other Related Program Elements: 0604611A

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

Line Item MDAP/MAIS Code:	Item MD	AP/MAIS Cod	<b>e(s):</b> 280									
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	27,079	564	311	331	-	331	306	290	263	594	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	4,403.262	110.510	72.877	77.163	-	77.163	74.218	72.919	69.044	128.278	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	100.622	-	-	-	-	-	-	-	-	-	-	100.622
Net Procurement (P1) (\$ in Millions)	4,302.640	110.510	72.877	77.163	-	77.163	74.218	72.919	69.044	128.278	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	100.622	-	-	-	-	-	-	-	-	-	-	100.622
Total Obligation Authority (\$ in Millions)	4,403.262	110.510	72.877	77.163	-	77.163	74.218	72.919	69.044	128.278	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	g budget request	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	162.608	195.940	234.331	233.121	-	233.121	242.542	251.445	262.525	215.956	Continuing	Continuing

## Description:

Javelin provides the United States Army and United States Marine Corp (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 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.

Seconda	ry Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	427	311	331	-	331	306	290	263	594
	Total Obligation Authority	91.700	72.877	77.163	-	77.163	74.218	72.919	69.044	128.278
ANG	Quantity	137	-	-	-	-	-	-	-	-
	Total Obligation Authority	18.810	-	-	-	-	-	-	-	-
Total:	Quantity	564	311	331	-	331	306	290	263	594
Secondary Distribution	Total Obligation Authority	110.510	72.877	77.163	-	77.163	74.218	72.919	69.044	128.278

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Exhibit P-40, Budget Line Item Justification: PB 2016 Army

**Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

CC0007 / Javelin (AAWS-M) System Summary

Assault Missile Sys

Program Elements for Code B Items:

Other Related Program Elements: 0604611A

Line Item MDAP/MAIS Code:

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

Item MDAP/MAIS Code(s): 280

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)				
H06102 / JAVELIN (AAWS-M)	P-5, P-5a, P-21		27,079 / 4,403.262	564 / 110.510	311 / 72.877	331 / 77.163	- / -	331 / 77.163
Total Gross/Weapon System Cost			27,079 / 4,403.262	564 / 110.510	311 / 72.877	331 / 77.163	- 1 -	331 / 77.163

*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 add due to rounding.

#### Justification:

FY 16 Base procurement dollars in the amount of \$77.163 million support the procurement of 331 Missiles.

The estimated missile unit prices in FY15 and out are based on combined United States Army, other services, and FMS procurements of 850 missiles per year. The increase in unit cost from FY14 to FY15 is because the estimated missile unit price for FY14 was based on a combined quantity of 1000 missiles per year, but FY15 and out are based on a combined quantity of 850 missiles per year.

The P-40 Breakdown Quantity line in FY20 of 594 includes 294 missiles and 300 Lightweight Command Launch Units (CLU). Army Acquisition Objective is 7,407 (CLUs).

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

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Exhibit P-5, Cost Analysis: PB 2016 Army

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

Date: February 2015

Item Number / Title [DODIC]:
CC0007 / Javelin (AAWS-M) System Summary

H06102 / JAVELIN (AAWS-M)

EV 2014

Drior Voars

162.608

MDAP/MAIS Code:280

EV 2015

234.331

EV 2016 Rasa

233.121

EV 2016 OCO

EV 2016 Total

233.121

Resource Summary	Piloi feats	F1 2014	F1 2015	F1 2010 Dase	F1 2016 OCO	F1 2010 10tai
Procurement Quantity (Units in Each)	27,079	564	311	331	-	331
Gross/Weapon System Cost (\$ in Millions)	4,403.262	110.510	72.877	77.163	-	77.163
Less PY Advance Procurement (\$ in Millions)	100.622	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	4,302.640	110.510	72.877	77.163	-	77.163
Plus CY Advance Procurement (\$ in Millions)	100.622	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	4,403.262	110.510	72.877	77.163	-	77.163
(The following Resource Summary rows are for information	tional purposes only. The co	responding budget request	s are documented elsewhe	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-

195.940

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

Resource Summary

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

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

	P	rior Years	5		FY 2014			FY 2015		FY	2016 Bas	e	FY	′ 2016 OC	0	FY	2016 Tot	.al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost												
yaway Cost					,			,			'							
Recurring Cost																		
All Up Round ^(†)	99.332	27,221	2,703.909	159.621	427	68.158	174.376	311	54.231	175.683	331	58.151	-	-	-	175.683	331	58
Engineering Services	-	-	159.215	-	-	8.890	-	-	6.513	-	-	6.738	-	-	-	-	-	6
Engineering Change Orders	-	-	11.738	-	-	0.068	-	-	0.059	-	-	0.059	-	-	-	-	-	(
Acceptance Testing	-	-	56.377	-	-	0.816	-	-	0.974	-	-	0.985	-	-	-	-	-	(
Fielding	-	-	20.944	-	-	0.011	-	-	-	-	-	-	-	-	-	-	-	
Project Management	-	-	129.154	-	-	8.219	-	-	6.625	-	-	6.701	-	-	-	-	-	
Production Engineering	-	-	96.469	-	-	5.480	-	-	4.417	-	-	4.469	-	-	-	-	-	
Publications/Technical Data	-	-	2.563	-	-	0.058	-	-	0.058	-	-	0.060	-	-	-	-	-	
Command Launch Unit	106.786	7,771	829.832	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CLU Engineering Services	-	-	40.214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CLU Engineering Change Orders	-	-	3.438	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CLU Fielding	-	-	53.396	-	-	0.616	-	-	-	-	-	-	-	-	-	-	-	
CLU Retrofits	138.788	1,513	209.986	132.803	137	18.194	-	-	-	-	-	-	-	-	-	-	-	
Field Tactical Trainers	18.228	2,481	45.223	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Basic Skills Trainer	15.554	599	9.317	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Ī

Exhibit P-5, Cost Analysis: PB 2016 Army

Date: February 2015

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)

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

MDAP/MAIS Code:280

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

	P	rior Years	<b>;</b>		FY 2014			FY 2015		FY	' 2016 Bas	se	F۱	/ 2016 OC	0	FY	2016 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Missile Simulation Round	0.434	4,308	1.870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Training Devices Fielding	-	-	5.668	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPBST Retrofits	27.000	51	1.377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less: Prior Year Adv Proc	-	-	-100.622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plus P-1 CY Adv Proc	-	-	100.622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Initial Spares	-	-	22.562	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	4,403.262	-	-	110.510	-	-	72.877	-	-	77.163	-	-	-	-	-	77.1
ıbtotal: Flyaway Cost	-	-	4,403.262	-	-	110.510	-	-	72.877	-	-	77.163	-	-	-	-	-	77.1
ross/Weapon System	162.608	27,079	4,403.262	195.940	564	110.510	234.331	311	72.877	233.121	331	77.163	_	-	_	233.121	331	77.1

Secondar	y Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Army	Quantity	427	311	331	-	331
	Total Obligation Authority	91.700	72.877	77.163	-	77.163
ANG	Quantity	137	-	-	-	-
	Total Obligation Authority	18.810	-	-	-	-
Total:	Quantity	564	311	331	-	331
Secondary Distribution	Total Obligation Authority	110.510	72.877	77.163	-	77.163

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2016 A	Army	Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
2032A / 02 / 30	CC0007 / Javelin (AAWS-M) System Summary	H06102 / JAVELIN (AAWS-M)

Cost Elements	0 C 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	_	Date Revision Available	RFP Issue Date
All Up Round ^(†)		2014	JJV All Up Round / Tucson AZ Orlando FL	SS/FFP	AMCOM, Redstone Arsenal, AL	Jun 2014	May 2016	427	159.621	N		
All Up Round ^(†)		2015	JJV All Up Round / Tucson AZ Orlando FL	SS / FFP	AMCOM, Redstone Arsenal, AL	Apr 2015	Feb 2017	311	174.376	N		
All Up Round ^(†)		2016	JJV All Up Round / Tucson AZ Orlando FL	SS / FFP	AMCOM, Redstone Arsenal, AL	Mar 2016	Feb 2018	331	175.683	N		

^(†) 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. The estimated missile unit price for FY14 was based on a combined quantity of 1000 missiles per year. 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.

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xh	ibit I	P-21, Pr	oducti	on Sc	hedul	e: PE	3 201	6 Arm	ıy														Date	: Feb	ruary	2015	5			
		<b>iation /</b> 02 / 30	Budge	t Acti	vity /	Budç	get Su	ıb Ac	tivity	:	- 1		Item / Jave					n Sum	nmary	,				<b>Num</b> 102 / .						
			lements in Each)								Fiscal Y	ear 2014											Fiscal Ye	ear 2015						
T.,				ACCEPT									C	alendar	Year 201	4								Calen	dar Year	2015				
M F R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	E A
Up	Round														,				,	,										
or	Years D	eliveries: 272																												
1	_	ARMY	427	-	427									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	2014	MC ^(‡)	336	-	336									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	2014	FMS (‡)	75	-	75									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	2014	Total	838	-	838									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1	2015	ARMY	311	-	311																			Α -	-	-	-	-	-	
1	2015	MC ^(‡)	90	-	90																			A -	-	-	-	-	-	
1	2015	FMS (‡)	449	-	449																			Α -	-	-	-	-	-	
1	2015	Total	850	-	850																			-	-	-	-	-	-	
1	2016	ARMY	331	-	331																									
1	2016	FMS (‡)	519	-	519																									
1	2016	Total	850	-	850																									
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J J	J U	A U G	S E P	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J	J U L	A U G	S E P	1

		P-21, Pro							-										_					: Feb						
		<b>iation /</b> 1 02 / 30	Budge	et Acti	vity /	Budg	get Sı	ıb Ac	tivity	:			Item   / Jave				ystem	Sum	mary					<b>Num</b> 102 / 、						
		Cost El (Units i	ements n Each)								Fiscal Y	ear 2016										F	Fiscal Y	ear 2017						
Τ.				ACCEPT									Ca	alendar \	ear 201	6								Calen	dar Year	2017				
M F R		SERVICE	PROC QTY	PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U	A U G	S E P	
	Round	'										1													'					_
ior	_	eliveries: 2722																												_
1	_	ARMY	427	-	427	-	-	-	-	-	-	-	11	61	61	72	72	72	72	6	-	-	-	-						L
1	2014	IWIO	336	-	336	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66	72	72	72	54						L
1	2014	FMS (‡)	75	-	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	57	-	-						L
1	2014	Total	838	-	838	-	-	-	-	-	-	-	11	61	61	72	72	72	72	72	90	129	72	54						
1	2015	ARMY	311	-	311	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	70	71	71	29	-	-	-	L
1	2015	MC ^(‡)	90	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	48	-	-	
1	2015	FMS (‡)	449	-	449	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	71	71	
1	2015		850	-	850	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	70	71	71	71	71	71	71	
1	2016	ARMY	331	-	331						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	L
1	2016	FMS (‡)	519	-	519						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	L
1	2016	Total	850	-	850						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J L	A U G	S E P	

All Up Round  Prior Years Deliveries: 27221  1 2014   ARMY   427   427   -	CC0007 / Javelin (AAWS-M) System Summary H06102 / JAVELIN (ĀAWS-M)  Cost Elements (Units in Each)  Fiscal Year 2018  Fiscal Year 2019  Calemants  Fiscal Year 2018  Fiscal Year 2019  Calemants  Fiscal Year 2019  Fiscal Year 2019  Fiscal Year 2019  Calemants  Fiscal Year 2019  Fiscal Ye
Column   C	ACCEPT   PROC   SERVICE   PROC   SERVICE   S
A C C F   F V	ACCEPT   PRIOR   TOTAL   PRIOR   SERVICE   PRIOR   TOTAL   PRIOR   TOTAL   PRIOR   P
O F C C R FY SERVICE PROC OCT AS OF C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E E C O E A E A P A U U U U E E C O E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U E E C O E E A E A P A U U U U U E E C O E E A E E A P A U U U U U E E C O E E A E E A P A U U U U U E E C C O E E A E E A P P A U U U U U E E C C O E E A E E A P P A U U U U U E E C C O E E A E E A P P A U U U U U E E C C O E E A E E A P P A U U U U U E E C C O E E A E E A P P A U U U U U E E C C O E E A E E A P P A U U U U U E E C C O E E A E E A P P A U U U U U E E C C O E E A E E A P P A U U U U U E E C C O E E A E E A E A P P A U U U U U E E C C O E E A E E A P P A U U U U U E E C C O E E A E E A P P A U U U U U E E C C O E E A E E A P P A U U U U U E E C C O E E A E E A E A P P A U U U U U E E C C O E A E E A E A P A A U U U U U E E C C O E A E E A E A P A A U U U U U E E C C O E A E E A E A P A A U U U U U E E C C O E A E E A E A P A A U U U U U E E C C O E A E E A E A E A P A A U U U U U U E E C C O E A E E A E A E A P A A U U U U U E E C C O E A E E A E E A E A E A E A P A A U U U U U E	PRIOR   PRIO
FY   SERVICE   QTY   2017   1 OCT   T   V   C   N   B   R   R   Y   N   L   G   P   T   V   C   N   B   R   R   Y   N   L   G   P	SERVICE QTY 2017 1 OCT T V C N B R R Y N L G P T V C N B R R Y N L G P DEIVENIES: 27221  4 ARMY 427 427 - 4 MC(\$^{\circ}\$) 336 336 - 4 MC(\$^{\circ}\$) 75 75 - 4 MC(\$^{\circ}\$) 888 838 - 5 MC(\$^{\circ}\$) 90 90
Prior Years Deliveries: 27221  1 2014 RMY	Deliveries: 27221  4 ARMY
1 2014 ARMY 427 427 - 1 2014 MC (\$\frac{1}{4}\$) 336 336 - 1 2014 FMS (\$\frac{1}{4}\$) 75 75 - 1 2014 Total 838 838 - 1 2015 ARMY 311 311 1 2015 MC (\$\frac{1}{4}\$) 90 90 1 2015 FMS (\$\frac{1}{4}\$) 165 284 71 71 71 71 71 71 71 71 71 71 71 71 71	4 ARMY 427 427 - 4 MC (t) 336 336 - 4 MC (t) 75 75 - 5 MC (t) 90 90
1 2014 FMS(\$\frac{1}{4}\$) 336 336 -    1 2014 FMS(\$\frac{1}{4}\$) 75 75 -    1 2014 Total 838 838 -    1 2015 ARMY 311 311	4 MC(\$) 336 336 - 4 4 FMS(\$^{+}\$) 75 75 - 5 4 TOTAL 838 838 - 5 5 ARMY 311 311
1 2014 FMS (‡) 75 75 -  1 2014 Total 838 838 -  1 2015 MC (‡) 90 90  1 2015 FMS (‡) 449 165 284 71 71 71 71 71  1 2016 ARMY 331 - 331 71 71 71 71 71 71 71 71 71 71 71 70 70  1 2016 FMS (‡) 519 - 519 24 71 71 71 71 71 71 70 70  1 2016 Total 850 - 850 71 71 71 71 71 71 71 71 71 71 71 70 70	4 FMS (‡) 75 75 - 4 TOTAL 838 838 - 5 ARMY 311 311
1 2014 Total 838 838 - 1	4 Total 838 838 -
1 2015 ARMY 311 311	5 ARMY 311 311 5 MC (#) 90 90
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1 2015 FMS (‡) 449 165 284 71 71 71 71 71  1 2015 Total 850 566 284 71 71 71 71 71  1 2016 ARMY 331 - 331 71 71 71 71 47	5 FMS (‡) 449 165 284 71 71 71 71 71  5 Total 850 566 284 71 71 71 71  6 ARMY 331 - 331 71 71 71 71 71 71 71 71 71 71 71 71 71
1 2015 Total 850 566 284 71 71 71 71 71 71 71 2016 ARMY 331 - 331 71 71 71 71 71 71 71 71 71 71 71 70 70 1 2016 Total 850 - 850 71 71 71 71 71 71 71 71 71 71 71 71 70 70 1 2016 Total 850 - 850 71 71 71 71 71 71 71 71 71 71 71 70 70 70 1 2016 Total 850 - 850 71 71 71 71 71 71 71 71 71 71 71 71 70 70 70 70 70 70 70 70 70 70 70 70 70	5 Total 850 566 284 71 71 71 71 71 6 ARMY 331 - 331 71 71 71 71 71 71 71 71 71 71 71 70 70 6 Total 850 - 850 71 71 71 71 71 71 71 71 71 71 71 70 70 70 70 70 70 70 70 70 70 70 70 70
1 2016 ARMY 331 - 331 71 71 71 71 47	6 ARMY 331 - 331 71 71 71 71 47
1 2016 FMS (‡) 519 - 519 24 71 71 71 71 70 70  1 2016 Total 850 - 850 71 71 71 71 71 71 71 71 71 70 70  O N D J F M A M J J A S O N D J F M A M J S A S O N D J F M A M J J A S	6 FMS (1) 519 - 519 24 71 71 71 71 70 70 6 Total 850 - 850 71 71 71 71 71 71 71 71 71 70 70
1 2016 Total 850 - 850 71 71 71 71 71 71 71 71 71 71 70 70  O N D J F M A M J J A S O N D J F M A M J S S	6 Total 850 - 850 71 71 71 71 71 71 71 71 71 71 71 70 70
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LI CC0007 - Javelin (AAWS-M) System Summary Army

Exhibit P-21, Production Schedule: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
2032A / 02 / 30	CC0007 / Javelin (AAWS-M) System Summary	H06102 / JAVELIN (AAWS-M)

		Product	tion Rates (Each /	Month)				Procurement Lea	adtime (Months)			
MFR						Init	ial			Reo	rder	
Ref #	MFR Name - Location	MSR For 2016	1-8-5 For 2016	MAX For 2016	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
	JJV All Up Round - Tucson AZ Orlando FL	850	3,960	6,480	11	3	22	25	1	1	22	23

### 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. Production rates are yearly rates.

^(‡) 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 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).

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C59300 / TOW 2 System Summary

Assault Missile Sys

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Cod	de B Items:			Other Relate	d Program El	ements:		
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	165,551	988	1,008	1,704	-	1,704	743	486	518	487	-	171,485
Gross/Weapon System Cost (\$ in Millions)	3,119.602	69.255	70.333	107.509	-	107.509	85.475	68.397	74.001	74.339	-	3,668.911
Less PY Advance Procurement (\$ in Millions)	117.357	19.901	19.965	19.984	-	19.984	-	-	-	-	-	177.207
Net Procurement (P1) (\$ in Millions)	3,002.245	49.354	50.368	87.525	-	87.525	85.475	68.397	74.001	74.339	-	3,491.704
Plus CY Advance Procurement (\$ in Millions)	137.258	19.965	19.984	-	-	-	-	-	-	-	-	177.207
Total Obligation Authority (\$ in Millions)	3,139.503	69.319	70.352	87.525	-	87.525	85.475	68.397	74.001	74.339	-	3,668.911
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	g budget requests	are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	18.844	70.096	69.775	63.092	-	63.092	115.040	140.735	142.859	152.647	-	21.395

### **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 in Operation Enduring Freedom (OEF) 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 precision 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), and the M220A2 TOW 2 launcher. The USMC employs the TOW missile from its ITAS launchers, Light Armor Vehicle Anti-tank and AH-1W Cobra helicopters. The TOW missile provides the Warfighter with a highly lethal, cost effective, interoperable, multi-purpose weapon.

Secondar	ry Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	988	1,008	1,704	-	1,704	743	486	518	487
	Total Obligation Authority	69.319	70.352	87.525	-	87.525	85.475	68.397	74.001	74.339
Total:	Quantity	988	1,008	1,704	-	1,704	743	486	518	487
Secondary Distribution	Total Obligation Authority	69.319	70.352	87.525	-	87.525	85.475	68.397	74.001	74.339

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Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C59300 / TOW 2 System Summary

Assault Missile Sys

ID Code (A=Service Ready, B=Not Service Ready) :	Pro	gram	Elements for Code	B Items:	Ot	her Related Program I	Elements:	
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)			
C59403 / TOW Family of Missiles	P-5, P-5a, P-21		165,551 / 3,119.602	988 / 69.255	1,008 / 70.333	1,704 / 107.509	- / -	1,704 / 107.509
Total Gross/Weapon System Cost			165,551 / 3,119.602	988 / 69.255	1,008 / 70.333	1,704 / 107.509	- 1 -	1,704 / 107.509

*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 add due to rounding.

### Justification:

FY 2016 Base procurement dollars in the amount of \$87.525 million supports the fifth year of the current five-year (FY12-16) multi-year contract.

The current FY12-16 multi-year contract procures 6,052 TOW missiles. The FY12 procurement quantity was 1,104. The FY13 quantity was 1,396. The FY14-16 procurement quantities are as given above.

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 components 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 leverage any price advantage created through contract negotiations, other service procurement, and/or foreign military sales into a buy-to-budget procurement strategy.

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Exhibit P-5, Cost	Analysis	: PB 20	16 Army	,										Date: F	ebruary :	2015		
Appropriation / B 2032A / 02 / 30	Budget A	ctivity /	Budget	Sub Acti	ivity:			Number N 2 Syste							umber / TOW F			
ID Code (A=Service Read	dy, B=Not Servi	ce Ready) :				'			М	DAP/MAIS	Code:							
F	Resource	Summ	ary		F	Prior Ye	ars	FY 20	14	FY	2015	FY	2016 Bas	se F	Y 2016 (	осо	FY 2016	Total
Procurement Quantity (Uni	its in Each)						165,551		988		1,0	008		1,704		-		1,70
Gross/Weapon System Co	ost (\$ in Million	s)				3	3,119.602		69.255		70.3	333	10	7.509		-		107.5
Less PY Advance Procure	ement (\$ in Mil	lions)					117.357		19.901		19.9	965	1	9.984		-		19.9
Net Procurement (P1) (\$ ir	n Millions)					3	3,002.245		49.354		50.3	368	8	7.525		-		87.5
Plus CY Advance Procure	ment (\$ in Mil					137.258		19.965		19.9	984		-		-		-	
Total Obligation Authori	ty (\$ in Millions	:)				3	,139.503		69.319		70.3	352	8	7.525		-		87.52
(Ti	he following l	Resource St	ummary row	s are for info	rmational pu	irposes onl	y. The corres	ponding budg	et request	s are docume	ented elsev	vhere.)						
Initial Spares (\$ in Millions)							-		-			-		-		-		-
Gross/Weapon System Ur	nit Cost (\$ in 1	Thousands)					18.844		70.096		69.7	775	6	3.092		-		63.09
Note: Subtotals or Totals i		P-5 may no		or add, due to	rounding.			FY 2015		EV	′ 2016 Ba			Y 2016 O	<u></u>		/ 2016 Tota	
	Unit Cost	Qty	Total Cost	Unit Cost	Qty	Total Cost	Unit Cost	Qty	Total Cost	Unit Cost	Qty	Total Cost	Unit Cost	Qty	Total Cost	Unit Cost	Qty	Total Cost
Cost Elements	(\$ K)	(Each)	(\$ M)	(\$ K)	(Each)	(\$ M)	(\$ K)	(Each)	(\$ M)	(\$ K)	(Each)	(\$ M)	(\$ K)	(Each)	(\$ M)	(\$ K)	(Each)	(\$ M)
Flyaway Cost																		
Recurring Cost  Non-Recurring		_	_	_	_	2.000	_	_		_		_	_	_		_	_	
Missile Contract ^(†)	18.519	165,551	3,065.891	58.603	988	57.900		1,008	59.379	67.698	1,704	115.357	_	_		67.698	1,704	115.35
Engineering Services	10.519	-	13.480		-	2.106		-	2.327	-	1,704	2.393	_	_	-	07.090	-	2.39
Acceptance Testing	-	-	2.926	-	-	0.488		-	1.445	-	-	1.524	-	-	_	-	-	1.52
Project Mgt Admin	-	-	17.456	-	-	6.697	-	-	7.163	-	-	8.219	-	-	-	-	-	8.2
Less: Prior Year Adv Proc	-	-	-117.357	-	-	-19.901	-	-	-19.965	-	-	-19.984	-	-	-	-	-	-19.98
PLUS P-1 CY Adv. Proc.		_	137.258	_	_	19.965		_	19.984	_					_	_		
Subtotal: Recurring Cost	-	-	3,119.602	-	-	69.255		-	70.333	-	-	107.509	-	-	-	-	-	107.50
Subtotal: Flyaway Cost	_	-	3,119.602		-	69.255		-	70.333	-	_	107.509		_	-	_	-	107.50
Gross/Weapon System Cost	18.844	165,551	3,119.602	70.096	988	69.255	69.775	1,008	70.333	63.092	1,704			-	-	63.092	1,704	107.50
	Sec	ondary Di	stribution				FY	2014		FY 2015		FY 2 Bas			FY 2016 OCO		FY 201 Total	
Army		Qua	intity					98	8		1,008		1,70	4		-		1,70
		Tota	al Obligation A	uthority				69.31	9		70.352		87.52	5		-		87.52
Total: Secondary Distribution		Qua	intity					98	8		1,008		1,70	4		-		1,70
			I Obligation	A 4 la a wide .				69.25	-1		70.333		107.50	•		_		107.50

LI C59300 - TOW 2 System Summary Army

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Exhibit P-5, Cost Analysis: PB 2016 Army		Date: February 2015
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
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	
2032A / 02 / 30	C59300 / TOW 2 System Summary	C59403 / TOW Family of Missiles

LI C59300 - TOW 2 System Summary Army

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Exhibit P-5a, Procurement History and Planning: PB 2016 Army

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

Date: February 2015

Item Number / Title [DODIC]:
C59300 / TOW 2 System Summary

C59403 / TOW Family of Missiles

2032A / 02 / 30				,59300 / TOW 2 S	ystem Summary			C59403	I TOW Fa	imily o	iviissiies	
Cost Elements	0 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
Missile Contract ^(†)		2014	Raytheon / Tucson, AZ	SS / FFP	AMCOM, Redstone Arsenal, AL	Nov 2013	Nov 2015	988	58.603	N		
Missile Contract ^(†)		2015	Raytheon / Tucson, AZ	SS/FFP	AMCOM, Redstone Arsenal, AL	Dec 2014	Jul 2016	1,008	58.908	N		
Missile Contract ^(†)		2016	Raytheon / Tucson, AZ	SS/FFP	AMCOM, Redstone Arsenal, AL	Dec 2015	Dec 2017	1,704	67.698	N		
Advance Procurement											`	
Warhead		2014	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2014	Aug 2015	7	-			
Warhead		2015	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2015	Aug 2016	7	-			
Launch Motor		2014	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2014	Mar 2015	1	-			
Launch Motor		2015	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2015	Mar 2016	1	-			
Flight Motor		2014	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2014	Jan 2015	0	-			
Flight Motor		2015	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2015	Jan 2016	0	-			
2B Sensor		2014	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2014	Jul 2015	9	-			
2B Sensor		2015	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2015	Jul 2016	9	-			
Gyro		2014	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2014	Feb 2015	2	-			
Gyro		2015	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2015	Feb 2016	2	-			
Flight Motor Case Kit		2014	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2014	Jan 2015	0	-			
Flight Motor Case Kit		2015	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2015	Jan 2016	0	-			
Control Surface Actuators		2014	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2014	Feb 2015	1	-			
Control Surface Actuators		2015	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2015	Feb 2016	1	-			
Beacon Shutter Actuator		2014	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2014	Jan 2015	1	-			
Beacon Shutter Actuator		2015	See End Item P-5A/ NA / See End Item P-5A	Various	See End Item P-5A	Jan 2015	Jan 2016	1	-			

^(†) indicates the presence of a P-21

LI C59300 - TOW 2 System Summary Army

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	ONOLAGOII ILD	
Exhibit P-5a, Procurement History and Planning: PB 201	6 Army	Date: February 2015
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
Remarks: Raytheon is currently the only industry source that is both facilitized and qualified to p	oroduce TOW missiles	
AMCOM Aviation Missile Command FFP Firm Fixed Price MY Multi-Year		
FY16 is the fifth year of a five year multi-year.		

LI C59300 - TOW 2 System Summary Army

Exh	ibit F	P-21, Pro	ducti	on Sc	hedul	e: Pl	B 201	6 Arm	าy														Date	: Feb	ruary	2015	5			
<b>\</b> pp	ropr	iation / I 02 / 30								:			Item / TOV													<b>Title</b> Fami		OIC]: Missile	es	
		Cost El (Units in T		ı							Fiscal Y	ear 2014											Fiscal Yo	ear 2015						
Ī.,				ACCEPT				_					C	alendar	Year 201	4				_				Calen	dar Yea	2015				
M D F C R D #	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
Missil	e Contra	ict																												
Prior '	Years D	eliveries: 1655	51																											
1	2014	ARMY (IV)	.988	-	.988		Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.98
1	2014	MC (‡) (V)	.946	-	.946		A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.94
1	2014	FMS (‡) (VI)	13.932	-	13.932		Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.93
1	2014	Total	15.866	-	15.866		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.86
1	2015	ARMY (VII)	1.008	-	1.008															A -	-	-	-	-	-	-	-	-	-	1.00
1	2015	MC (‡) (VIII)	.112	-	.112															A -	-	-	-	-	-	-	-	-	-	.11
1	2015		1.120	-	1.120															-	-	-	-	-	-	-	-	-	-	1.12
1	2016	ARMY (IX)	1.704	-	1.704																									1.70
1	2016	MC (‡) (X)	.416	-	.416																									.41
1	2016	Total	2.120	-	2.120																									2.12
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J N	J U L	A U G	S E P	B A L

Ex	hib	it P	-21, Pro	ducti	on Sc	hedul	e: PE	3 2016	3 Arm	у														Date	: Feb	ruary	2015				
			<b>ation / I</b> 2 / 30	Budge	t Acti	vity /	Budg	get Su	ıb Ac	tivity	:		<b>Line</b> 1 300 /					mary								ber / TOW				es	
			Cost El (Units in T		)							Fiscal Ye	ear 2016											Fiscal Ye	ear 2017						
					ACCEPT									Cal	endar \	Year 201	6					_			Calen	dar Year	2017				
0 0 0	R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	n n	A U G	S E P	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U	A U G	S E P	B A L
Mis	ssile Co	ontrac	ct							·								· ·													
Pri	or Yea	rs De	liveries: 1655	51																											
	1 20	014	ARMY (IV)	.988	-	.988	-	.149	.175	.175	.175	.175	.139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1 20	014	MC ^{(‡) (V)}	.946	-	.946	-	-	-	-	-	-	.237	.237	.237	.235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1 20	014	FMS (‡) (VI)	13.932	-	13.932	-	-	-	-	-	-	-	-	-	.327	.327	.327	.304	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	9.490
	1 20	014	Total	15.866	-	15.866	-	.149	.175	.175	.175	.175	.376	.237	.237	.562	.327	.327	.304	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	9.49
	1 20	015	ARMY (VII)	1.008	-	1.008	-	-	-	-	-	-	-	-	-	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084				-
	1 20	015	MC (‡) (VIII)	.112	-	.112	-	-	-	-	-	-	-	-	-	.009	.009	.009	.009	.009	.009	.009	.009	.010	.010	.010	.010				-
	1 20	015	Total	1.120	-	1.120	-	-	-	-	-	-	-	-	-	.093	.093	.093	.093	.093	.093	.093	.093	.094	.094	.094	.094				-
	1 20	016	ARMY (IX)	1.704	-	1.704			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.704
	1 20	016	MC (‡) (X)	.416	-	.416			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.083	.083	.083	.16
	1 20	016	Total	2.120	-	2.120			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.083	.083	.083	1.87
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	n 1	A U G	S E	0 C	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	n n	A U G	S E P	B A

LI C59300 - TOW 2 System Summary

Exh	ibit F	P-21, Pro	oducti	on Sc	hedul	e: PB	2016	3 Arm	y														Date	: Feb	ruary	2015				
		iation / 1 02 / 30	Budge	et Acti	vity /	Budg	et Su	ıb Act	tivity:				<b>Item I</b> TOW				mary								ber / TOW				es	
		Cost E (Units in 7	<b>lements</b> Thousands	)							Fiscal Ye	ear 2018										ı	Fiscal Ye	ear 2019						
				ACCEPT									Ca	lendar \	ear 201	В								Calen	dar Year	2019				
0 F C R O #	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
Missil	Contra	ıct			,								,																	
Prior '	ears De	eliveries: 1655	551																											
1	2014	ARMY (IV)	.988	.988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	2014	MC (‡) (V)	.946	.946	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	2014	FMS (‡) (VI)	13.932	4.442	9.490	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.288	.288	.288	.288	.288	.288	.288	.288	.288	.288	2.59
1	2014	Total	15.866	6.376	9.490	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.287	.288	.288	.288	.288	.288	.288	.288	.288	.288	.288	2.59
1	2015	ARMY (VII)	1.008	1.008	-																									-
1	2015	MC (‡) (VIII)	.112	.112	-																									-
1	2015	Total	1.120	1.120	-																									-
1	2016	ARMY (IX)	1.704	-	1.704	-	-	.142	.142	.142	.142	.142	.142	.142	.142	.142	.142	.142	.142											-
1	2016	MC (‡) (X)	.416	.249	.167	.083	.084	-	-	-	-	-	-	-	-	-	-	-	-											-
1	2016	Total	2.120	.249	1.871	.083	.084	.142	.142	.142	.142	.142	.142	.142	.142	.142	.142	.142	.142											-
						O C	N O	D E	J A	F E	M A	A P	M A	J	Ŋ	A U G	S E	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	IJ	A U	S E P	B A

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														0.1	<b>U</b> L,		FIED	·													
Ex	hi	bit F	P-21, Pro	oducti	on Sc	hedu	le: PE	3 2016	3 Arm	у														Dat	e: Feb	oruary	2015	5			
			iation / 1 02 / 30	Budge	t Acti	vity /	Budg	jet Su	ıb Ac	tivity	:		_		<b>Num</b> / 2 Sy					,						nber / TOW				es	
				ements housands)	ı							Fiscal Ye	ar 2020											Fiscal \	ear 2021						
0 C 0	R	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	alendar J U N	/ear 202 J U L	A U G	S E P	0 C T	N O V	D E C	J A N	F E B	M A R	Caler A P R	M A Y	J U N	J U L	A U G	S E P	B A L
		Contra	ct																	1											
Pric	or Y	ears De	eliveries: 1655	551																											
	1	2014	ARMY (IV)	.988	.988	-	-	-	-	-	-	-	-	-	-																-
	1	2014	MC (‡) (V)	.946	.946	-	-	-	-	-	-	-	-	-	-																-
	1	2014	FMS (‡) (VI)	13.932	11.340	2.592	.288	.288	.288	.288	.288	.288	.288	.288	.288																-
	1	2014		15.866	13.274	2.592	.288	.288	.288	.288	.288	.288	.288	.288	.288																-
	1	2015	ARMY (VII)	1.008	1.008	-			,	,	'	<u>'</u>	,																		-
	1	2015	MC (‡) (VIII)	.112	.112	-																									-
	1	2015	Total	1.120	1.120	-																									-
	1	2016	ARMY (IX)	1.704	1.704	-																									-
	1	2016	MC (‡) (X)	.416	.416	-																									-
	1	2016	Total	2.120	2.120	-																									-
							0	N O	D E	J A	F E	M A	A P	M A	Ŋ	J	A U	S E	O C	N O	D E	J A	F E	M A	A P	M A	Ŋ	Ŋ	A U	S E	B

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Exhibit P-21, Production Schedule: PB 2016 Army		Date: February 2015
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

		Produc	ction Rates (Each	/ Year)				Procurement Lea	adtime (Months)		-	
MFR						Init	ial			Reo	rder	
Ref					ALT	ALT		Total	ALT	ALT		Total
#	MFR Name - Location	MSR For 2016	1-8-5 For 2016	MAX For 2016	Prior to Oct 1	After Oct 1	Mfg PLT	After Oct 1	Prior to Oct 1	After Oct 1	Mfg PLT	After Oct 1
1	Raytheon - Tucson, AZ	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.FY12-16 Army MultiYear: 6052,FY12 USMC: 729; FY13 USMC: 548.FY14 USMC: 886; FY14 OMAN: 137; SANG: 13795. FY15: 1008, FY16: 1704.FY17-FY21 Army: 2745 (FY17: 743, FY18: 486, FY19: 518, FY20: 487, FY21: 511)10 U.S. Code #2431 and DoD Financial Mgt Reg Vol 2B, Ch4 mandate Production Rates be defined in terms of "budget year."

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

### Service/Agency Suffixes:

(IV) BASE

(V) BASE

(VI) BASE

(VII) BASE

(IX) BASE

(X) BASE

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

Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2016 Army

**Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:

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

Assault Missile Sys

C59300 / TOW 2 System Summary

Program Elements for Code B Items:

Other Related Program Elements:

P-1 Line Item Number / Title:

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Gross/Weapon System Cost (\$ in Millions)	137.258	19.965	19.984	-	-	-	-	-	-	-	-	177.207
Net Procurement (P1) (\$ in Millions)	137.258	19.965	19.984	-	-	-	-	-	-	-	-	177.207
Total Obligation Authority (\$ in Millions)	137.258	19.965	19.984	-	-	-	-	-	-	-	-	177.207

### **Description:**

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 in Operation Enduring Freedom (OEF) 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), and the M220A2 TOW 2 launcher. The USMC employs the TOW missile from its ITAS launchers, Light Armor Vehicle Anti-tank and AH-1W Cobra helicopters. The TOW missile provides the Warfighter with a highly lethal, cost effective, interoperable, multi-purpose weapon.

Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

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

Assault Missile Sys

C59300 / TOW 2 System Summary

Program Elements for Code B Items:

Other Related Program Elements:

P-1 Line Item Number / Title:

Exhibits Schedule		Prior Years		FY 2014	FY 2014 FY 2015		FY 2016 OCO	FY 2016 Total	
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)	
C59403 / TOW Family of Missiles	P-10		- / 137.258	- / 19.965	- / 19.984	-/ -	-/ -	-/ -	
Total Gross/Weapon System Cost			- / 137.258	- / 19.965	- / 19.984	-1 -	-1 -	-1 -	

*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 add due to rounding.

### Justification:

There was no funding for advanced procurement in FY2016.

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<b>Exhibit P-10, Advance Procurem</b>	ent Requirements Analy	sis (page 1 - E	Budget Funding Justific	Date: February 2015					
Appropriation / Budget Activity / 2032A / 02 / 30	Budget Sub Activity:		em Number / Title: OW 2 System Summary	P-5 Number / Title: C59403 / TOW Family of Missiles					
First System (2016) Award Date: August 2012	First System (2016) Com March 2014	pletion Date:		Interval Between Syste 12 Months					
TOW Family of Missiles		n Leadtime	Prior Years (Each)	FY 2014 (Each)	FY 2015 (Each)	FY 2016 (Each)			
Quantity			165,551	988	1,008	1,704			
Cost Element	(men			FY 2014 (\$ M)	FY 2015 (\$ M)	FY 2016 (\$ M)			
Other									
Warhead ^(†)		19	57.293	6.999	7.018	-			
Launch Motor ^(†)		14	7.493	0.905	0.905	-			
Flight Motor ^(†)		12	2.478	0.170	0.170	-			
2B Sensor ^(†)		18	42.194	8.533	8.533	-			
Gyro ^(†)		13	12.816	1.548	1.548	-			
Flight Motor Case Kit ^(†)		10	2.906	0.351	0.351	-			
Control Surface Actuators (†)		13	7.584	0.916	0.916	-			
Beacon Shutter Actuator ^(†)		11	4.494	0.543	0.543	-			
Total: Other			137.258	19.965	19.984	-			
Total Advance Procurement/Obligation A	uthority		137.258	19.965	19.984	-			

Exhibit P-10, Advance Procurement Requirements Analysis	(page 2 - Budget Funding Justification): PB 2016 Army	Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	P-5 Number / Title:
2032A / 02 / 30	C59300 / TOW 2 System Summary	C59403 / TOW Family of Missiles

				FY 2	2016		
Cost Elements	<b>QPA</b> (Each)	Production Leadtime (Months)	Unit Cost	Contract Forecast Date	2016 Qty (Each)	For FY	Total Cost Request (\$ M)
Other							
Warhead ^(†)	-						-
Launch Motor (†)	-						-
Flight Motor ^(†)	-						-
2B Sensor ^(†)	-						-
Gyro ^(†)	-						-
Flight Motor Case Kit ^(†)	-						-
Control Surface Actuators (†)	-						-
Beacon Shutter Actuator (†)	-						-
Total: Other							-
Total Advance Procurement/Obligation Authority							=

## Description:

Advance Procurement funding in FY12, FY13, FY14 and FY15 procures items to support the FY12-16 multi-year contract for 6,885 TOW (BGM-71 Series) missiles.

 $^{(\dagger)}$  indicates the presence of Contract Data presented in the associated P-5 Item's P-5a exhibit.

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

**Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C64400 / Guided MLRS Rocket (GMLRS)

Assault Missile Svs

Program Elements for Code B Items:

Other Related Program Elements: 0603778A, 0205778A

Line Item MDAP/MAIS Code:

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

Item MDAP/MAIS Code(s): 260

Line item widar/wais code.	the item widar/wais code. Item widar/wais code(s). 200												
	Prior			FY 2016	FY 2016	FY 2016					То		
Resource Summary	Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total	
Procurement Quantity (Units in Each)	19,942	2,166	774	1,668	-	1,668	1,152	1,074	1,098	1,296	13,994	43,164	
Gross/Weapon System Cost (\$ in Millions)	2,335.735	273.025	127.145	251.060	-	251.060	155.428	170.820	205.038	232.632	1,989.762	5,740.645	
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-	
Net Procurement (P1) (\$ in Millions)	2,335.735	273.025	127.145	251.060	-	251.060	155.428	170.820	205.038	232.632	1,989.762	5,740.645	
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-	
Total Obligation Authority (\$ in Millions)	2,335.735	273.025	127.145	251.060	-	251.060	155.428	170.820	205.038	232.632	1,989.762	5,740.645	
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	e corresponding	g budget request	s are documente	d elsewhere.)					
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-	
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-	
Gross/Weapon System Unit Cost (\$ in Thousands)	117.126	126.050	164.270	150.516	-	150.516	134.920	159.050	186.738	179.500	142.187	132.996	

## **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. Dual 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 lb high explosive warhead to engage point targets with limited collateral damage. GMLRS Unitary is currently in its sixth year of full rate production through annual production contracts. GMLRS Alternative Warhead (AW) is being developed as a non-cluster munition to replace GMLRS DPICM. The Program is currently in the EMD Phase and scheduled to enter full rate production in FY15. The GMLRS AW rocket is 90% common with the Unitary variant. The U.S. Army continues to execute the GMLRS Program with no major cost, schedule, or performance issues.

GMLRS Procurement funding (C64400) includes GMLRS full rate production as well as the procurement of Multiple Launch Rocket System (MLRS) Common Test Devices (C65406).

Seconda	ary Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	2,166	774	1,668	-	1,668	1,152	1,074	1,098	1,296
	Total Obligation Authority	273.025	127.145	251.060	-	251.060	155.428	170.820	205.038	232.632
Total:	Quantity	2,166	774	1,668	-	1,668	1,152	1,074	1,098	1,296

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C64400 / Guided MLRS Rocket (GMLRS)

Assault Missile Sys

Program Elements for Code B Items:

Other Related Program Elements: 0603778A, 0205778A

Line Item MDAP/MAIS Code:

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

Item MDAP/MAIS Code(s): 260

LINE ILEM WIDAF/WAIS C	ode. Item MD	AF/IVIAIS Code(s)	. 200							
Secondar	y Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Secondary Distribution	Total Obligation Authority	273.025	127.145	251.060	-	251.060	155.428	170.820	205.038	232.632

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

**Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C64400 / Guided MLRS Rocket (GMLRS)

Assault Missile Sys

Program Elements for Code B Items:

Other Related Program Elements: 0603778A, 0205778A

Line Item MDAP/MAIS Code:

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

Item MDAP/MAIS Code(s): 260

Exhibits Schedule		Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)				
C65404 / GUIDED MLRS ROCKET (GMLRS)	P-5, P-5a, P-21		19,942 / 2,333.982	2,166 / 272.592	774 / 126.707	1,668 / 250.617	- / -	1,668 / 250.617
C65406 / GMLRS Training Devices	P-40a		- / 1.753	- / 0.433	- / 0.438	- / 0.443	- / -	- / 0.443
Total Gross/Weapon System Cost			19,942 / 2,335.735	2,166 / 273.025	774 / 127.145	1,668 / 251.060	- 1 -	1,668 / 251.060

^{*}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 add due to rounding.

#### Justification:

FY 2016 Base procurement dollars in the amount of \$251.617 million supports the acquisition of 1668 GMLRS Alternative Warhead (AW)rockets for the United States Army and procures the support and equipment for maintenance and obsolescence issues with the fielded Multiple Launch Rocket System Common Test Device (MCTD) Trainers hardware and software.

Army Acquisition Objective is 140,004.

FY2016 Base procurement dollars in the amount of \$.443 million supports the acquisition of support and equipment for maintenance and obsolesence issues with the fielded MCTD Trainers hardware and software.

All funding goes to the Active Component.

The column on the Tactical GMLRS line in the P-5 for base rockets includes base rocket quantity cost and other production contract CLINs such as Army Integrated Logistic Support (ILS) and Obsolescence.

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

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Exhibit P-5, Cost	Analysis	s: PB 20	16 Army	,									I	Date: F	ebruary	2015		
<b>Appropriation / B</b> 2032A / 02 / 30	udget A	ctivity /	Budget	Sub Acti	vity:	P-1 Line Item Number / Title: C64400 / Guided MLRS Rocket (GMLRS)								Item Number / Title [DODIC]: C65404 / GUIDED MLRS ROCKET (GMLRS)				
ID Code (A=Service Read	ly, B=Not Servi	ce Ready) :							ME	DAP/MAIS	6 Code:26	0		-				
F	Resource	Summa	ary		P	Prior Yea	ars	FY 20	14	FY	2015	FY 2	2016 Bas	se F	Y 2016	осо	FY 2016	Total
Procurement Quantity (Unit	ts in Each)						19,942		2,166		77	4	1	1,668		-		1,66
Gross/Weapon System Co	ost (\$ in Million	s)				2,	,333.982		272.592		126.70	7	250	).617		-		250.61
Less PY Advance Procure	ment (\$ in Mil	lions)					-		-		-			-		-		-
Net Procurement (P1) (\$ in	Millions)					2,	,333.982		272.592		126.70	7	250	).617		-		250.61
Plus CY Advance Procure	ment (\$ in Mill	lions)					-		-		-			-		-		-
Total Obligation Authorit	y (\$ in Millions	;)				2,	,333.982		272.592		126.70	7	250	0.617		-		250.61
(Tř	ne following F	Resource Su	ımmary row	s are for info	rmational pu	irposes only	. The corres	ponding budg	get request	s are docume	ented elsewh	ere.)				·		
Initial Spares (\$ in Millions)							-		-		-			-		-		-
Gross/Weapon System Ur	nit Cost (\$ in 7	Thousands)					117.039		125.850		163.70	4	150	0.250		-		150.25
					'							'		'		'		
Note: Subtotals or Totals in	n this Exhibit	P-5 may no	t be exact o	r add, due to	rounding.													
Prior Years FY 2014					FY 2015		FY	/ 2016 Bas	е	FY	/ 2016 O	СО	F	Y 2016 Tota	al			
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Tactical GMLRS Hardware ^(†)	-	-	1,973.642	107.307	2,166	232.426	115.351	774	89.282	126.840	1,668	211.569	-	-	-	126.840	1,668	211.56
Engineering Services	-	-	69.293	-	-	7.843	-	-	7.613	-	-	8.572	-	-	-	-	-	8.57
Ind Maint/Init Prod Fac	-	-	55.971	-	-	3.039	-	-	3.177	-	-	-	-	-	-	-	-	-
Government Test First Destination	-	-	38.153	-	-	6.479	-	-	6.326	-	-	6.726	-	-	-	-	-	6.72
Transportation Production Engineering Support	-	-	3.376 139.191	-	-	17.003	-	-	0.136	-	-	0.263 15.912	-	-	-	-	-	0.26 15.9
Project Management Admin	-	-	54.356	-	-	5.477	-	-	5.678	-	-	5.685	-	-	-	-	-	5.68
Spares	-	-	-	-	-	-	-	-	-	-	-	1.890	-	-	-	-	-	1.89
Subtotal: Recurring Cost	-	-	2,333.982	-	-	272.592	-	-	126.707	-	-	250.617	-	-	-	-	-	250.61
Subtotal: Flyaway Cost	-	-	2,333.982	-	-	272.592	-	-	126.707	-	-	250.617	-	-	-	-	-	250.61
Gross/Weapon System Cost	117.039	19,942	2,333.982	125.850	2,166	272.592	163.704	774	126.707	150.250	1,668	250.617	-	-	-	150.250	1,668	250.61
	Sas	ondanı Di	etributie=				EV	2014		EV 2045		FY 2			FY 2016 OCO		FY 201 Total	
Secondary Distribution  Army Quantity				r r	FY 2014 FY 2015 Base			1,668 -			าบเสา							

LI C64400 - Guided MLRS Rocket (GMLRS) Army

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Exhibit P-5, Cost Analysis: PB 2016 Army								
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30	P-1 Line Item Number / Title: C64400 / Guided MLRS Rocket (GMLRS)	Item Number / Title [DODIC]: C65404 / GUIDED MLRS ROCKET (GMLRS)						

ID Code (A=Service Ready, B=Not Service Rea	dy):	MDAP/MAIS Code	MDAP/MAIS Code:260					
Secondary Distribution		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total		
	Total Obligation Authority	272.592	126.707	250.617	-	250.617		
Total:	Quantity	2,166	774	1,668	-	1,668		
Secondary Distribution	Total Obligation Authority	272.592	126.707	250.617	-	250.617		

^(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2016	Army	Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30	P-1 Line Item Number / Title: C64400 / Guided MLRS Rocket (GMLRS)	Item Number / Title [DODIC]: C65404 / GUIDED MLRS ROCKET (GMLRS)

Cost Elements	0 0 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
Tactical GMLRS Hardware ^(†)		2016	Lockheed Martin M.&F.C Sys. / Dallas, TX	SS/FFP	Aviation and Missile Command	Dec 2016	Apr 2017	1,668	126.840			

^(†) 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/Firm Fixed Price

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

Ext	hibit P-21, Production Schedule: PB 2016 Army  Date: February 2015																														
	Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30  P-1 Line Item Number / Title: C64400 / Guided MLRS Rocket (GMLRS)											C65					DIC]: ROCI	KET													
Cost Elements (Units in Each) Fiscal Year 2017 Fiscal Year 2018																															
					ACCEPT			Calendar Year 2017 Calendar Year 2018																							
O F C R O #	- 1	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
Tacti	ical	GMLR	S Hardware																												
1	2	2016	ARMY	1,668	-	1,668			Α -	-	-	-	139	139	139	139	139	139	139	139	139	139	139	139							-
1	2	2016	MC ^(‡)	78	-	78			Α -	-	-	-	6	6	6	6	6	6	7	7	7	7	7	7							-
1	2	016	Total	1,746	-	1,746	145 145 145 145 145 145 146 146 146 146 146							-																	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	n n	A U G	S E P	B A L

Exhibit P-21, Production Schedule: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 02 / 30	P-1 Line Item Number / Title: C64400 / Guided MLRS Rocket (GMLRS)	Item Number / Title [DODIC]: C65404 / GUIDED MLRS ROCKET (GMLRS)

		Product	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
MFR						Init	ial			Reo	rder	
Ref #	MFR Name - Location	MSR For 2016	1-8-5 For 2016	MAX For 2016	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
	Lockheed Martin M.&F.C Sys Dallas, TX	90	250	500	-	2	16	18	-	2	16	18

#### Remarks:

Production of GMLRS varies as this program shares a production line with LCRRPRs. There are no production gaps during months that GMLRS are not being produced as LCRRPRs Rocket production continues.

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

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2016 Army

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

Date: February 2015

Aggregated Items Title:
C64400 / Guided MLRS Rocket (GMLRS)

Various

Note: Subtotals or Total	ls in	this Ex	hibit P-40a r	may not be	exact or add	d, due to rou	ınding.													
			Prior Years				FY 2014			FY 2015		F	FY 2016 Base	)	ı	Y 2016 OCO	)	F	Y 2016 Tota	.l
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
<b>GMLRS Training Devices</b>	.RS Training Devices																			
C65406 / GMLRS Training Devices			-	-	1.753	-	-	0.433	-	-	0.438	-	-	0.443	-	-	-	-	-	0.443
Secondary Distribution																				
Army				-	-		-	0.433		-	0.438		-	0.443		-	-		-	0.443
Subtotal: GMLRS Training Devices			-	-	1.753	-	-	0.433	-	-	0.438	-	-	0.443	-	=	-	-	=	0.443
Total			-	-	1.753	-	-	0.433	-	-	0.438	-	-	0.443	-	-	-	-	-	0.443

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C65405 / MLRS Reduced Range Practice Rockets (RRPR)

Assault Missile Sys

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elei	ments for Cod	de B Items:			Other Relate	d Program El	<b>ements:</b> 0210	602A	
	Prior			FY 2016	FY 2016	FY 2016					То	
Resource Summary	Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total
Procurement Quantity (Units in Each)	-	1,614	2,994	3,121	-	3,121	2,976	2,988	3,288	3,312	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	153.670	19.022	17.274	17.428	-	17.428	24.389	24.108	24.961	25.606	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	153.670	19.022	17.274	17.428	-	17.428	24.389	24.108	24.961	25.606	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	153.670	19.022	17.274	17.428	-	17.428	24.389	24.108	24.961	25.606	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	11.786	5.770	5.584	-	5.584	8.195	8.068	7.592	7.731	Continuing	Continuing

#### **Description:**

The Multiple Launch Rocket System (MLRS) Low Cost Reduced Range Practice Rocket (RRPR) is the only live training rocket for High Mobility Artillery Rocket System (HIMARS) and M270/M270A1 MLRS Launcher units/crews. RRPR 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.

RRPRs are manufactured by Lockheed Martin in Camden, Arkansas and Letterkenny Munitions Center (LEMC) in Chambersburg, Pennsylvania. LEMC provides an organic dual source producing no less than 20 percent of the fiscal year procurement quantity.

				FY 2016	FY 2016	FY 2016				
Secor	Secondary Distribution		FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	911	1,703	1,783	-	1,783	1,704	1,705	2,046	1,914
	<b>Total Obligation Authority</b>	10.800	10.364	10.436	-	10.436	16.288	15.633	15.284	15.960
ANG	Quantity	703	1,291	1,338	-	1,338	1,272	1,283	1,242	1,398
	Total Obligation Authority	8.222	6.910	6.992	-	6.992	8.101	8.475	9.677	9.646
Total:	Quantity	1,614	2,994	3,121	-	3,121	2,976	2,988	3,288	3,312
Secondary Distribution	Total Obligation Authority	19.022	17.274	17.428	-	17.428	24.389	24.108	24.961	25.606

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Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C65405 / MLRS Reduced Range Practice Rockets (RRPR)

**Date:** February 2015

Assault Missile Sys

			Other Related Program Elements: 0210602A					
ior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total			
tity / Total Cost Fach) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)			
/ 153.670	1,614 / 19.022	2,994 / 17.274	3,121 / 17.428	- / -	3,121 / 17.428			
/ 153 670	1,614 / 19.022	2,994 / 17.274	3,121 / 17.428	- 1 -	3,121 / 17.428			
	- / 153.670	- / 153.670   1,614 / 19.022	- / 153.670   1,614 / 19.022   2,994 / 17.274	- / 153.670   1,614 / 19.022   2,994 / 17.274   3,121 / 17.428	- / 153.670   1,614 / 19.022   2,994 / 17.274   3,121 / 17.428   - / -			

^{*}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.

#### Justification:

FY2016 Base procurement dollars in the amount of \$17.428 million support funding to procure 3121 RRPRs which are required to maintain the practice rocket inventory for Standards in Training Commission (STRC) requirements.

The FY16 funding request was reduced for \$4.133 million to account for the availability of prior year execution balances.

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

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

Date: February 2015 Exhibit P-5, Cost Analysis: PB 2016 Army Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: 2032A / 02 / 30 C65405 / MLRS Reduced Range Practice Rockets (RRPR) C65405 / MLRS Reduced Range Practice Rockets (RRPR)

ID Code (A=Service Ready, B=Not Service Ready) :		ME	AP/MAIS Code:			
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	1,614	2,994	3,121	-	3,121
Gross/Weapon System Cost (\$ in Millions)	153.670	19.022	17.274	17.428	-	17.428
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	153.670	19.022	17.274	17.428	=	17.428
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	153.670	19.022	17.274	17.428	-	17.428
(The following Resource Summary rows are for information	onal purposes only. The con	responding budget requests	are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	11.786	5.770	5.584	-	5.584

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

	F	Prior Years	S		FY 2014			FY 2015		FY	/ 2016 Bas	e	FY	2016 OC	0	FY	2016 Tota	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Flyaway Cost					,			,										
Recurring Cost																	_	
Reduced Range Practice Rocket (LCRRPR) ^(†)	-	-	114.775	8.952	1,614	14.448	4.323	2,994	12.942	4.196	3,121	13.096	-	-	-	4.196	3,121	13.09
Warheads Govt Furnished Equip (GFE)	-	-	14.731	-	-	1.716	-	-	1.754	-	-	1.754	-	-	-	-	-	1.75
Engineering Services	-	-	2.923	-	-	0.302	-	-	0.251	-	-	0.251	-	-	-	-	-	0.2
Test and Evaluation	-	-	3.374	-	-	0.411	-	-	0.361	-	-	0.361	-	-	-	-	-	0.3
First Destination Transportation	-	-	0.749	-	-	0.016	-	-	0.148	-	-	0.148	-	-	-	-	-	0.14
Project Management Admin	-	-	7.378	-	-	0.646	-	-	0.567	-	-	0.567	-	-	-	-	-	0.56
Production Engineering Support	-	-	9.740	-	-	1.483	-	-	1.251	-	-	1.251	-	-	-	-	-	1.2
Subtotal: Recurring Cost	-	-	153.670	-	-	19.023	-	-	17.275	-	-	17.428	-	-	-	-	-	17.4
Subtotal: Flyaway Cost	-	-	153.670	-	-	19.023	-	-	17.275	-	-	17.428	-	-	-	-	-	17.42
Gross/Weapon System Cost	-	-	153.670	11.786	1,614	19.022	5.770	2,994	17.274	5.584	3,121	17.428	-	=	-	5.584	3,121	17.42

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Exhibit P-5, Cost Analysis: PB 2016 Army		Date: February 2015
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)

ID Code (A=Service Ready, B=Not Service	e Ready):		MDAP/MAIS Code	<b>)</b> :		
Seco	ndary Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Army	Quantity	911	1,703	1,783	-	1,783
	Total Obligation Authority	10.800	10.364	10.436	-	10.436
ANG	Quantity	703	1,291	1,338	-	1,338
	Total Obligation Authority	8.222	6.910	6.992	-	6.992
Total:	Quantity	1,614	2,994	3,121	-	3,121
Secondary Distribution	Total Obligation Authority	19.022	17.274	17.428	-	17.428

^(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2016 A	Army	Date: February 2015
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	0 C 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Revision	RFP Issue Date
Reduced Range Practice Rocket (LCRRPR) ^(†)		2014	Lockheed Martin / Dallas	SS/FFP	AMCOM, RSA, AL	Dec 2013	Apr 2015	1,614	8.952	N		Sep 2013
Reduced Range Practice Rocket (LCRRPR) ^(†)		2015	Lockheed Martin / Dallas	SS/FFP	AMCOM,RSA,AL	Jan 2015	May 2016	2,994	4.323	N		Sep 2013
Reduced Range Practice Rocket (LCRRPR) ^(†)		2016	Lockheed Martin / Dallas	SS / FFP	AMCOM,RSA,AL	Dec 2015	Apr 2017	3,121	4.196	N		Aug 2015

^(†) 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). LEMC has been established as the organic source that is both facilitized and qualified to produce the LCRRPR.

LEMC provides an organic dual source producing no less than 20 percent of the fiscal year procurement quantity.

^{*} Sole source/Firm Fixed Price

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

Ex	hil	bit F	P-21, Pr	oducti	on Sc	hedu	le: P	B 201	6 Arm	ıy														Date	: Feb	ruary	2015				
	•	•	i <b>ation</b> / 02 / 30	Budge	et Acti	ivity /	Bud	get S	ub Ac	tivity	:	1		Item / MLR					actice	e Roc	kets (	RRPF	₹)	C654	<b>Num</b> 405 / I tice R	MLRS	Red	uced		е	
				lements in Each)								Fiscal Y	ear 2014											Fiscal Ye							
	м				ACCEPT PRIOR	BAL									Calendar	Year 201	4				1				Calend	dar Year	2015				
0 C 0	F R	FY	SERVICE	PROC QTY	TO 1 OCT 2013	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	J L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
Re	duce	d Ran	ge Practice R	locket (LCF	RRPR)				'																,						
	1	2014	ARMY (XI)	1,614	-	1,614			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	201	201	201	201	201	408
	1	2014	MC (‡) (XII)	204	-	204			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	17	17	17	17	17	102
	1	2014	Total	1,818	-	1,818			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	218	218	218	218	218	218	510
	1	2015	ARMY (XIII)	2,994	-	2,994																A -	-	-	-	-	-	-	-	-	2,994
	1	2015	MC (‡) (XIV)	642	-	642																A -	-	-	-	-	-	-	-	-	642
	1	2015	Total	3,636	-	3,636																-	-	-	-	-	-	-	-	-	3,636
	1	2016	ARMY (XV)	3,121	-	3,121																									3,121
	1	2016	MC (‡) (XVI)	642	-	642																									642
	1	2016	Total	3,763	-	3,763																									3,763

O C T D E C F E B M A R A P R M A Y J U J L A U G S E P O C T N O V D E C J A N F E B M A R A P R N N J U L A U G

Ext	hib	it P	P-21, Pro	ducti	on Sc	hedul	e: PE	3 2016	3 Arm	y														Date	: Feb	ruary	2015				
	-	•	iation / I 02 / 30	Budge	et Activ	vity /	Budg	jet Su	ıb Act	tivity:	!	1		Item / MLR				ge Pra	actice	Rocl	kets (F	RRPF	R)	C654	<b>Num</b> 405 / I tice R	MLRS	Red	uced	-	e	
	٠		Cost El (Units i								ſ	Fiscal Y	ear 2016											Fiscal Ye	ear 2017						
					ACCEPT	D41								С	alendar `	Year 201	6								Calend	dar Year	2017				
O F C F O #	F R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
Red	uced	Rang	ge Practice Ro	ocket (LCF	RRPR)	,					,							Ÿ	·						,			,			
1	1 20	014	ARMY (XI)	1,614	1,206	408	201	207	-	-	-	-																			-
1	1 20	014	MC (‡) (XII)	204	102	102	17	17	17	17	17	17																			-
1	1 20	014	Total	1,818	1,308	510	218	224	17	17	17	17																			-
1	1 20	015	ARMY (XIII)	2,994	-	2,994	-	-	-	-	-	-	-	250	250	250	250	250	250	250	250	250	250	244	250						-
1	1 20	015	MC (‡) (XIV)	642	-	642	-	-	-	-	-	-	-	53	53	53	53	53	53	53	53	53	53	59	53						-
1	1 20	015	Total	3,636	-	3,636	-	-	-	-	-	-	-	303	303	303	303	303	303	303	303	303	303	303	303						-
1	1 20	016	ARMY (XV)	3,121	-	3,121			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	260	260	260	260	260	260	1,56
1	1 20	016	MC (‡) (XVI)	642	-	642			Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	54	54	54	54	54	31
1	1 20	016	Total	3,763	-	3,763			-	-	- 1	-	-	-	-	-	-	-	-	-	-	-	-	-	314	314	314	314	314	314	1,87
,	•						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A	J U	n 1	A U G	S E P	O C	N O V	D E C	J A N	F E B	M A R	A P R	M A	J U	n 1	A U G	S E	B A

		-21, Pro	ducti	on Scl	nedul	e: PB	2016	Arm	у														Date	e: Feb	oruary	2015	5		
	-	<b>ation / I</b> 2 / 30	Budge	t Activ	vity /	Budg	et Su	b Act	tivity:			_		Num RS Re				actic	e Roc	kets (	RRPI	₹)	C65	405 <i>l</i>	nber / MLR: Rocke	S Red	luced	Rang	je
		Cost El									Fiscal Ye	ar 2018											Fiscal Y	ear 2019					
M ) F ; R	=Y	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	Year 20 J U L	A U G	S E P	0 C T	N O V	D E C	J A N	F E B	M A R	Caler A P R	M A Y	2019 J U N	J U	A U G	S E P
duced f	Range	e Practice Ro	cket (LCF	RPR)																									
1 20	014	ARMY ^(XI)	1,614	1,614	-																								
1 20	014	MC ^{(‡) (XII)}	204	204	-																								
1 20	014	Total	1,818	1,818	-																								
1 20	015	ARMY (XIII)	2,994	2,994	-																								
1 20	015	MC ^{(‡) (XIV)}	642	642	-																								
1 20	015		3,636	3,636	-																								
1 20	016	ARMY (XV)	3,121	1,560	1,561	260	260	260	260	260	261																		
1 20	016	MC ^{(‡) (XVI)}	642	324	318	54	54	54	53	53	50																		
1 20	016	Total	3,763	1,884	1,879	314	314	314	313	313	311					1				1									
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	U L	U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U J	n T	A U G	S E P

Exhibit P-21, Production Schedule: PB 2016 Army		Date: February 2015
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)

		Product	tion Rates (Each /	Month)				Procurement Lea	adtime (Months)			
MFR	}					Init	ial			Reo	rder	
Ref		MSR For 2016	1-8-5 For 2016	MAX For 2016	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	Lockheed Martin - Dallas	42	480	960	-	2	16	18	-	2	16	18

#### Remarks:

Production of LCRRPRs varies as this program shares a production line with GMLRS. There are no production gaps during months that RRPRs are not being produced as GMLRS Rocket production continues.

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

#### Service/Agency Suffixes:

(XI) BASE

(XII) BASE

(XIII) BASE

(XIV) BASE

(XV) BASE

(XVI) BASE

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

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

**Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:

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

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

P-1 Line #10

P-1 Line Item Number / Title:

Assault Missile Sys

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Co	de B Items:			Other Relate	d Program El	ements: 0203	8802A	
	Prior			FY 2016	FY 2016	FY 2016					То	
Resource Summary	Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total
Procurement Quantity (Units in Each)	1,255	62	-	-	-	-	-	-	-	-	-	1,317
Gross/Weapon System Cost (\$ in Millions)	1,230.802	81.200	-	-	-	-	-	-	-	-	-	1,312.002
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	1,230.802	81.200	-	-	-	-	-	-	-	-	-	1,312.002
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,230.802	81.200	-	-	-	-	-	-	-	-	-	1,312.002
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Ti	ne corresponding	g budget request	s are document	ed elsewhere.)	1			
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	980.719	1,309.677	-	-	-	-	-	-	-	-	-	996.205

## **Description:**

Army Tactical Missile Systems (ATACMS) is the United States (U.S) Army's primary 24/7, all-weather, and surface-to-surface artillery precision missile used by current and future Combatant Commanders to shape the battlefield with long-range fires against hard and soft stationary targets in open, complex, and urban environments.

Army Acquisition Objective is 140.

Secondary	/ Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	62	-	-	-	-	-	-	-	-
	Total Obligation Authority	81.200	-	-	-	-	-	-	-	-
Total:	Quantity	62	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	81.200	-	-	-	-	-	-	-	-

**UNCLASSIFIED** 

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

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

**Date:** February 2015

Assault Missile Sys

ID Code (A=Service Ready, B=Not Service Ready) :	Pro	ogram	Elements for Code	B Items:	Oth	er Related Program I	Elements: 0203802A	
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)
C98501 / ATACMS BLK IA	P-40a		1,255 / 1,230.802	62 / 81.200	- / -	- / -	- / -	- / -
Total Gross/Weapon System Cost			1,255 / 1,230.802	62 / 81.200	- 1 -	- 1 -	- 1 -	- / -

*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 add due to rounding.

#### Justification:

No FY16 funds requested.

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Exhibit P-40a, Budget Item Justification For Aggregated Ite	<b>ms:</b> PB 2016 Army	Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	Aggregated Items Title:	
2032A / 02 / 30	C98510 / ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM	Various

Note: Subtotals or Total	ls in	this Ex	hibit P-40a r	nay not be e	exact or add	d, due to rou	nding.													
				Prior Years			FY 2014			FY 2015	-	ı	FY 2016 Base	)	ı	FY 2016 OCC	)	F	Y 2016 Tota	1
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
ATACMS BLK IA				•							,									
C98501 / ATACMS BLK IA			980.719	1,255	1,230.802	1,309.677	62	81.200	-	-	-	-	-	-	-	-	-	-	-	-
Secondary Distribution																				
Army				-	-		62	81.200		-	-		-	-		-	-		-	-
Subtotal: ATACMS BLK IA			-	-	1,230.802	-	-	81.200	-	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	1,230.802	-	-	81.200	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C50700 / Patriot Mods

Modifications

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Co	de B Items:			Other Relate	d Program El	ements:		
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,732.695	326.438	183.838	241.883	-	241.883	207.692	321.879	354.907	197.147	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	2,732.695	326.438	183.838	241.883	-	241.883	207.692	321.879	354.907	197.147	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	2,732.695	326.438	183.838	241.883	-	241.883	207.692	321.879	354.907	197.147	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	30,235.375	-	30,235.375	-	-	-	-	Continuing	Continuing

#### **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) 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); the Modern Manstation (MMS) upgrade; Radar on the Net/Kit Integration; Enhanced Launcher Electronic Systems (ELES); and SIPRNet/NIPRNet Access Point/Troposcatter (SNAP/TROPO).

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). Annual kit procurement quantities may change because of production efficiencies or other cost reductions such as synergies with Foreign Military Sales requirements or Better Buying Power initiatives. Procurement will be in accordance with 10 USC Sect 2308 and DFARS Subpart 207.70, Buy-to-Budget.

Recapitalization (RECAP) Modifications include communication upgrades, Family of Medium Tactical Vehicles (FMTV), and Depot Maintenance Plant Equipment (DMPE). 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 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 Battery Command Posts and Tactical Command Systems. Additionally, this effort supports the BCP/TCS/CSM fielding upgrades for each PATRIOT Post Deployment Build update, as well as working obsolescence alleviation and engineering changes. Note: Quantities procured and installed in prior years.

LI C50700 - Patriot Mods
Army

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P-1 Line #11

Exhibit P-40, Budget Line Item Justification: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	
2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:	C50700 / Patriot Mods	
Modifications		

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

Program Elements for Code B Items:

**Other Related Program Elements:** 

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.

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 growth 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). Also, 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.

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 Enhanced Launcher Electronics Systems (ELES) and four Radar Kits will complete the school upgrades.

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 PATRIOT Maintenance Trainer (PMT) is a new device being developed and planned for fielding to the 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. 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 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 Reconfigurable Table Top Trainer (RT3) provides a flexible training platform that may be configured to support multiple training levels and systems, via removable hard drives. In PATRIOT the RT3 is used to run the PATRIOT Skills Library (PSL) lessons for both maintenance and operator tasks.

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 will increase 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. Note: Contract was awarded September 2013 for FY15 and FY16 deliveries.

The Enhanced Launcher Electronics System (ELES) modification will upgrade a PAC-2 Launcher to a PAC-3 Capability.

SIPRNet/NIPRNet Access Point/Troposcatter (SNAP/TROPO). The SNAP/TROPO program provides units with an organic Beyond Line of Sight (BLOS) capability to support both intra battalion and extra battalion communications. Troposcatter terminals allow connectivity between PATRIOT shelters when local terrain or long distances make organic 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.

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Army

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P-1 Line #11

Exhibit P-40, Budget Line Item Justification: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	
2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10:	C50700 / Patriot Mods	
Modifications		

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

Digital Sidelobe Canceller (DSLC) - This is an Electronic Counter Measures (ECM) technique used to cancel the interference that is entering the radar via the antenna sidelobes. This is currently being performed using analog hardware in the PATRIOT radar. DSLC replaces the analog hardware and performs this task digitally in the radars processor.

				FY 2016	FY 2016	FY 2016				
Secondary	Distribution	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	326.438	183.838	241.883	-	241.883	207.692	321.879	354.907	197.147
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	326.438	183.838	241.883	-	241.883	207.692	321.879	354.907	197.147

LI C50700 - Patriot Mods
Army

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P-1 Line #11

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C50700 / Patriot Mods

Modifications

ID Code (A=Service Ready, B=Not Service Ready) :		Program	Elements for Code	B Items:	Oth	ner Related Program	Elements:	
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)					
C50700 / PATRIOT MODS (Various)	P-3a		- /2,732.695	- / 326.438	- / 183.838	- / 241.883	- / -	- / 241.883
Total Gross/Weapon System Cost			- / 2,732.695	- / 326.438	- / 183.838	- / 241.883	- 1 -	- / 241.883
Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)					
C50700 / PATRIOT MODS (Various)	P-3a		- /207.692	- / 321.879	- / 354.907	- / 197.147	Continuing	Continuing
Total Gross/Weapon System Cost			- / 207.692	- / 321.879	- / 354.907	- / 197.147	Continuing	Continuing

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

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

#### Justification:

FY 2016 base procurement dollars in the amount of \$241.883 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), Air Defense Artillery (ADA) School Upgrades/Training Aids, Devices, Simulators and Simulations (TADSS), Radar Digital Processor-Configuration (RDP-C), Modern Manstation (MMS), Enhanced Launcher Electronics System (ELES), PATRIOT Maintenance Trainer (PMT), and PATRIOT Multi-Echelon Training (PMET).

The increase in funding from FY15 to FY16 is primarily due to Air Defense Artillery School TADSS upgrades, converting Configuration 2 assets to Configuration 3 and procuring 4 additional radar kits. This effort will be complete in FY16.

Efforts will 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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Exhibit P-3a, Individual Modification: PB 2016 Army

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

Date: February 2015

Modification Number / Title:
C50700 / Patriot Mods

C50700 / PATRIOT MODS

2032A / 03 / 10			0.50	Ji OO i Fallic	Ji Wous				030700	ITAINOI	IVIODS	
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,732.695	326.438	183.838	241.883	-	241.883	207.692	321.879	354.907	197.147	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	2,732.695	326.438	183.838	241.883	-	241.883	207.692	321.879	354.907	197.147	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	2,732.695	326.438	183.838	241.883	-	241.883	207.692	321.879	354.907	197.147	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational _l	ourposes only. Th	ne corresponding	budget request	s are documente	d elsewhere.)				1
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands,	-	-	-	30,235.375	-	30,235.375	-	-	-	-	Continuing	Continuing

## **Description:**

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

Secondar	y Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	326.438	183.838	241.883	-	241.883	207.692	321.879	354.907	197.147
Total:	Quantity	-	=	=	=	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	326.438	183.838	241.883	-	241.883	207.692	321.879	354.907	197.147

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P-1 Line #11

Exhibit P-3a, Individual Modification: PB 2016 Army

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

Date: February 2015

Modification Number / Title:
C50700 / Patriot Mods

C50700 / PATRIOT MODS

2032A / 03 / 10		_	C50700 / I	Patriot Mod	ds				C50700 /	PATRIOT I	MODS	
Models of Systems Affected: Various		Modifi	cation Typ	e: Various			Re	lated RDT	&E PEs:			
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$										
Procurement												
Modification Item 1 of 13: RAM Mods												_
A Kits												_
Recurring												_
Kit Quantity	6,338 / 588.536	86 / 9.773	90 / 11.317	110 / 17.100	- 1 -	110 / 17.100	100 / 13.200	102 / 12.050	102 / 11.620	91 / 10.820	Continuing	Continuing
Training	0 / 23.046	- / 11.550	- / 10.224	- / 13.000	- 1 -	- / 13.000	- / 12.000	- / 13.000	- / 12.630	- / 12.355	Continuing	Continuing
Training Equipment	0 / 6.404	- /5.630	- /5.643	- /2.500	- 1 -	- /2.500	- / 1.500	- /1.500	- / 1.500	- / 1.500	Continuing	Continuing
Support Equipment	0 / 11.642	- /8.759	- /8.441	- / 6.850	- 1 -	- / 6.850	- 17.425	- / 6.125	- /5.925	- /5.000	Continuing	Continuing
Other	0 / 26.407	- / 15.800	- / 13.225	- / 11.550	- 1 -	- / 11.550	- / 11.350	- / 10.750	- / 10.950	- / 10.950	Continuing	Continuing
Integrated Logistics Support	0 / 3.052	- / 1.010	- / 1.150	- / 1.100	- 1 -	- / 1.100	- / 1.125	- / 0.975	- / 0.775	- / 0.775	Continuing	Continuing
Subtotal: Recurring	- /659.087	- / 52.522	- /50.000	- / 52.100	- / -	- / 52.100	- /46.600	- /44.400	- /43.400	- /41.400	Continuing	Continuing
Subtotal: RAM Mods	6,338 / 659.087	86 / 52.522	90 / 50.000	110 / 52.100	- / -	110 / 52.100	100 / 46.600	102 / 44.400	102 / 43.400	91 / 41.400	Continuing	Continuing
Modification Item 2 of 13: Recapitalization												
A Kits												
Recurring												
Kit Quantity	11 / 182.181	1 / 10.000	1 / 10.000	1 / 11.200	- 1 -	1 / 11.200	1 / 12.600	1 / 12.650	1 / 13.100	1 / 13.700	Continuing	Continuing
Other	0/9.736	- /2.000	- /2.000	- /1.900	- 1 -	- /1.900	- /2.400	- /2.650	- /2.500	- /1.300	Continuing	Continuing
Subtotal: Recurring	- /191.917	- /12.000	- /12.000	- /13.100	- / -	- /13.100	- /15.000	- /15.300	- /15.600	- /15.000	Continuing	Continuing
Subtotal: Recapitalization	11 / 191.917	1 / 12.000	1 / 12.000	1 / 13.100	- / -	1 / 13.100	1 / 15.000	1 / 15.300	1 / 15.600	1 / 15.000	Continuing	Continuing
Modification Item 3 of 13: BCP/TCS/CSM												
A Kits												
Recurring												_
Engineering Change Orders	- 1 -	- /1.000	- / 0.400	- / 0.660	- 1 -	- / 0.660	- /0.770	- / 0.770	- /0.770	- /0.770	Continuing	Continuing
Fielding Support	0 / 2.100	- / 0.400	- / 0.500	- / 0.840	- 1 -	- / 0.840	- / 0.980	- / 0.980	- / 0.980	- / 0.980	Continuing	Continuing
Obsolescence/Tech Refresh	- 1 -	- / 0.200	- / 0.100	- / 0.240	- 1 -	- / 0.240	- / 0.280	- / 0.280	- / 0.280	- / 0.280	Continuing	Continuing
Software/Systems Engineering	0 / 21.400	- /5.900	- / 0.500	- / 0.840	- 1 -	- / 0.840	- / 0.980	- / 0.980	- / 0.980	- / 0.980	Continuing	Continuing
Integrated Logistics Support	0 / 31.926	- /4.500	- /2.000	- /3.420	- 1 -	- /3.420	- /3.990	- /3.990	- /3.990	- /3.990	Continuing	Continuing
Subtotal: Recurring	- /55.426	- /12.000	- /3.500	- /6.000	- / -	- /6.000	- /7.000	- /7.000	- /7.000	- /7.000	Continuing	Continuing
Non-Recurring												
BCP Kit Quantity	62 / 29.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
TCS Kit Quantity	17 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	17 /
								,	1	,	0	<b>1 .</b>
Subtotal: Non-Recurring	- /29.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2016 Army

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

Date: February 2015

Modification Number / Title:
C50700 / Patriot Mods

C50700 / PATRIOT MODS

2032A / 03 / 10			C50700 / I	Patriot Mod	ds				C50700 / I	PATRIOT I	MODS	
Models of Systems Affected: Various		Modifi	cation Typ	e: Various			Re	lated RDT	&E PEs:			
	Prior Years  Qty (Each) I	FY 2014  Qty (Each) I	FY 2015  Qty (Each) I	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017  Qty (Each) I	FY 2018  Qty (Each) I	FY 2019  Qty (Each) I	FY 2020  Qty (Each) I	To Complete	Total
Financial Plan	Total Cost (\$ M)		Total Cost (\$ M)		Total Cost (\$ M)		Total Cost (\$ M)	Total Cost (\$ M)		Total Cost (\$ M)		
<b>Modification Item 4 of 13:</b> Combined Crypto Modification Phase I (CCMPI)												
A Kits												
Recurring												
Kit Quantity	- 1 -	33 / 11.400	39 / 12.500	78 / 25.400	- 1 -	78 / 25.400	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
Kit Quantity (GFE)	- 1 -	- / -	- / 0.268	- / 0.268	- / -	- / 0.268	- / 0.268	- / -	- / -	- 1 -	Continuing	Continuing
Subtotal: Recurring	- / -	- /11.400	- /12.768	- /25.668	- / -	- /25.668	- /0.268	- / -	- / -	- / -	Continuing	Continuin
Non-Recurring												
Training	- 1 -	- 1 -	- / 0.132	- / 0.132	- 1 -	- / 0.132	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
Subtotal: Non-Recurring	- / -	- / -	- /0.132	- /0.132	- / -	- /0.132	- / -	- / -	- / -	- / -	Continuing	Continuin
Subtotal: Combined Crypto Modification Phase I (CCMPI)	- / -	33 / 11.400	39 / 12.900	78 / 25.800	- / -	78 / 25.800	- /0.268	- / -	- / -	- /-	Continuing	Continuin
<b>Modification Item 5 of 13:</b> Radar Digital Processor - Configuration (RDP-C)												,
A Kits												
Recurring												
Kit Quantity	5 / 19.860	62 / 165.933	13 / 52.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
Fielding	- 1 -	- 1 -	- 1 -	- /4.000	- 1 -	- /4.000	- /4.000	- /4.000	- /2.000	- 1 -	Continuing	Continuing
Support Equipment	- 1 -	- / 10.767	- / 26.000	- / -	- / -	- 1 -	- / -	- / -	- / -	- 1 -	Continuing	Continuing
Subtotal: Recurring	- /19.860	- /176.700	- /78.000	- /4.000	- / -	- /4.000	- /4.000	- /4.000	- /2.000	- / -	Continuing	Continuir
Subtotal: Radar Digital Processor - Configuration (RDP-C)	5 / 19.860	62 / 176.700	13 / 78.000	- /4.000	- / -	- /4.000	- /4.000	- /4.000	- /2.000	- / -	Continuing	Continuir
Modification Item 6 of 13: Air Defense Artillery School Upgrades/ TADSS												,
A Kits												
Recurring												
ELES Kit Quantity	- 1 -	4 / 13.437	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
Radar Kit Quantity	- 1 -	- 1 -	- 1 -	4 / 96.000	- 1 -	4 / 96.000	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
Subtotal: Recurring	- / -	- /13.437	- / -	- /96.000	- / -	- /96.000	- / -	- / -	- / -	- / -	Continuing	Continuin
Subtotal: Air Defense Artillery School Upgrades/ TADSS	- /-	4 / 13.437	- / -	4 / 96.000	- / -	4/96.000	- / -	- / -	- / -	- / -	Continuing	Continuin
Modification Item 7 of 13: Modern Manstation (MMS)						1					1	,
A Kits												_
Recurring												_
Fielding	- 1 -	- /1.600	- /3.900	- /2.300	- 1 -	- /2.300	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2016 ArmyDate: February 2015Appropriation / Budget Activity / Budget Sub Activity:<br/>2032A / 03 / 10P-1 Line Item Number / Title:<br/>C50700 / Patriot ModsModification Number / Title:<br/>C50700 / PATRIOT MODS

2032A / 03 / 10			C507007	Patriot Mod	ds				C5070071	PATRIOTI	MODS	
Models of Systems Affected: Various		Modifi	ication Typ	<b>oe:</b> Various	;		Re	lated RDT	&E PEs:			
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) Total Cost (\$										
Support Equipment	82 / 54.919	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
Subtotal: Recurring	- /54.919	- /1.600	- /3.900	- /2.300	- / -	- /2.300	- / -	- / -	- / -	- / -	Continuing	Continuin
Non-Recurring												
Kit Quantity	82 / 54.919	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
Subtotal: Non-Recurring	- / 54.919	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuin
Subtotal: Modern Manstation (MMS)	164 / 109.838	- /1.600	- /3.900	- /2.300	- / -	- /2.300	- / -	- / -	- / -	- / -	Continuing	Continuin
Modification Item 8 of 13: Enhanced Launcher Electronics System (ELES)			1	1								,
A Kits												
Recurring												_
Kit Quantity	271 / 0.000	10 / 33.601	- 1 -	8 / 33.000	- 1 -	8 / 33.000	9 / 36.400	19 / 80.600	45 / 179.007	25 / 99.247	Continuing	Continuing
Subtotal: Recurring	- /0.000	- /33.601	- / -	- /33.000	- / -	- /33.000	- /36.400	- /80.600	- /179.007	- /99.247	Continuing	Continuir
Subtotal: Enhanced Launcher Electronics System (ELES)	271 / 0.000	10 / 33.601	- / -	8 / 33.000	- / -	8 / 33.000	9 / 36.400	19 / 80.600	45 / 179.007	25 / 99.247	Continuing	Continuir
Modification Item 9 of 13: SNAP/TROPO			•	'	1			1			1	1
A Kits												
Recurring												
Kit Quantity SNAP	- 1 -	4 / 0.527	- 1 -	- 1 -	- 1 -	- 1 -	14 / 1.976	7 / 2.371	8 / 0.659	1 / 0.082	Continuing	Continuing
Support	- 1 -	- / 1.734	- 1 -	- 1 -	- 1 -	- 1 -	- /5.958	- /8.419	- /2.181	- / 0.427	Continuing	Continuing
Integrated Logistics Support	- 1 -	- / 1.009	- 1 -	- 1 -	- 1 -	- 1 -	- /2.186	- /2.581	- /2.581	- / 1.582	Continuing	Continuing
Training	- 1 -	- / 0.085	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.113	- / 0.172	- / 0.055	- / 0.028	Continuing	Continuing
Equipment	- 1 -	- / 0.825	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	Continuing	Continuing
Subtotal: Recurring	- / -	- /4.180	- / -	- / -	- / -	- / -	- /10.233	- /13.543	- /5.476	- /2.119	Continuing	Continuir
Non-Recurring												
Kit Quantity TROPO	- 1 -	10 / 4.520	- 1 -	- 1 -	- 1 -	- 1 -	30 / 15.367	18 / 19.887	18 / 5.424	6 / 0.181	Continuing	Continuing
Subtotal: Non-Recurring	- / -	- /4.520	- / -	- / -	- / -	- / -	- /15.367	- /19.887	- /5.424	- /0.181	Continuing	Continuir
Subtotal: SNAP/TROPO	- / -	14 / 8.700	- / -	- / -	- / -	- / -	44 / 25.600	25 / 33.430	26 / 10.900	7 / 2.300	Continuing	Continuir
Modification Item 10 of 13: PATRIOT Maintenance Trainer (PMT)												
A Kits							_	_		_		
Recurring												
Kit Quantity	- 1 -	- 1 -	1 / 15.941	- 1 -	- 1 -	- 1 -	1 / 15.000	2 / 27.000	- 1 -	- 1 -	Continuing	Continuing
Subtotal: Recurring	- / -	- / -	- /15.941	- / -	- / -	- / -	- /15.000	- /27.000	- / -	- / -	Continuing	Continuin
Cabicial Recalling	, ,	_ , _	- /13.941	/ -	- / -	- / -	- / 15.000	- 727.000		,	Continuing	Continuin

LI C50700 - Patriot Mods Army UNCLASSIFIED
Page 8 of 23

Exhibit P-3a, Individual Modification: PB 2016 Army

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

P-1 Line Item Number / Title:
C50700 / Patriot Mods

C50700 / PATRIOT MODS

2032A / 03 / 10			C50700 /	Patriot Mod	ds				C50700 / F	PATRIOT I	MODS	
Models of Systems Affected: Various		Modifi	cation Typ	e: Various			Re	lated RDT	&E PEs:			
	Prior Years	FY 2014  Qty (Each) I	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ I
Training Support	- 1 -	- 1 -	- / -	- /4.000	- 1 -	- /4.000	- 1 -	- / -	- 1 -	- 1 -	Continuing	Continuing
Subtotal: Non-Recurring	- / -	- / -	- / -	- /4.000	- / -	- /4.000	- / -	- / -	- / -	- / -	Continuing	Continuing
Subtotal: PATRIOT Maintenance Trainer (PMT)	- / -	- / -	1 / 15.941	- /4.000	- / -	- /4.000	1 / 15.000	2 / 27.000	- / -	- / -	Continuing	Continuing
<b>Modification Item 11 of 13:</b> PATRIOT Multi-Echelon Training (PMET)												
A Kits												
Recurring												
Kit Quantity	- 1 -	- 1 -	4 / 6.497	4 / 4.383	- 1 -	4 / 4.383	4 / 5.300	4 / 5.600	4 / 6.000	4 / 10.000	Continuing	Continuing
Subtotal: Recurring	- / -	- / -	- /6.497	- /4.383	- / -	- /4.383	- /5.300	- /5.600	- /6.000	- /10.000	Continuing	Continuing
Subtotal: PATRIOT Multi-Echelon Training (PMET)	- / -	- / -	4 / 6.497	4 / 4.383	- / -	4 / 4.383	4 / 5.300	4 / 5.600	4 / 6.000	4 / 10.000	Continuing	Continuing
<b>Modification Item 12 of 13:</b> Reconfigurable Table Top Trainers (RT3)												
A Kits												
Recurring												
Kit Quantity	- 1 -	- 1 -	- / -	- / -	- 1 -	- / -	69 / 15.000	- / -	70 / 15.000	- 1 -	Continuing	Continuing
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- /15.000	- / -	- /15.000	- / -	Continuing	Continuing
Subtotal: Reconfigurable Table Top Trainers (RT3)	- / -	- / -	- / -	- / -	- / -	- / -	69 / 15.000	- / -	70 / 15.000	- / -	Continuing	Continuing
Modification Item 13 of 13: Digital Sidelobe Canceller (DSLC)												
A Kits												
Recurring												
Kit Quantity	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	15 / 35.292	32 / 102.949	23 / 74.800	11 / 20.800	Continuing	Continuing
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- /35.292	- /102.949	- /74.800	- /20.800	Continuing	Continuing
Subtotal: Digital Sidelobe Canceller (DSLC)	- / -	- / -	- / -	- / -	- / -	- / -	15 / 35.292	32 / 102.949	23 / 74.800	11 / 20.800	Continuing	Continuing
Subtotal: Procurement, All Modification Items	6,868 / 1,065.128	210 / 321.960	148 / 182.738	205 / 240.683	- / -	205 / 240.683	243 / 205.460	185 / 320.279	271 / 353.707	139 / 195.747	Continuing	Continuing
nstallation												
Modification Item 1 of 13: RAM Mods	6,338 / 142.244	22 / 3.478	88 / -	94 / -	- 1 -	94 / -	107 / -	101 / -	102 / -	101 / -	7,160 / -	14,11 145.7
Modification Item 2 of 13: Recapitalization	11 / 201.191	1 / 1.000	1 / 1.000	1 / 1.000	- 1 -	1 / 1.000	1 / 1.000	1 / 1.100	1 / 1.200	1 / 1.400	12 / -	30 / 208.8
Modification Item 3 of 13: BCP/TCS/CSM	79 / 1,324.132	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	79 / 1,324.1
Modification Item 4 of 13: Combined Crypto Modification Phase I (CCMPI)	0 / 0.000	- 1 -	16 / 0.100	37 / 0.200	- 1 -	37 / 0.200	59 / 1.232	38 / 0.500	- 1 -	- 1 -	- 1 -	150 / 2.0
Modification Item 5 of 13: Radar Digital Processor - Configuration (RDP-C)	5 / 0.000	- 1 -	- 1 -	16/ -	- / -	16 / -	50 / -	9/ -	- 1 -	- 1 -	- / -	80 / -

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Exhibit P-3a, Individual Modification: PB 2016 Army

Appropriation / Budget Activity / Budget Sub Activity:

2032A / 03 / 10

Date: February 2015

Modification Number / Title:

C50700 / Patriot Mods

C50700 / PATRIOT MODS

Models of Systems Affected: Various		Modifi	cation Typ	<b>oe:</b> Various	3		Re	lated RDT	&E PEs:			
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M,										
Modification Item 6 of 13: Air Defense Artillery School Upgrades/ TADSS	0 / 0.000	- 1 -	1/ -	3/ -	- 1 -	3/ -	- 1 -	41 -	- 1 -	- 1 -	- 1 -	81 -
Modification Item 7 of 13: Modern Manstation (MMS)	16 / 0.000	- 1 -	18 / -	48 / -	- 1 -	48 / -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	821 -
Modification Item 8 of 13: Enhanced Launcher Electronics System (ELES)	271 / 0.000	- / -	10 / -	- 1 -	- 1 -	- / -	8/ -	9/ -	19 / -	45 / -	58 / -	420 / -
Modification Item 9 of 13: SNAP/TROPO	0 / 0.000	- 1 -	14 / -	- 1 -	- 1 -	- 1 -	44 / -	25 / -	26 / -	71 -	- 1 -	116 / -
Modification Item 10 of 13: PATRIOT Maintenance Trainer (PMT)	0 / 0.000	- 1 -	1/ -	- 1 -	- 1 -	- / -	1/ -	21 -	- 1 -	- 1 -	1/ -	5/ -
Modification Item 11 of 13: PATRIOT Multi-Echelon Training (PMET)	0 / 0.000	- / -	21 -	41 -	- 1 -	41 -	41 -	41 -	41 -	41 -	21 -	24 / -
<b>Modification Item 12 of 13:</b> Reconfigurable Table Top Trainers (RT3)	0 / 0.000	- / -	- / -	- 1 -	- 1 -	- / -	- 1 -	69 / -	- 1 -	701 -	- 1 -	139 / -
Modification Item 13 of 13: Digital Sidelobe Canceller (DSLC)	0 / 0.000	- / -	- / -	- 1 -	- 1 -	- / -	- / -	- / -	41 -	19 / -	58 / -	81 / -
Subtotal: Installation	6,720 / 1,667.567	23 / 4.478	151 / 1.100	203 / 1.200	- / -	203 / 1.200	274 / 2.232	262 / 1.600	156 / 1.200	247 / 1.400	7,291 / -	15,327 1,680.77
Total												
Total Cost (Procurement + Support + Installation)	2,732.695	326.438	183.838	241.883	_	241.883	207.692	321.879	354.907	197.147	Continuing	Continuing

LI C50700 - Patriot Mods
Army

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P-1 Line #11

Exhibit P-3a, Indi	vidual Modification: Pl	B 2016 Army				Date: February 2015	5						
<b>Appropriation / B</b> 2032A / 03 / 10	udget Activity / Budge	et Sub Activity:	P-1 Line Item Num C50700 / Patriot Mo			Modification Numb C50700 / PATRIOT							
Modification Item 1 of	lification Item 1 of 13: RAM Mods												
Manufacturer Informa	tion												
Manufacturer Name: R	aytheon			Manufacturer Location: Ar	ndover, MA								
Administrative Leadtim	e (in Months): 2			Production Leadtime (in M	fonths): 6								
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020						
Contract Dates	Dec 2013	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	Dec 2019						
Delivery Dates	Jun 2014	Jun 2015	Jun 2016	Jun 2017	Jun 2018	Jun 2019	Jun 2020						

## Installation Information

Method of Implementation: Depot

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	6,338 / 142.244	- /3.478	- / 0.000	- / 0.000	- 1 -	- /0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	6,338 / 145.722
FY 2014	0 / 0.000	221 -	64 / -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	86 / -
FY 2015	0 / 0.000	- 1 -	24 / -	66 / -	- 1 -	66 / -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	90 / -
FY 2016	0 / 0.000	- 1 -	- 1 -	28/ -	- 1 -	28/ -	821 -	- 1 -	- 1 -	- 1 -	- 1 -	110/ -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	25/ -	75 / -	- 1 -	- 1 -	- 1 -	100 / -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	26 / -	76 / -	- 1 -	- 1 -	102 / -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	26 / -	76 / -	- 1 -	102 / -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	25 / -	66 / -	91/ -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	7,094 / -	7,094 / -
Total	6,338 / 142.244	22 / 3.478	88 / -	947 -	- 1 -	94 / -	107 / -	101 / -	102 / -	101 / -	7,160 / -	14,113 / 145.722

### Installation Schedule

			FY 2	2014			FY 2	2015		-	FY 2	2016			FY 2	2017		,	FY 2	018		,	FY 2	019		_	FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot												
In	6,284	27	27	22	22	22	20	24	24	24	18	28	28	27	27	25	25	25	25	26	26	25	25	26	26	25	25	24	24	7,137	14,113
Out	6,259	27	27	27	22	22	22	20	24	24	24	18	28	28	27	27	25	25	25	25	26	26	25	25	26	26	25	25	24	7,159	14,113

LI C50700 - Patriot Mods
Army

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P-1 Line #11

Exhibit P-3a, Indiv	vidual Modification: Pl	3 2016 Army				Date: February 2015	5
<b>Appropriation / B</b> e 2032A / 03 / 10	udget Activity / Budge	t Sub Activity:	P-1 Line Item Nu C50700 / Patriot N			Modification Numb C50700 / PATRIOT	
Modification Item 2 of	13: Recapitalization		•			•	
Manufacturer Informa	tion						
Manufacturer Name: Va	arious			Manufacturer Location: V	arious		
Administrative Leadtime	e (in Months): 6			Production Leadtime (in I	Months): 12		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates	Apr 2014	Apr 2015	Apr 2016	Apr 2017	Apr 2018	Apr 2019	Apr 2020
Delivery Dates	Apr 2015	Apr 2016	Apr 2017	Apr 2018	Apr 2019	Apr 2020	Apr 2021

## Installation Information

Method of Implementation: Various

mountain tanoan	•											
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	10 / 200.191	- / 0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	10 / 200.191
FY 2014	1 / 1.000	1 / 1.000	1 / 1.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	3 / 3.000
FY 2015	0 / 0.000	- 1 -	- 1 -	1 / 1.000	- 1 -	1 / 1.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 1.000
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 1.000	- 1 -	- 1 -	- 1 -	- 1 -	1 / 1.000
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 1.100	- 1 -	- 1 -	- 1 -	1 / 1.100
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 1.200	- 1 -	- 1 -	1 / 1.200
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 1.400	- 1 -	1 / 1.400
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	12 / -	12/ -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	11 / 201.191	1 / 1.000	1 / 1.000	1 / 1.000	- 1 -	1 / 1.000	1 / 1.000	1 / 1.100	1 / 1.200	1 / 1.400	12/ -	30 / 208.891

### Installation Schedule

			FY 2	2014	-		FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot																				
In	11	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	12	30
Out	10	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	13	30

LI C50700 - Patriot Mods
Army

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P-1 Line #11

Exhibit P-3a, Indiv	idual Modification: P	B 2016 Army				Date: February 2015	;
<b>Appropriation / Bu</b> 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu C50700 / Patriot I			Modification Number C50700 / PATRIOT I	
Modification Item 3 of 1	13: BCP/TCS/CSM		·			·	
Manufacturer Informati	on						
Manufacturer Name: Var	rious			Manufacturer Location: Va	arious		
Administrative Leadtime	(in Months):			Production Leadtime (in N	Months):		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates							
Delivery Dates							

## Installation Information

Method of Implementation: various

memora et imprementation ranous	<u> </u>											
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	79 / 1,324.132	- / 0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	79 / 1,324.132
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	79 / 1,324.132	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	79 / 1,324.132

### Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot																				
In	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79
Out	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79

LI C50700 - Patriot Mods
Army

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P-1 Line #11

Exhibit P-3a, Indi	vidual Modification: P	B 2016 Army				Date: February 201	5
<b>Appropriation / B</b> 2032A / 03 / 10	udget Activity / Budge	et Sub Activity:	P-1 Line Item Nur C50700 / Patriot M			Modification Numb	
Modification Item 4 of	f 13: Combined Crypto Modifi	cation Phase I (CCMPI)					
Manufacturer Informa	ition						
Manufacturer Name: R	aytheon			Manufacturer Location:	Tewksbury, MA		
Administrative Leadtim	e (in Months): 3			Production Leadtime (in	Months): 12		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates	Dec 2013	Dec 2014	Dec 2015				
Delivery Dates	Dec 2014	Dec 2015	Dec 2016				

## Installation Information

Method of Implementation: Yes

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M,										
Prior Years	0 / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- / 0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	- / 0.000
FY 2014	0 / 0.000	- 1 -	16 / 0.100	17 / 0.100	- 1 -	17 / 0.100	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	33 / 0.200
FY 2015	0 / 0.000	- 1 -	- 1 -	20 / 0.100	- 1 -	20 / 0.100	19 / 0.397	- 1 -	- 1 -	- 1 -	- 1 -	39 / 0.497
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	40 / 0.835	38 / 0.500	- 1 -	- 1 -	- 1 -	78 / 1.335
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	16 / 0.100	37 / 0.200	- 1 -	37 / 0.200	59 / 1.232	38 / 0.500	- 1 -	- 1 -	- 1 -	150 / 2.032

### Installation Schedule

			FY 2	014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	-	-	-	-	-	8	8	8	9	10	10	10	9	20	20	20	18	-	-	-	-	-	-	-	-	-	-	-	-	-	150
Out	-	-	-	-	-	-	-	8	8	8	9	10	10	10	9	20	20	20	18	-	-	-	-	-	-	-	-	-	-	-	150

LI C50700 - Patriot Mods
Army

UNCLASSIFIED
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P-1 Line #11

Exhibit P-3a, Indiv	idual Modification: P	B 2016 Army				Date: February 2015	5
<b>Appropriation / Bu</b> 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu C50700 / Patriot			Modification Numb C50700 / PATRIOT	
Modification Item 5 of 1	13: Radar Digital Processor	- Configuration (RDP-C	)				
Manufacturer Informati	on						
Manufacturer Name: Ray	/theon			Manufacturer Location: A	Andover, MA		
Administrative Leadtime	(in Months): 8			Production Leadtime (in	Months): 20		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates	May 2014	May 2015					

## Installation Information

Delivery Dates

Method of Implementation: Various

Dec 2015

Dec 2016

metriod of implementation: various												
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	5 / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- / 0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	5 / 0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	16/ -	- 1 -	16 / -	46 / -	- 1 -	- 1 -	- 1 -	- 1 -	62 / -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	41 -	9/ -	- 1 -	- 1 -	- 1 -	13 / -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	5 / 0.000	- 1 -	- 1 -	16/ -	- 1 -	16/ -	50 / -	9/ -	- 1 -	- 1 -	- 1 -	80 / -

## Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	2020			
	PYS	Q1	Q2	Q3	Q4	тс	Tot																								
In	5	-	-	-	-	-	-	-	-	16	16	15	15	4	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	80
Out	5	-	-	-	-	-	-	-	-	-	-	-	16	16	15	15	4	3	3	3	-	-	-	-	-	-	-	-	-	-	80

 LI C50700 - Patriot Mods
 UNCLASSIFIED

 Army
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 P-1 Line #11

Exhibit P-3a, Indiv	idual Modification: P	B 2016 Army				Date: February 2015	5
Appropriation / Bu 2032A / 03 / 10	idget Activity / Budge	et Sub Activity:	P-1 Line Item Nu C50700 / Patriot N			Modification Numb C50700 / PATRIOT	
Modification Item 6 of	13: Air Defense Artillery Sch	ool Upgrades/ TADSS	·				
Manufacturer Informat	ion						
Manufacturer Name: Va	rious			Manufacturer Location: V	arious		
Administrative Leadtime	(in Months): 6			Production Leadtime (in I	Months): 18		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates	Mar 2014		Mar 2016				
Delivery Dates	Sep 2015		Sep 2017				

#### Installation Information

Method of Implementation: various

	-	,							,	,		,
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	0 / 0.000	- /0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	- / 0.000
FY 2014	0 / 0.000	- 1 -	1/ -	3/ -	- 1 -	3/ -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	41 -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	41 -	- 1 -	- 1 -	- 1 -	41 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	1/ -	3/ -	- 1 -	3/ -	- 1 -	41 -	- 1 -	- 1 -	- 1 -	8/ -

### Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot																				
In	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	8
Out	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	8

LI C50700 - Patriot Mods
Army

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P-1 Line #11

Exhibit P-3a, Indivi	dual Modification: F	PB 2016 Army				Date: February 2015	5
<b>Appropriation / Buo</b> 2032A / 03 / 10	lget Activity / Budg	et Sub Activity:	P-1 Line Item Nu C50700 / Patriot N			Modification Numb C50700 / PATRIOT	
Modification Item 7 of 1	3: Modern Manstation (MI	MS)	·				
Manufacturer Information	n						
Manufacturer Name: Ray	heon			Manufacturer Location: A	Andover, MA		
Administrative Leadtime (	in Months): 6			Production Leadtime (in	Months): 15		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates							
Delivery Dates							

## Installation Information

Method of Implementation: Various

	<u> </u>	,					,					
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	16 / 0.000	- / 0.000	18 / 0.000	48 / 0.000	- 1 -	48 / 0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	82 / 0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	16 / 0.000	- 1 -	18 / -	48 / -	- 1 -	48 / -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	82 / -

### Installation Schedule

																										_					
			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	.020			
	PYS	Q1	Q2	Q3	Q4	тс	Tot																								
In	16	-	-	-	-	6	6	6	6	14	14	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82
Out	16	-	-	-	-	-	6	6	6	6	14	14	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82

LI C50700 - Patriot Mods
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P-1 Line #11

Exhibit P-3a, Indiv	vidual Modification: Pl	3 2016 Army				Date: February 2015	5
<b>Appropriation / B</b> 2032A / 03 / 10	udget Activity / Budge	t Sub Activity:	P-1 Line Item Num C50700 / Patriot Mo			Modification Numb	
Modification Item 8 of	13: Enhanced Launcher Elec						
Manufacturer Informa	tion						
Manufacturer Name: Va	rious			Manufacturer Location: Va	arious		
Administrative Leadtime	e (in Months): 3			Production Leadtime (in N	Months): 18		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates	Dec 2013		Dec 2015	Dec 2016	Dec 2017	Dec 2018	Dec 2019

Jun 2018

Jun 2017

Jun 2019

Jun 2020

Jun 2021

#### Installation Information

Delivery Dates

Method of Implementation: contractor team

Jun 2015

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	271 / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- / 0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	271 / 0.000
FY 2014	0 / 0.000	- 1 -	10 / -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	10 / -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	8/ -	- 1 -	- 1 -	- 1 -	- 1 -	8/ -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	9/ -	- 1 -	- 1 -	- 1 -	91 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	19 / -	- 1 -	- 1 -	19 / -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	45 / -	- 1 -	451 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	25 / -	25 / -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	33 / -	33 / -
Total	271 / 0.000	- 1 -	10 / -	- / -	- 1 -	- / -	8/ -	9/ -	19 / -	45 / -	58 / -	420 / -

#### Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018	FY 2019					FY 2					
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot																
In	271	-	-	-	-	-	-	5	5	-	-	-	-	-	-	4	4	-	-	5	4	-	-	10	9	-	-	23	22	58	420
Out	271	-	-	-	-	-	-	5	5	-	-	-	-	-	-	4	4	-	-	5	4	-	-	10	9	-	-	23	22	58	420

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P-1 Line #11

Exhibit P-3a, Indiv	vidual Modification: ₽	B 2016 Army				Date: February 2015	;				
Appropriation / B 2032A / 03 / 10	udget Activity / Budg	et Sub Activity:	P-1 Line Item Nu C50700 / Patriot N			Modification Number C50700 / PATRIOT I					
Modification Item 9 of	13: SNAP/TROPO		•			'					
Manufacturer Informa	tion										
Manufacturer Name: Te	eleCommunication Systems	(TCS)		Manufacturer Location: T	ampa, FL						
Administrative Leadtime	e (in Months):			Production Leadtime (in I	Months): 9						
Dates	FY 2014	FY 2015	FY 2016	FY 2017 FY 2018 FY 2019							
Contract Dates	Oct 2013			Oct 2016 Oct 2017 Oct 2018 Oct							
Delivery Dates	Jun 2014			Jun 2017 Jun 2018 Jun 2019 Jun 2020							

#### Installation Information

Method of Implementation: Depot, PM, contractor team

<u> </u>												
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	0 / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	- / 0.000
FY 2014	0 / 0.000	- 1 -	14 / -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	14 / -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	44 / -	- 1 -	- 1 -	- 1 -	- 1 -	44 / -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	25 / -	- 1 -	- 1 -	- 1 -	25 / -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	26 / -	- 1 -	- 1 -	26 / -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	71 -	- 1 -	71 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	14 / -	- 1 -	- 1 -	- 1 -	441 -	25 / -	26 / -	71 -	- / -	116 / -

### Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016		FY 2017				FY 2018					FY 2	2019			FY 2				
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	44	-	-	-	25	-	-	-	26	-	-	-	7	-	-	116
Out	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	44	-	-	-	25	-	-	-	26	-	-	-	7	-	116

LI C50700 - Patriot Mods
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P-1 Line #11

Exhibit P-3a, Indiv	idual Modification: Pl	B 2016 Army				Date: February 2015	5
<b>Appropriation / Bu</b> 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu C50700 / Patriot N			Modification Numb	
Modification Item 10 of	f 13: PATRIOT Maintenance	Trainer (PMT)	·				
Manufacturer Informat	ion						
Manufacturer Name: Ra	ytheon			Manufacturer Location: T	ewksbury, MA		
Administrative Leadtime	(in Months): 4			Production Leadtime (in I	Months): 4		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates		Feb 2015		Feb 2017			
Delivery Dates		Jun 2015		Jun 2017	Jun 2018		

#### Installation Information

Method of Implementation: PM office, contractor team

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	0 / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	1/ -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1/ -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1/ -	- 1 -	- 1 -	- 1 -	- 1 -	1/ -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	21 -	- 1 -	- 1 -	- 1 -	21 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1/ -	1/ -
Total	0 / 0.000	- 1 -	1/ -	- 1 -	- 1 -	- 1 -	1/ -	21 -	- 1 -	- 1 -	1/ -	5/ -

### Installation Schedule

			FY 2	2014			FY 2014 FY 2015				FY 2	2016		FY 2017				FY 2018					FY 2	2019			FY 2				
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	1	5
Out	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	1	5

LI C50700 - Patriot Mods
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P-1 Line #11

Exhibit P-3a, Individ	dual Modification: PE	3 2016 Army				Date: February 2015	)
Appropriation / Bud 2032A / 03 / 10	lget Activity / Budge	t Sub Activity:	P-1 Line Item Numb			Modification Number C50700 / PATRIOT	
Modification Item 11 of 1	13: PATRIOT Multi-Echelon	Training (PMET)					
Manufacturer Information	n						
Manufacturer Name: Rayt	heon			Manufacturer Location: Te	ewksbury, MA		
Administrative Leadtime (	in Months): 4			Production Leadtime (in M	fonths): 4		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020

Feb 2017

Jun 2017

Feb 2018

Jun 2018

Feb 2019

Jun 2019

Feb 2020

Jun 2020

Feb 2016

Jun 2016

Feb 2015

Jun 2015

### Installation Information

Contract Dates

Delivery Dates

Method of Implementation: PM team, contractor team

method of impromotivation is in todain,												
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	0 / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	- /0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	21 -	21 -	- 1 -	21 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	41 -
FY 2016	0 / 0.000	- 1 -	- 1 -	21 -	- 1 -	21 -	21 -	- 1 -	- 1 -	- 1 -	- 1 -	41 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	21 -	21 -	- 1 -	- 1 -	- 1 -	41 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	21 -	21 -	- 1 -	- 1 -	41 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	21 -	21 -	- 1 -	41 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	21 -	21 -	41 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	21 -	41 -	- 1 -	41 -	41 -	41 -	41 -	41 -	21 -	241 -

#### Installation Schedule

			FY 2	014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	2020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot
In	-	-	-	-	-	-	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	24
Out	-	-	-	-	-	-	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	24

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P-1 Line #11

Exhibit P-3a, Indivi	dual Modification: Pl	3 2016 Army				Date: February 2015	;
<b>Appropriation / Bu</b> 2032A / 03 / 10	dget Activity / Budge	t Sub Activity:	P-1 Line Item Nu C50700 / Patriot N			Modification Number C50700 / PATRIOT I	
Modification Item 12 of	13: Reconfigurable Table T	op Trainers (RT3)				·	
Manufacturer Informati	on						
Manufacturer Name: Ray	rtheon			Manufacturer Location: T	ewksbury, MA		
Administrative Leadtime	(in Months): 3			Production Leadtime (in I	Months): 9		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates				Dec 2016		Dec 2018	
Delivery Dates				Oct 2017		Oct 2019	

#### Installation Information

Method of Implementation: PM office and contractor team

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	0 / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	- / 0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	69 / -	- 1 -	- 1 -	- 1 -	69 / -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	701 -	- 1 -	701 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	- / -	- / -	- 1 -	- 1 -	- 1 -	69 / -	- 1 -	70 / -	- / -	139 / -

#### Installation Schedule

- 1																																
				FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 20	020			
		PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot																				
	ln	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	17	17	17	-	-	-	-	18	18	17	17	-	139
	Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	17	17	17	-	-	-	-	18	18	17	17	-	139

LI C50700 - Patriot Mods
Army

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Page 22 of 23
P-1 Line #11

Exhibit P-3a, Indiv	idual Modification: Pl	B 2016 Army				Date: February 2015	5
Appropriation / Bu 2032A / 03 / 10	idget Activity / Budge	et Sub Activity:	P-1 Line Item Nu C50700 / Patriot N			Modification Numb	
Modification Item 13 o	f 13: Digital Sidelobe Cancel	ler (DSLC)	·				
Manufacturer Informat	ion						
Manufacturer Name: TB	D			Manufacturer Location: Ti	3D		
Administrative Leadtime	(in Months): 3			Production Leadtime (in N	Nonths): 22		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates				Dec 2016	Dec 2017	Dec 2018	Dec 2019
Delivery Dates				Oct 2018	Oct 2019	Oct 2020	Oct 2021

### Installation Information

Method of Implementation: Various

memora et imprementation ranea		,					,		,	,		,
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	0 / 0.000	- /0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	- / 0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	41 -	11/-	- 1 -	15 / -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	8/ -	24 / -	32 / -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	231 -	23 / -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	11 / -	11 / -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	41 -	19 / -	58 / -	81 / -

#### Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	019			FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot																
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	3	8	8	8	8	34	81
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	3	8	58	81

LI C50700 - Patriot Mods
Army

UNCLASSIFIED
Page 23 of 23
P-1 Line #11

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

CA6700 / ATACMS MODS

Modifications

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Cod	de B Items:			Other Relate	d Program Ele	<b>ements:</b> 0203	3802A	
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	-	30.119	-	30.119	67.544	63.456	17.032	-	-	178.151
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	-	-	-	30.119	-	30.119	67.544	63.456	17.032	-	-	178.151
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	30.119	-	30.119	67.544	63.456	17.032	-	-	178.151
(The following	Resource Sum	mary rows are fo	or informational p	ourposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	_
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	3,011.900	-	3,011.900	-	-	-	-	-	135.270

#### **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) 1 missiles currently have warheads (WHs) that are non-compliant with the 2008 Department of Defense (DoD) policy on cluster munitions (CM). The modification effort will take expired assets and reset them to a 10 year service life. Under this modification effort, a policy compliant WH will replace the existing M74 bomblets and also replace electronics and propellants. The Stockpile Reliability Program (SRP) will supply additional data to support extending the service life. This effort effectively brings the expired inventory back into service, while meeting the DoD CM Policy, to engage imprecisely located/area targets up to 300 kilometers (km).

ATACMS modifications will be performed by Lockheed Martin in Camden, Arkansas.

Secondary	y Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	30.119	-	30.119	67.544	63.456	17.032	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	-	-	30.119	-	30.119	67.544	63.456	17.032	-

UNCLASSIFIED
Page 1 of 5
P-1 Line #12

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Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

CA6700 / ATACMS MODS

Modifications

ID Code (A=Service Ready, B=Not Service Ready):	Į.	Program	Elements for Code	B Items:		Other Related Program I	<b>Elements:</b> 0203802A	
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	t Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)
CA6700 / Army Tactical Missile System (ATACMS) Modifications (Unclassified)	P-3a		- / -	- / -	- / -	- / 30.119	- / -	- / 30.119
Total Gross/Weapon System Cost			- 1 -	- 1 -	- 1 -	- / 30.119	- 1 -	- / 30.119
Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cos (Each) / (\$ M)	t Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)
CA6700 / Army Tactical Missile System (ATACMS) Modifications (Unclassified)	P-3a		- / 67.544	- / 63.456	- / 17.032	- / -	- / -	- / 178.151
Total Gross/Weapon System Cost			- / 67.544	- / 63.456	- / 17.032	- 1 -	- 1 -	- / 178.151

^{*}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 add due to rounding.

#### Justification:

FY16 Base procurement dollars in the amount of \$30.119 million support funding to stand up production capability and modify 10 expired assets and reset their contractual 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.

**UNCLASSIFIED** 

Exhibit P-3a, Individual Modification: PB 2016 Army

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

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

Modification Number / Title:
CA6700 / ATMOMS MODS

CA6700 / Army Tactical Missile System (ATACMS) Modifications

										-		
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	-	30.119	-	30.119	67.544	63.456	17.032	-	-	178.151
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	-	-	-	30.119	-	30.119	67.544	63.456	17.032	-	-	178.151
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	30.119	-	30.119	67.544	63.456	17.032	-	-	178.151
(The following	Resource Sum	mary rows are fo	or informational	purposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)			ĺ	
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands	-	-	-	3,011.900	-	3,011.900	-	-	-	-	-	135.270

### **Description:**

The ATACMS weapon system modernization program implements modifications to the weapon system. Required modifications are identified through various means, including the following: validated requirements documents such as Operational Needs Statement; material deficiencies identified in the field; obsolescence issues; emerging technologies; and software improvements.

Secondar	y Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	30.119	-	30.119	67.544	63.456	17.032	-
Total:	Quantity	-	-	-	<del>-</del>	-	-	-	-	-
Secondary Distribution To	Total Obligation Authority	-	-	30.119	-	30.119	67.544	63.456	17.032	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: Pl	B 2016 Arm	ıy							Date: Feb	ruary 2015		
Appropriation / Budget Activity / Budget 2032A / 03 / 10											cal Missile	System
Models of Systems Affected: ATACMS		Modifi	cation Typ	<b>e:</b> Unclass	sified		Re	lated RDT	&E PEs:			,
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)											
Procurement	-											
Modification Item 1 of 1: CM Compliant Warhead												
A Kits												
Recurring												
Kit Quantity	- 1 -	- 1 -	- / -	10 / 29.272	- 1 -	10 / 29.272	70 / 61.503	60 / 58.175	5 / 16.701	- / -	- 1 -	145 / 165.651
Subtotal: Recurring	- / -	- / -	- / -	- /29.272	- / -	- /29.272	- /61.503	- / 58.175	- /16.701	- / -	- / -	- /165.651
Subtotal: CM Compliant Warhead	- / -	- / -	- / -	10 / 29.272	- / -	10 / 29.272	70 / 61.503	60 / 58.175	5 / 16.701	- / -	- / -	145 / 165.651
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	10 / 29.272	- / -	10 / 29.272	70 / 61.503	60 / 58.175	5 / 16.701	- / -	- / -	145 / 165.651
Installation												
Modification Item 1 of 1: CM Compliant Warhead	- 1 -	- 1 -	- 1 -	10 / 0.847	- 1 -	10 / 0.847	70 / 6.041	60 / 5.281	5 / 0.331	- 1 -	- 1 -	145 / 12.500
Subtotal: Installation	- / -	- / -	- / -	10 / 0.847	- / -	10 / 0.847	70 / 6.041	60 / 5.281	5/0.331	- / -	- / -	145 / 12.500

30.119

30.119

67.544

P-1 Line #12

63.456

17.032

Total Cost (Procurement + Support + Installation)

Total

178.151

Exhibit P-3a, Indiv	idual Modification: PE	3 2016 Army				Date: February 2015	5
<b>Appropriation / Bu</b> 2032A / 03 / 10	dget Activity / Budge	t Sub Activity:	P-1 Line Item Nun CA6700 / ATACMS			Modification Numb CA6700 / Army Tact (ATACMS) Modification	ical Missile System
Modification Item 1 of 1	1: CM Compliant Warhead					·	
Manufacturer Informati	on						
Manufacturer Name: Loc	kheed Martin			Manufacturer Location: 0	Camden, AR		
Administrative Leadtime	(in Months): 3			Production Leadtime (in	Months): 15		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates			Jun 2016	Mar 2017	Mar 2018	Oct 2018	
Delivery Dates			Jan 2018	Oct 2018	Oct 2019	Feb 2020	

#### Installation Information

Method of Implementation: TBD

				FY 2016	FY 2016	FY 2016					То	
	Prior Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	- 1 -	- 1 -	- 1 -	- / 0.000	- 1 -	- /0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- / 0.000	- / 0.000
FY 2014	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	- 1 -	- 1 -	- 1 -	10 / 0.847	- 1 -	10 / 0.847	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	10 / 0.847
FY 2017	- 1 -	- 1 -	- 1 -	- / -	- 1 -	- 1 -	70 / 6.041	- 1 -	- 1 -	- 1 -	- 1 -	70 / 6.041
FY 2018	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	60 / 5.281	- 1 -	- 1 -	- 1 -	60 / 5.281
FY 2019	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	5 / 0.331	- 1 -	- 1 -	5 / 0.331
FY 2020	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	- 1 -	- 1 -	- 1 -	10 / 0.847	- 1 -	10 / 0.847	70 / 6.041	60 / 5.281	5 / 0.331	- 1 -	- 1 -	145 / 12.500

#### Installation Schedule

	FY 2014 FY 2015					FY 2	2016			FY 2	017			FY 2	2018			FY 2	019		_	FY 2	020								
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot
In	-	-	-	-	-	-	-	-	-	-	-	10	-	-	70	-	-	-	60	-	-	5	-	-	-	-	-	-	-	_	145
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	4	17	17	19	17	15	15	15	15	5	145

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LI CA6700 - ATACMS MODS Page 5 of 5 P-1 Line #12 Army

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C57701 / GMLRS MOD

Modifications

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Co	de B Items:			Other Relate	d Program El	ements:		
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	-	18.221	-	18.221	56.395	68.534	0.269	144.003	-	287.422
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	-	-	-	18.221	-	18.221	56.395	68.534	0.269	144.003	-	287.422
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	18.221	-	18.221	56.395	68.534	0.269	144.003	-	287.422
(The following	Resource Sum	mary rows are fo	or informational p	ourposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	337.426	-	337.426	-	-	-	-	-	218.240

#### **Description:**

This effort converts Guided Multiple Launch Rocket system (GMLRS) Unitary rockets to GMLRS Alternative Warhead (AW) rockets. It capitalizes on the 90% commonality between GMLRS Unitary and AW variants. In addition to exchanging the warhead, the conversion process will include replacement of obsolete guidance sets and other critical components in order to reset rocket service life to 10 years.

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. GLMRS 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. GMLRS AW is being developed as a non-cluster munition to replace GMLRS DPICM and is scheduled to enter 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	<i>y</i> Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	18.221	-	18.221	56.395	68.534	0.269	144.003
Total:	Quantity	-	-	-	-	-	-	-	-	-

LI C57701 - GMLRS MOD

Army

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P-1 Line #13

Exhibit P-40, Budget Line Item Justification: PB 2016 Army Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C57701 / GMLRS MOD

Modifications

ID Code (A=Service Ready, B=N	lot Service Ready) :	Pro	ogram Elements	for Code B Items	s:	C	ther Related Pro	gram Elements:		
Secondary	Secondary Distribution FY 2			FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Secondary Distribution	Total Obligation Authority	-	-	18.221	-	18.221	56.395	68.534	0.269	144.003

**UNCLASSIFIED** 

LI C57701 - GMLRS MOD 100 Page 2 of 6 P-1 Line #13 Army

Exhibit P-40, Budget Line Item Justification: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	

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

Modifications

C57701 / GMLRS MOD

ID Code (A=Service Ready, B=Not Service Ready) :		Program	Elements for Code	B Items:	Oth	er Related Program	Elements:	
Exhibits Schedule	·		Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)					
C57701 / Guided Multiple Launch Rocket System (GMLRS) Unitary Modification (Unclassified)	P-3a		- / -	- / -	- / -	- / 18.221	- / -	- / 18.221
Total Gross/Weapon System Cost			- 1 -	- 1 -	- 1 -	- / 18.221	- 1 -	- / 18.221
Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)			
C57701 / Guided Multiple Launch Rocket System (GMLRS) Unitary Modification (Unclassified)	P-3a		- / 56.395	- / 68.534	- / 0.269	- /144.003	- / -	- /287.422
Total Gross/Weapon System Cost			- / 56.395	- / 68.534	- / 0.269	- / 144.003	- 1 -	- / 287.422

*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 add due to rounding.

#### Justification:

FY 2016 Base procurement dollars in the amount of \$18.221 million supports the conversion of 54 GMLRS Unitary rockets to AW rockets for the United States Army.

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.

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P-1 Line #13

Exhibit P-3a, Individual Modification: PB 2016 Army

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

P-1 Line Item Number / Title:
C57701 / GMLRS MOD

Modification Number / Title:
C57701 / Guided Multiple Launch Rocket System (GMLRS) Unitary Modification

	Prior			FY 2016	FY 2016	FY 2016					То	
Resource Summary	Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	-	18.221	-	18.221	56.395	68.534	0.269	144.003	-	287.422
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	-	-	-	18.221	-	18.221	56.395	68.534	0.269	144.003	-	287.422
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	18.221	-	18.221	56.395	68.534	0.269	144.003	-	287.422
(The following	Resource Sum	mary rows are fo	or informational p	ourposes only. Th	ne corresponding	g budget request:	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	337.426	-	337.426	-	-	-	-	-	218.240

### **Description:**

Guided Multiple Launch Rocket system (GMLRS) Weapon System Modernization Program implements modifications to the weapon system. Required modifications are identified through various means, including CPD, TAMR, Operational Needs Statement, materiel deficiencies identified in the field, obsolescence issues, emerging technologies, Crew recommendations, and software upgrades/improvements.

				FY 2016	FY 2016	FY 2016				
Seconda	ary Distribution	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	18.221	-	18.221	56.395	68.534	0.269	144.003
Total:	Quantity		-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	-	-	18.221	-	18.221	56.395	68.534	0.269	144.003

LI C57701 - GMLRS MOD
Army

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P-1 Line #13

Exhibit P-3a, Individual Modification:	PB 2016 Arm	าy							Date: Feb	ruary 2015	j	
Appropriation / Budget Activity / Bud 2032A / 03 / 10	get Sub Acti	vity:		tem Numb GMLRS M					Modification Number / Title: C57701 / Guided Multiple Launch Roc System (GMLRS) Unitary Modification			
Models of Systems Affected: TBD		Modifi	cation Typ	e: Unclass	sified		Re	lated RDT	&E PEs:			
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)								
Procurement				<u> </u>				<u> </u>			<u> </u>	
Modification Item 1 of 1: GMLRS UNITARY/AW Conversion												
A Kits												
Recurring												
Kit Quantity	- 1 -	- 1 -	- 1 -	54 / 4.086	- 1 -	54 / 4.086	690 / 49.575	744 / 57.417	- 1 -	1,608 / 123.710	- 1 -	3,096 / 234.788
Government Test	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /3.290	- / 0.269	- / 3.423	- 1 -	- / 6.982
Facilitization	- 1 -	- 1 -	- 1 -	- / 13.582	- 1 -	- / 13.582	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 13.582
Subtotal: Recurring	- / -	- / -	- / -	- /17.668	- / -	- /17.668	- /49.575	- /60.707	- /0.269	- /127.133	- / -	- /255.352
Subtotal: GMLRS UNITARY/AW Conversion	- / -	- / -	- / -	54 / 17.668	- / -	54 / 17.668	690 / 49.575	744 / 60.707	- /0.269	1,608 / 127.133	- / -	3,096 / 255.352
Subtotal: Procurement, All Modification Items	- / -	- / -	- / -	54 / 17.668	- / -	54 / 17.668	690 / 49.575	744 / 60.707	- /0.269	1,608 / 127.133	- / -	3,096 / 255.352
Installation												
Modification Item 1 of 1: GMLRS UNITARY/AW Conversion	- 1 -	- 1 -	- 1 -	54 / 0.553	- 1 -	54 / 0.553	690 / 6.820	744 / 7.827	- 1 -	1,608 / 16.870	- 1 -	3,096 / 32.070
Subtotal: Installation	- / -	- / -	- / -	54 / 0.553	- / -	54 / 0.553	690 / 6.820	744 / 7.827	- / -	1,608 / 16.870	- / -	3,096 / 32.070
Total												•
Total Cost (Procurement + Support + Installation)	_	-	_	18.221	-	18.221	56.395	68.534	0.269	144.003	_	287.422

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Exhi	oit P-	-3a, Ir	ndivi	laub	Modif	icatio	n: PE	3 20	)16 Arm	ıy														Date	: Feb	ruary	/ 201	5			
<b>Appr</b> 2032				lget A	Activi	ty / B	udge	t S	ub Activ	vity:			<b>Line I</b> 701 /				itle:							Modification Number / Title: C57701 / Guided Multiple Launch Rocket System (GMLRS) Unitary Modification							
Modif	cation	ı Item	1 of 1:	GMLF	RS UNI	TARY/	AW Co	nver	sion																						
Manu	acture	er Info	rmatio	n																											
Manuf	acturer	r Name	e: Lock	heed I	Martin											Manuf	acture	r Locati	ion: Ca	amden,	AR										
Admin	istrativ	e Lead	dtime (	in Mon	ths): 3											Produ	ction L	.eadtime	e (in M	Months):	17										
	Dat	tes	-		FY 2	2014			FY 2	015			FY 2	2016			FY 2	2017			FY 2	2018			FY	2019			FY	2020	
Contra	ct Date	es											Dec	2015			Dec	2016			Dec	2017			Dec	2018			Dec	2019	
Delive	ry Date	es												2021																	
Install	ation I	Inform	ation																												
Metho	d of In	nplem	entati	on: TB	D																										
						Pri	ior Yea	ırs	FY 201	4	FY 20	15	FY 2			2016 CO		2016 otal	FY	Y 2017	F	Y 2018	3	FY 201	9	FY 20	20	To Comp		To	tal
	lı	nstalla	ition C	ost			ty (Each)		Qty (Each		Qty (Eac		Qty (Ea			Each) I ost (\$ M)		(Each) I Cost (\$ M)		y (Each) I I Cost (\$ M)		ty (Each)		Qty (Each		Qty (Ead		Qty (Ea		Qty (E	
Prior Ye	ars						- 1	-	- 1	-	-	1 -	-	1 0.000	-	- 1 -	١ .	10.000	)	- /0.000	0	- /0.	000	- /0	0.000	- 1	0.000	-	10.000	-	/ 0.000
FY 2014							- 1	-	- 1	-	-	1 -	-	1 -	-	- / -		- 1 -		- 1 -		- 1	-	- 1	-	-	1 -	-	1 -	-	1 -
FY 2015							- 1	-	- 1	-	-	1 -	-	1 -	-	- / -		- 1 -		- 1 -		- 1	-	- 1	-	-	1 -	-	1 -	-	1 -
FY 2016							- 1	-	- 1	_	-	1 -		1 0.553		- 1 -		54 / 0.553		- 1 -		- 1		- 1			1 -		1 -		4 / 0.553
FY 2017							- 1		- 1		-	1 -		1 -		- 1 -		- 1 -	(	690 / 6.820	0	- 1		- 1			1 -		1 -		0 / 6.820
FY 2018							- 1	$\rightarrow$	- 1		-	1 -		1 -		- 1 -		- 1 -		- 1 -	_	744 / 7.	-	- 1			1 -		1 -		4 / 7.827
FY 2019							- 1	_	- 1			1 -		1 -		- 1 -		- / -		- 1 -		- 1		- 1			1 -		1 -		1 -
FY 2020							- 1	_	- 1	_		1 -		1 -		. / -		- 1 -		- 1 -	-	- 1		- 1			1 -		1 -		1 -
To Com	olete						- 1		- 1	_		1 -		1 -		. / -		- / -		- / -		- 1		- 1		1,608 /			1 -		/ 16.870
Total	-4: (	C = b = d					- 1	-	- 1	-		1 -	54	/ 0.553		- / -		54 / 0.553	5 '	690 / 6.820	0	744 / 7.	827	- 1	-	1,608 <i>I</i> 1	16.870	_	1 -	3,096	/ 32.070
Install	ation	Scnea		2014	_		FY 2	2045			EV 1	2016	_		EV	2017			EV	2018			EV	′ 2019			EV	2020	_		1
	PYS	04		_	04	04				04			04	01			04	04			04	01			04	01			04	TC	Tot
In	713	Q1	Q2	Q3	Q4	Q1	Q2	Q	3 Q4	Q1	<b>Q2</b> 54	Q3	Q4	Q1	Q2	<b>Q3</b> 690	Q4	Q1 -	Q2	<b>Q3</b>	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	<b>Tot</b>
Out	-	_		<del>-</del>	-   -		_	_	-	_	- 54		<del>-</del>	<del>-</del>	-	27	- 27	-	230		230	-	24	8 248	- 248	-   -	-   _	<u> </u>	-   _		1,488
Jul	-	I -	-	_	1 -	_	-		1 - 1	-	1 -	_	1 -	I -	-	~'		-	200		200	-	24	270	270	1 -	1	1 -	1	I -	1,700

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Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C20000 / Stinger Mods

Modifications

ID Code (A=Service Ready, B=Not Service Ready) :		Program Ele	ments for Co	de B Items:			Other Relate	d Program El	3801A			
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	164.388	37.252	1.355	2.216	-	2.216	-	-	-	-	-	205.211
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	164.388	37.252	1.355	2.216	-	2.216	-	-	-	-	-	205.211
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	164.388	37.252	1.355	2.216	-	2.216	-	-	-	-	-	205.211
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	g budget request	s are document	ed elsewhere.)	*	*		
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
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.

This effort funds the procurement and installation of the newly developed Proximity Fuze (Prox Fuze) into the Stinger Block I missile. The Prox Fuze will improve system effectiveness against the evolving UAS threat. Unmanned Aerial System Defense (UAS-D) is a requirement of the Operational Requirements Document (ORD) for the Stinger Guided Missile System and validated by the Deputy Chief of Staff, G–3/5/7, Current and Future Warfighting Capabilities Division (DAMO–CIC) in memo dated 28 May 2013.

The U.S. Army Stinger inventory is currently projected to fall below the FY15-19 Total Army Munitions Requirement (TAMR), dated 2 June 2014, of 3,268 missiles by the end of FY 2018. The incorporation of Stinger Prox Fuze with a Service Life Extension Program (SLEP) will provide Stinger Block I missiles with a 10-year shelf life by replacing items susceptible to degradation due to aging.

Secondar	y Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	37.252	1.355	2.216	-	2.216	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	37.252	1.355	2.216	-	2.216	-	-	-	-

LI C20000 - Stinger Mods

Army

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P-1 Line #14

Exhibit P-40, Budget Line Item Justification: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	

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

C20000 / Stinger Mods

Modifications

ID Code (A=Service Ready, B=Not Service Ready) :		Program Elements for Code B Items: Other Related Program Elements: 0203801						
Exhibits Schedule	·		Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)					
C21300 / Stinger Proximity Fuze (TBD)	P-3a		- / 164.388	- / 37.252	- / 1.355	- / 2.216	- / -	- / 2.216
Total Gross/Weapon System Cost			- / 164.388	- / 37.252	- / 1.355	- / 2.216	- 1 -	- / 2.216
Exhibits Schedule	•		FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)
C21300 / Stinger Proximity Fuze (TBD)	P-3a		- / -	- / -	- / -	- / -	- / -	- /205.211
Total Gross/Weapon System Cost			- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 205.211

^{*}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 add due to rounding.

#### Justification:

FY2016 Base Procurement dollars in the amount of \$2.216 million supports the integration of the Proximity Fuze into the Stinger Block I missiles and delivery to the final acceptance point.

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

LI C20000 - Stinger Mods
Army

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Page 2 of 5
P-1 Line #14

Exhibit P-3a, Individual Modification: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Modification Number / Title:
2032A / 03 / 10	C20000 / Stinger Mods	C21300 / Stinger Proximity Fuze

2032A / 03 / 10			020	Judu I Sting	ei wous				CZ 1300	7 Sunger P	TOXITIILY FUZ	.e
	Prior			FY 2016	FY 2016	FY 2016					То	
Resource Summary	Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	164.388	37.252	1.355	2.216	-	2.216	-	-	-	-	-	205.211
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	164.388	37.252	1.355	2.216	-	2.216	-	-	-	-	-	205.211
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	164.388	37.252	1.355	2.216	-	2.216	-	-	-	-	-	205.211
(The following	Resource Sum	mary rows are fo	or informational p	urposes only. Th	ne corresponding	g budget requests	s are documente	ed elsewhere.)	1			
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 and helicopters. The missile is delivered as a certified round and requires no field testing or maintenance.

This effort funds the procurement and installation of the newly developed Proximity Fuze (Prox Fuze) into the Stinger Block I missile. The Prox Fuze will improve system effectiveness against the evolving UAS threat. Unmanned Aerial System Defense (UAS-D) is a requirement of the Operational Requirements Document (ORD) for the Stinger Guided Missile System.

The U.S. Army Stinger inventory is currently projected to fall below the FY15-19 Total Army Munitions Requirement (TAMR), dated 2 June 2014, of 3,268 missiles by the end of 2018. The incorporation of Stinger Prox Fuze with a Service Life Extension Program (SLEP) will provide Stinger Block I missiles with a 10-year shelf life by replacing items susceptible to degradation due to aging.

				FY 2016	FY 2016	FY 2016				
Seconda	ary Distribution	FY 2014	FY 2015	Base	осо	Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	37.252	1.355	2.216	-	2.216	-	-	-	-
Total:	Quantity	-	-	-	=	-		<u>-</u>		-
Secondary Distribution	Total Obligation Authority	37.252	1.355	2.216	-	2.216	-	-	-	-

LI C20000 - Stinger Mods
Army

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P-1 Line #14

Exhibit P-3a, Individual Modification: PB 2016 ArmyDate: February 2015Appropriation / Budget Activity / Budget Sub Activity:<br/>2032A / 03 / 10P-1 Line Item Number / Title:<br/>C20000 / Stinger ModsModification Number / Title:<br/>C21300 / Stinger Proximity Fuze

Models of Systems Affected: FIM-92E Stinger Block I | Modification Type: TBD | Related RDT&E PEs:

Missile

MISSIE												,
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ I										
Procurement												-
Modification Item 1 of 1: Stinger Proximity Fuze												
A Kits												
Recurring												
Hardware	0 / 164.388	850 / 30.342	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	850 / 194.73
Engineering Services	- 1 -	- / 0.762	- / 0.252	- / 0.489	- 1 -	- / 0.489	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 1.50
Govt PM/Admin Support	- 1 -	- / 1.651	- / 0.390	- / 0.381	- 1 -	- / 0.381	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /2.42
Other Flyaway Support	- 1 -	- 14.497	- / 0.399	- / 1.023	- 1 -	- /1.023	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 5.91
Subtotal: Recurring	- /164.388	- /37.252	- /1.041	- /1.893	- / -	- /1.893	- / -	- / -	- / -	- / -	- / -	- /204.57
Subtotal: Stinger Proximity Fuze	0 / 164.388	850 / 37.252	- /1.041	- /1.893	- / -	- /1.893	- / -	- / -	- / -	- / -	- / -	850 / 204.57
Subtotal: Procurement, All Modification Items	0 / 164.388	850 / 37.252	- /1.041	- /1.893	- / -	- /1.893	- / -	- / -	- / -	- / -	- / -	850 / 204.57
Installation												
Modification Item 1 of 1: Stinger Proximity Fuze	0 / 0.000	- 1 -	425 / 0.314	425 / 0.323	- 1 -	425 / 0.323	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	850 / 0.63
Subtotal: Installation	0 / 0.000	- / -	425 / 0.314	425 / 0.323	- / -	425 / 0.323	- / -	- / -	- / -	- / -	- / -	850 / 0.63
Total												
Total Cost (Procurement + Support + Installation)	164.388	37.252	1.355	2.216	_	2.216	_	_	_	_	_	205.21

LI C20000 - Stinger Mods Army

Exhibit P-3a, Indivi	dual Modification: P	B 2016 Army				Date: February 2015			
<b>Appropriation / Bu</b> 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu C20000 / Stinger			Modification Numb			
Modification Item 1 of 1	: Stinger Proximity Fuze		·						
Manufacturer Information	on								
Manufacturer Name: McA	Alester Army Ammunition Pl	ant		Manufacturer Location: I	McAlester, OK				
Administrative Leadtime	(in Months): 3			Production Leadtime (in	Months): 21				
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020		
Contract Dates	Jan 2014								
Delivery Dates	Jun 2015								

### Installation Information

Method of Implementation: Depot Upgrade

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	0 / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- 1 -	- 1 -	- 1 -	- 1 -	- /0.000	- / 0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	425 / 0.314	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	425 / 0.314
FY 2016	0 / 0.000	- 1 -	- 1 -	425 / 0.323	- 1 -	425 / 0.323	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	425 / 0.323
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- / -	425 / 0.314	425 / 0.323	- 1 -	425 / 0.323	- / -	- 1 -	- / -	- 1 -	- 1 -	850 / 0.637

#### Installation Schedule

				FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	2020			
	P	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot
In		-	-	425	425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 1	-	-	850
Oı	ıt	-	-	-	-	-	-	-	-	425	425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	850

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Army

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P-1 Line #14

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

CE8710 / AVENGER MODS

Modifications

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Co	de B Items:			Other Relate	d Program El	ements:		
	Prior			FY 2016	FY 2016	FY 2016					То	
Resource Summary	Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	50.723	-	5.611	6.171	-	6.171	37.579	63.312	28.606	-	-	192.002
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	50.723	-	5.611	6.171	-	6.171	37.579	63.312	28.606	-	-	192.002
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	50.723	-	5.611	6.171	-	6.171	37.579	63.312	28.606	-	-	192.002
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

#### **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. 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 beyond FY2018. Avenger fills a capability gap which will be permanently filled by Indirect Fire Protection Capability Increment 2 Intercept (IFPC2-I) which fully fields in FY30.

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 a fleet-wide replacement and upgrade of the TC that will be able to handle the increased targeting capability realized with the latest version of the Forward Area Air Defense (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 FY30. 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 Voice Intercommunication System (VIC) 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 AN/VIC-I is not supportable beyond FY2018. The VIC update will upgrade the system from analog to digital and ensure that Avenger meets its intercommunication requirements until a replacement system for Avenger can be fielded.

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 FY30. The AFCC-Revised (AFCC-R) will undergo software and hardware upgrades that will enable the system to handle

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P-1 Line #15

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

CE8710 / AVENGER MODS

Modifications

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

Other Related Program Elements:

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.

Mode 5/Identification Friend or Foe (IFF) replaced the current Avenger IFF system. The Mode 5 is required to phase out Mode 4 capability. Mode 4 will no longer be supportable beyond December 2020. Incorporation of Mode 5 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).

Seconda	ary Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	5.611	3.042	-	3.042	34.346	20.679	7.270	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	3.129	-	3.129	3.233	42.633	21.336	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	<b>Total Obligation Authority</b>	-	5.611	6.171	-	6.171	37.579	63.312	28.606	-

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LI CE8710 - AVENGER MODS Army

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

CE8710 / AVENGER MODS

Modifications

ID Code (A=Service Ready, B=Not Service Ready) :		Progran	Elements for Code	B Items:	Oth	ner Related Program	Elements:	
Exhibits Schedule	•		Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
CE8710 / Avenger Modification (Operational)	P-3a		- / 50.723	- / -	- / 5.611	- / 6.171	- / -	- / 6.171
Total Gross/Weapon System Cost			- / 50.723	- 1 -	- / 5.611	- / 6.171	- 1 -	- / 6.171
Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
CE8710 / Avenger Modification (Operational)	P-3a		- / 37.579	- / 63.312	- / 28.606	- / -	- / -	- / 192.002
Total Gross/Weapon System Cost			- / 37.579	- / 63.312	- / 28.606	- 1 -	- 1 -	- / 192.002

^{*}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 add due to rounding.

#### Justification:

FY16 Base procurement dollars in the amount of \$6.171 million supports the acquisition of 60 M3P Machine Guns and 99 Targeting Consoles.

The P-40 Secondary Distribution table shows the number of Line Replaceable Units (LRU) kits procured for Active and National Guard units and are not representative of procuring full-up Avenger systems.

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

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Exhibit P-3a, Individual Modification: PB 2016 Army

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

Date: February 2015

Modification Number / Title:
CE8710 / AVENGER MODS

CE8710 / Avenger Modification

2032A / 03 / 10			CE	87107AVEI	NGER MOL	)S			CE8710	<i>I</i> Avenger	Modification	
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	50.723	-	5.611	6.171	-	6.171	37.579	63.312	28.606	-	-	192.002
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	50.723	-	5.611	6.171	-	6.171	37.579	63.312	28.606	-	-	192.002
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	50.723	-	5.611	6.171	-	6.171	37.579	63.312	28.606	-	-	192.002
(The following	Resource Sum	mary rows are fo	or informational p	ourposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

### **Description:**

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) 30 timeframe. Avenger fills a capability gap which will be permanently filled by Indirect Fire Protection Capability Increment 2 Intercept (IFPC2-I). 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 VIC intercom system will be upgraded from digital to analog. Mode 5 cooperative target identification functions will be added to improve the system IFF capabilities. New targeting consoles will be placed on all Avengers. Newly redesigned Environmental Control Unit/Prime Power Units (ECU/PPU) will be procured for all Active Army Avengers. A mix of missiles may be required to launch on this platform until systems are completely retired from the Operational Army.

Second	ary Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	5.611	3.042	-	3.042	34.346	20.679	7.270	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	3.129	=	3.129	3.233	42.633	21.336	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	-	5.611	6.171	=	6.171	37.579	63.312	28.606	-

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LI CE8710 - AVENGER MODS Army

Exhibit P-3a, Individual Modification: PB 2016 Army

Appropriation / Budget Activity / Budget Sub Activity:

2032A / 03 / 10

P-1 Line Item Number / Title:

CE8710 / AVENGER MODS

CE8710 / Avenger Modification

Related RDT&F PFs:

Models of Systems Affected: Avenger Basic and Slew-to-Cue Systems

Modification Type: Operational Related RDT&E PEs:

Slew-to-Cue Systems												
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)											
Procurement		-								-		
Modification Item 1 of 6: M3P Machine Gun												
A Kits												
Recurring												
Kit Quantity	- 1 -	- 1 -	66 / 3.031	60 / 2.798	- 1 -	60 / 2.798	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	126 / 5.829
Engineering Services	- 1 -	- 1 -	- / 0.031	- / 0.031	- 1 -	- / 0.031	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.062
Gov't SEPM	- 1 -	- 1 -	- / 0.053	- / 0.049	- 1 -	- / 0.049	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.102
Interim Contractor Support	- 1 -	- 1 -	- / 0.128	- / 0.108	- 1 -	- / 0.108	- / -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.236
Spares/Repairs	- 1 -	- 1 -	- / 0.123	- / 0.064	- 1 -	- / 0.064	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.187
Subtotal: Recurring	- / -	- / -	- /3.366	- /3.050	- / -	- /3.050	- / -	- / -	- / -	- / -	- / -	- /6.416
Subtotal: M3P Machine Gun	- / -	- / -	66 / 3.366	60 / 3.050	- / -	60 / 3.050	- / -	- / -	- / -	- / -	- / -	126 / 6.416
<b>Modification Item 2 of 6:</b> Voice Intercommunication System												
A Kits												
Recurring												
Kit Quantity	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	393 / 7.050	- 1 -	- 1 -	- 1 -	393 / 7.050
Engineering Services	- 1 -	- / -	- 1 -	- 1 -	- 1 -	- 1 -	- / -	- /2.006	- / 0.166	- / -	- 1 -	- /2.172
New Equipment Training	- 1 -	- / -	- 1 -	- 1 -	- 1 -	- 1 -	- / -	- / 0.905	- / 0.787	- / -	- 1 -	- / 1.692
Interim Contractor Support	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.239	- / 0.298	- 1 -	- 1 -	- / 0.537
Spares/Repair Parts	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.196	- 1 -	- 1 -	- 1 -	- / 0.196
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- /10.396	- /1.251	- / -	- / -	- /11.647
Subtotal: Voice Intercommunication System	- / -	- / -	- / -	- / -	- / -	- / -	- / -	393 / 10.396	- /1.251	- / -	- / -	393 / 11.647
<b>Modification Item 3 of 6:</b> Avenger Fire Control Computer												
A Kits												
Recurring												
Kit Quantity	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	165 / 6.452	- 1 -	- 1 -	- 1 -	165 / 6.452
System Engineering/Program Management	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / -	- / 0.427	- / 0.102	- 1 -	- 1 -	- / 0.529
Spares/Repair Parts	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.648	- 1 -	- 1 -	- 1 -	- / 0.648
Transportation	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.214	- 1 -	- 1 -	- / 0.214
New Equipment Training	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.612	- 1 -	- 1 -	- / 0.61
Engineering Services	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.156	- / 0.030	- 1 -	- 1 -	- / 0.18
	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- /7.683	- /0.958	- / -	- / -	- /8.641

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Exhibit P-3a, Individual Modification: PB 2016 Army

Appropriation / Budget Activity / Budget Sub Activity:

2032A / 03 / 10

Date: February 2015

Modification Number / Title:

CE8710 / AVENGER MODS

CE8710 / Avenger Modification

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

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M										
Subtotal: Avenger Fire Control Computer	- / -	- / -	- / -	- / -	- / -	- / -	- / -	165 / 7.683	- /0.958	- / -	- / -	165 / 8.64
<b>Modification Item 4 of 6:</b> Mode 5/Identification Friend or Foe		'	'	'		'	'	'				
A Kits												
Recurring												
Kit Quantity	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	140 / 27.718	155 / 27.996	98 / 17.396	- 1 -	- 1 -	393 / 73.11
Engineering Services	- 1 -	- 1 -	- 1 -	- / -	- / -	- 1 -	- / 0.265	- / 0.812	- / 0.194	- 1 -	- 1 -	- / 1.27
Program Management Support	- 1 -	- 1 -	- 1 -	- 1 -	- / -	- 1 -	- / 0.064	- / 0.093	- / 0.082	- 1 -	- 1 -	- / 0.23
Transportation	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.220	- / 0.245	- / 0.151	- 1 -	- 1 -	- / 0.61
Interim Contractor Support	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 1.569	- /1.974	- /1.336	- 1 -	- 1 -	- /4.87
Spares/Repairs	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /1.233	- /1.271	- / 0.898	- 1 -	- 1 -	- /3.40
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- /31.069	- /32.391	- /20.057	- / -	- / -	- /83.51
Subtotal: Mode 5/Identification Friend or Foe	- / -	- / -	- / -	- / -	- / -	- / -	140 / 31.069	155 / 32.391	98 / 20.057	- / -	- / -	393 / 83.51
Modification Item 5 of 6: Targeting Console			1									
A Kits												
Recurring												
Kit Quantity	- 1 -	- 1 -	66 / 1.575	99 / 2.204	- 1 -	99 / 2.204	- / -	- 1 -	- 1 -	- 1 -	- 1 -	165 / 3.77
Engineering Services	- 1 -	- 1 -	- / 0.237	- / 0.204	- 1 -	- / 0.204	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.44
SE/PM	- 1 -	- 1 -	- / 0.144	- /0.220	- 1 -	- /0.220	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.36
Spares/Repairs	- 1 -	- 1 -	- /0.072	- / 0.110	- / -	- /0.110	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.18
NET	- 1 -	- 1 -	- /0.009	- / 0.013	- / -	- / 0.013	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.02
Common Requirements	- 1 -	- 1 -	- / 0.208	- / 0.317	- 1 -	- / 0.317	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.52
Subtotal: Recurring	- / -	- / -	- /2.245	- /3.068	- / -	- /3.068	- / -	- / -	- / -	- / -	- / -	- /5.31
Subtotal: Targeting Console	- / -	- / -	66 / 2.245	99 / 3.068	- / -	99 / 3.068	- / -	- / -	- / -	- / -	- / -	165 / 5.31
Modification Item 6 of 6: Environmental Control Unit/ Prime Power Unit			I									<u> </u>
A Kits												
Recurring												
Kit Quantity	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	29 / 3.341	53 / 6.228	17 / 2.038	- 1 -	- 1 -	99 / 11.60
Spares/Repairs	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.215	- / 0.734	- /0.077	- 1 -	- 1 -	- /1.02
Transportation	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.215	- / 0.734	- /0.077	- 1 -	- 1 -	- /1.02
NET	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.646	- /2.201	- / 0.231	- 1 -	- 1 -	- /3.07
Engineering Services	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.204	- / 0.381	- / 0.125	- 1 -	- 1 -	- / 0.71

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Exhibit P-3a, Individual Modification: PB 2016 Army Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Modification Number / Title: 2032A / 03 / 10 CE8710 / AVENGER MODS CE8710 / Avenger Modification

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

Slew-to-Cue Systems

Army

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M										
SE/PM	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 0.257	- / 0.509	- / 0.313	- 1 -	- 1 -	- /1.079
Subtotal: Recurring	- / -	- / -	- / -	- / -	- / -	- / -	- /4.878	- /10.787	- /2.861	- / -	- / -	- / 18.526
Subtotal: Environmental Control Unit/Prime Power Unit	- / -	- / -	- / -	- / -	- / -	- / -	29 / 4.878	53 / 10.787	17 / 2.861	- / -	- / -	99 / 18.526
Subtotal: Procurement, All Modification Items	- / -	- / -	132 / 5.611	159 / 6.118	- / -	159 / 6.118	169 / 35.947	766 / 61.257	115 / 25.127	- / -	- / -	1,341 / 134.060
Installation												
Modification Item 1 of 6: M3P Machine Gun	0 / 0.000	- 1 -	- 1 -	126 / 0.037	- 1 -	126 / 0.037	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	126 / 0.037
Modification Item 2 of 6: Voice Intercommunication System	0 / 0.000	- 1 -	- / -	- 1 -	- / -	- / -	- / -	- 1 -	393 / 1.788	- / -	- / -	393 / 1.788
Modification Item 3 of 6: Avenger Fire Control Computer	0 / 0.000	- 1 -	- / -	- 1 -	- 1 -	- / -	- / -	- 1 -	165 / 0.540	- 1 -	- / -	165 / 0.540
<b>Modification Item 4 of 6:</b> Mode 5/Identification Friend or Foe	0 / 0.000	- 1 -	- / -	- 1 -	- / -	- / -	140 / 1.261	155 / 1.363	98 / 0.925	- / -	- / -	393 / 3.549
Modification Item 5 of 6: Targeting Console	0 / 0.000	- 1 -	- / -	165 / 0.016	- 1 -	165 / 0.016	- / -	- 1 -	- 1 -	- 1 -	- / -	165 / 0.016
Modification Item 6 of 6: Environmental Control Unit/ Prime Power Unit	0 / 0.000	- 1 -	- / -	- 1 -	- / -	- / -	29 / 0.371	53 / 0.692	17 / 0.226	- / -	- / -	99 / 1.289
Subtotal: Installation	0 / 0.000	- / -	- / -	291 / 0.053	- / -	291 / 0.053	169 / 1.632	208 / 2.055	673 / 3.479	- / -	- / -	1,341 / 7.219
Total												
Total Cost (Procurement + Support + Installation)	50.723	_	5.611	6.171	-	6.171	37.579	63.312	28.606	-	_	192.002

Exhibit P-3a, Indiv	ridual Modification: Pl	B 2016 Army				Date: February 2015	5
Appropriation / Bu 2032A / 03 / 10	udget Activity / Budge	et Sub Activity:	P-1 Line Item Nu CE8710 / AVENG			Modification Number CE8710 / Avenger M	
Modification Item 1 of	6: M3P Machine Gun		•			'	
Manufacturer Informat	ion						
Manufacturer Name: FN	l Herstal			Manufacturer Location: V	rginia, South Carolina		
Administrative Leadtime	(in Months): 1			Production Leadtime (in N	Months): 10		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates		Mar 2015	Dec 2015	Nov 2016			
Delivery Dates		Jan 2016	May 2016	Apr 2017			

### Installation Information

Method of Implementation: Replacement in Field

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	0 / 0.000	- 1 -	- / 0.000	- / 0.000	- 1 -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- / 0.000	- /0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	- 1 -	66 / 0.019	- 1 -	66 / 0.019	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	66 / 0.019
FY 2016	0 / 0.000	- 1 -	- 1 -	60 / 0.018	- 1 -	60 / 0.018	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	60 / 0.018
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	- 1 -	126 / 0.037	- 1 -	126 / 0.037	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	126 / 0.037

#### Installation Schedule

Army

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot																				
In	-	-	-	-	-	-	-	-	-	-	33	33	30	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126
Out	-	-	-	-	-	-	-	-	-	-	33	33	30	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126

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LI CE8710 - AVENGER MODS Page 8 of 13 P-1 Line #15

Exhibit P-3a, Indiv	idual Modification: Pl	3 2016 Army				Date: February 2015	5
<b>Appropriation / Bu</b> 2032A / 03 / 10	idget Activity / Budge	t Sub Activity:	P-1 Line Item Nu CE8710 / AVENG			Modification Numb CE8710 / Avenger M	
Modification Item 2 of	6: Voice Intercommunication	System					
Manufacturer Informat	ion						
Manufacturer Name: CE	COM Managed Item			Manufacturer Location:	Гоbyhanna, PA		
Administrative Leadtime	(in Months): 1			Production Leadtime (in	Months): 9		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates					Jan 2018		
Delivery Dates					Oct 2019		

### Installation Information

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

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	0 / 0.000	- 1 -	- / 0.000	- / 0.000	- 1 -	- /0.000	- /0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- / 0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	393 / 1.788	- 1 -	- 1 -	393 / 1.788
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	393 / 1.788	- 1 -	- 1 -	393 / 1.788

#### Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	019			FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot																
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	106	106	106	-	-	-	-	-	393
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	106	106	106	-	-	-	-	-	393

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Exhibit P-3a, Indivi	dual Modification: P	B 2016 Army				Date: February 201	5
<b>Appropriation / Bu</b> 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nui CE8710 / AVENG			Modification Numb	
Modification Item 3 of 6	: Avenger Fire Control Cor	nputer	·				
Manufacturer Information	on						
Manufacturer Name: Boe	ing			Manufacturer Location:	Everett, Washington		
Administrative Leadtime	(in Months): 1			Production Leadtime (in	Months): 9		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates					Apr 2018		
Delivery Dates					Jan 2019		

### Installation Information

Method of Implementation: Integration and Installation in the Field

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M										
Prior Years	0 / 0.000	- 1 -	- / 0.000	- / 0.000	- 1 -	- /0.000	- /0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- / 0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	165 / 0.540	- 1 -	- 1 -	165 / 0.540
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	- / -	- / -	- 1 -	- 1 -	- / -	- 1 -	165 / 0.540	- 1 -	- / -	165 / 0.540

### Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	2020			
	PYS	Q1	Q2	Q3	Q4	тс	Tot																								
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	90	-	-	-	-	-	-	165
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	90	-	-	-	-	-	-	165

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LI CE8710 - AVENGER MODS Page 10 of 13 P-1 Line #15 Army

Exhibit P-3a, Indiv	ridual Modification: P	B 2016 Army				Date: February 2015	5
Appropriation / Bu 2032A / 03 / 10	udget Activity / Budge	et Sub Activity:	P-1 Line Item Nu CE8710 / AVENG			Modification Numb CE8710 / Avenger N	
Modification Item 4 of	6: Mode 5/Identification Frie	nd or Foe	·				
Manufacturer Informat	tion						
Manufacturer Name: Bo	eing			Manufacturer Location: E	Everett, Washington		
Administrative Leadtime	(in Months): 1			Production Leadtime (in	Months): 5		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates				Jan 2017	Nov 2017	Nov 2018	
Delivery Dates				May 2017	Mar 2018	Mar 2019	

#### Installation Information

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

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	0 / 0.000	- 1 -	- / 0.000	- / 0.000	- 1 -	- / 0.000	- /0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- / 0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	140 / 1.261	- 1 -	- 1 -	- 1 -	- 1 -	140 / 1.261
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	155 / 1.363	- 1 -	- 1 -	- 1 -	155 / 1.363
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	98 / 0.925	- 1 -	- 1 -	98 / 0.925
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	140 / 1.261	155 / 1.363	98 / 0.925	- 1 -	- 1 -	393 / 3.549

### Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	2020			
	PYS	Q1	Q2	Q3	Q4	TC	Tot																								
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	40	40	50	40	40	40	40	40	33	-	-	-	-	-	393
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	40	40	50	40	40	40	40	40	33	-	-	-	-	-	393

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LI CE8710 - AVENGER MODS Page 11 of 13 Army

Exhibit P-3a, Indiv	vidual Modification: PE	3 2016 Army				Date: February 201	5
Appropriation / Bu 2032A / 03 / 10	udget Activity / Budge	t Sub Activity:	P-1 Line Item Nu CE8710 / AVENG			Modification Numb	
Modification Item 5 of	6: Targeting Console		•			•	
Manufacturer Informat	tion						
Manufacturer Name: Ba	irco			Manufacturer Location: F	Rancho Cordova, Califorr	nia	
Administrative Leadtime	e (in Months): 1			Production Leadtime (in	Months): 6		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates		Mar 2015	Dec 2015				
Delivery Dates		Oct 2015	Jun 2016				

#### Installation Information

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

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M										
Prior Years	0 / 0.000	- 1 -	- / 0.000	- / 0.000	- 1 -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- / 0.000	- / 0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	- 1 -	66 / 0.006	- 1 -	66 / 0.006	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	66 / 0.006
FY 2016	0 / 0.000	- 1 -	- 1 -	99 / 0.010	- 1 -	99 / 0.010	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	99 / 0.010
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	- 1 -	165 / 0.016	- 1 -	165 / 0.016	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	165 / 0.016

#### Installation Schedule

			FY 2	014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	2020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	-	-	-	-	-	-	-	-	-	33	33	33	33	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	165
Out	-	-	-	-	-	-	-	-	-	33	33	33	33	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	165

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LI CE8710 - AVENGER MODS Army

P-1 Line #15

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Exhibit P-3a, Indiv	idual Modification: P	B 2016 Army				Date: February 2015	5
<b>Appropriation / Bu</b> 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu CE8710 / AVENG			Modification Numb CE8710 / Avenger M	
Modification Item 6 of 6	3: Environmental Control Ur	it/Prime Power Unit	•			'	
Manufacturer Informati	on						
Manufacturer Name: AW	CF Managed Item- Marvin	Land Systems		Manufacturer Location: I	nglewood, CA		
Administrative Leadtime	(in Months): 4			Production Leadtime (in	Months): 9		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates				Mar 2017	Dec 2017	Oct 2018	
Delivery Dates				Dec 2017	Sep 2018	Sep 2019	

### Installation Information

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

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	0 / 0.000	- 1 -	- / 0.000	- / 0.000	- 1 -	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- / 0.000	- / 0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	29 / 0.371	- 1 -	- 1 -	- 1 -	- 1 -	29 / 0.371
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	53 / 0.692	- 1 -	- 1 -	- 1 -	53 / 0.692
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	17 / 0.226	- 1 -	- 1 -	17 / 0.226
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	29 / 0.371	53 / 0.692	17 / 0.226	- 1 -	- 1 -	99 / 1.289

#### Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot																				
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	-	-	-	53	-	-	-	17	-	-	-	-	-	99
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	-	-	-	53	-	-	-	17	-	-	-	-	-	99

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LI CE8710 - AVENGER MODS Page 13 of 13 P-1 Line #15 Army

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C61700 / ITAS/TOW Mods

Modifications

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Co	de B Items:			Other Relate	d Program El	ements:		
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	_	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,729.699	20.000	19.676	19.576	-	19.576	0.983	-	-	-	-	1,789.934
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	1,729.699	20.000	19.676	19.576	-	19.576	0.983	-	-	-	-	1,789.934
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,729.699	20.000	19.676	19.576	-	19.576	0.983	-	-	-	-	1,789.934
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)	Ÿ			
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

#### **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) 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 in Operation Enduring Freedom (OEF).

	Secondary Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	5.902	-	5.902	0.983	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	20.000	19.676	13.160	-	13.160	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	0.514	-	0.514	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-

LI C61700 - ITAS/TOW Mods

Army

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P-1 Line #16

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C61700 / ITAS/TOW Mods

Modifications

LI C61700 - ITAS/TOW Mods

ID Code (A=Service Ready, B=1	Not Service Ready) :	Pro	gram Elements	for Code B Items	s:	C	Other Related Pro	gram Elements:		
Secondary	y Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Secondary Distribution	Total Obligation Authority	20.000	19.676	19.576	-	19.576	0.983	-	-	-

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Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C61700 / ITAS/TOW Mods

Modifications

ID Code (A=Service Ready, B=Not Service Ready) :		Progran	n Elements for Code	B Items:		Other Related Program	Elements:	
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	t Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)
C61700 / NA (NA)	P-3a		- /1,729.699	- /20.000	- / 19.676	- / 19.576	- / -	- / 19.576
Total Gross/Weapon System Cost			- / 1,729.699	- / 20.000	- / 19.676	- / 19.576	- 1 -	- / 19.576
Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)
C61700 / NA (NA)	P-3a		- / 0.983	- / -	- / -	- / -	- / -	- / 1,789.934
Total Gross/Weapon System Cost			- / 0.983	- 1 -	- 1 -	- 1 -	- 1 -	- /1,789.934

^{*}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 add due to rounding.

#### Justification:

FY2016 Base Procurement dollars in the amount of \$19.576 million supports 306 ITAS Image Enhancement modification kits as well as Government and contractor program management support, fielding, and installation of these systems.

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

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Exhibit P-3a, Individual Modification: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Modification Number / Title:
2032A / 03 / 10	C61700 / ITAS/TOW Mods	C61700 / NA

2032A / 03 / 10			C61	700 / ITAS	/TOW Mods	3			C61700	/ NA		
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,729.699	20.000	19.676	19.576	-	19.576	0.983	-	-	-	-	1,789.934
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	1,729.699	20.000	19.676	19.576	-	19.576	0.983	-	-	-	-	1,789.934
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,729.699	20.000	19.676	19.576	-	19.576	0.983	-	-	-	-	1,789.934
(The followin	g Resource Sum	mary rows are fo	or informational p	urposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)	1		<u> </u>	
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands	-	-	-	-	-	-	-	-	-	-	-	-

### **Description:**

Modification Description / Justification:

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) 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 in Operation Enduring Freedom (OEF).

FY2016 Base Procurement dollars in the amount of \$19.576 million supports 306 ITAS Image Enhancement modification kits as well as Government and contractor program management support, fielding, and installation of these systems.

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.

Seconda	ry Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	5.902	-	5.902	0.983	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	20.000	19.676	13.160	-	13.160	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-

LI C61700 - ITAS/TOW Mods

Army

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P-1 Line #16

Exhibit P-3a, Individual Modification: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Modification Number / Title:
2032A / 03 / 10	C61700 / ITAS/TOW Mods	C61700 / NA

Secondar	y Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
	Total Obligation Authority	-	-	0.514	-	0.514	-	-	-	-
Total:	Quantity	-	-	-	-	-	=	-	-	-
Secondary Distribution	Total Obligation Authority	20.000	19.676	19.576	-	19.576	0.983	-	-	-

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LI C61700 - ITAS/TOW Mods Army

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Exhibit P-3a, Individual Modification: PB 2016 Army Date: February 2015 Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: **Modification Number / Title:** 2032A / 03 / 10 C61700 / ITAS/TOW Mods C61700 / NA Models of Systems Affected: NA Modification Type: NA Related RDT&E PEs: FY 2016 FY 2016 FY 2016 То FY 2014 FY 2015 oco FY 2017 FY 2018 FY 2019 FY 2020 **Prior Years** Base Total Complete Total Qtv (Each) I **Financial Plan** Total Cost (\$ M) | Total Cost (\$ Procurement Modification Item 1 of 1: ITAS (IMPROVED TARGET ACQUISITION SYSTEM) A Kits Recurring Kit Quantity 1,552 / 1.619 - 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -1,552 / 1.619 0 / 1.361.319 - / 17.718 - / 15.394 - / 15.394 I 15.394 - 1 -Equipment 1,409.825 0 / 79.257 - 1 -- / 1.622 - /4.005 - 1 -14.005 - / 0.806 - 1 -- 1 -- 1 -- /85.690 Fieldina - 1 -Project Management 0 / 115.570 - /2.282 - /2.660 - /0.177 - 1 -10.177 - / 0.177 - 1 -- 1 -- 1 -- 1 -- / 120.866 0/3.097 - 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- /3.097 Data - /20.000 - /19.676 - /19.576 - / -- /19.576 - /0.983 - / -- / -- / -Subtotal: Recurring 1,560.862 1,621.097 Non-Recurring Training Equipment 0 / 86.712 - 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- /86.712 - 1 -- 1 -- 1 -- / -- 1 -- / -Production Line Restart 0 / 5.993 - 1 -- 1 -- 1 -- 1 -- /5.993 0 / 76.132 - 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -Initial Spares - 1 -- /76.132 - /168.837 - / -- / -- / -- / -- / -- / -- / -- / -- /168.837 - / -- / -Subtotal: Non-Recurring - /19.576 Subtotal: ITAS (IMPROVED TARGET ACQUISITION 1,552/ - /20.000 - /19.676 - / -- /19.576 - /0.983 - / -- / -- / -- / -1.552 SYSTEM) 1.729.699 1.789.934 1.552/ - /20.000 - /19.576 - /19.576 1.552 Subtotal: Procurement, All Modification Items - /19.676 - / -- /0.983 - / -- / -- / -- / -1,729.699 1,789.934 Installation 1,552 / 0.000 - 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -1,552 / -Modification Item 1 of 1: ITAS (IMPROVED TARGET ACQUISITION SYSTEM) Subtotal: Installation 1,552 / 0.000 - / -- / -- / -- / -- / -- / -- / -- / -- / -1,552/ -Total Total Cost (Procurement + Support + Installation) 1.729.699 20.000 19.676 19.576 19.576 0.983 1,789.934

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Exhibit P-3a, Indiv	idual Modification: P	B 2016 Army				Date: February 2015	j
<b>Appropriation / Bu</b> 2032A / 03 / 10	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu C61700 / ITAS/T0			Modification Number C61700 / NA	er / Title:
Modification Item 1 of	1: ITAS (IMPROVED TARGE	ET ACQUISITION SYST	ΓΕM)			·	
Manufacturer Informat	ion						
Manufacturer Name: Ra	ytheon Network Centric Syst	tems Company		Manufacturer Location: M	cKinney, TX		
Administrative Leadtime	(in Months): 4			Production Leadtime (in N	Months): 23		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates		Dec 2014	Dec 2015				
Delivery Dates		Feb 2017	Sep 2017				

## Installation Information

Method of Implementation: Organic

	•											
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	1,552 / 0.000	- / 0.000	- / 0.000	- / 0.000	- 1 -	- / 0.000	- / 0.000	- 1 -	- 1 -	- 1 -	- / 0.000	1,552 / 0.000
FY 2014	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	1,552 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1,552 / -

#### Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017	_		FY 2	2018			FY 2	019			FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot																
In	1,552	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,552
Out	1,552	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 1	1,552

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LI C61700 - ITAS/TOW Mods Page 7 of 7 Army

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C67500 / MLRS Mods

Modifications

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Cod	de B Items:			Other Relate	d Program El	ements:		
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	55.231	11.571	10.380	35.970	-	35.970	37.251	37.785	38.353	57.676	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	55.231	11.571	10.380	35.970	-	35.970	37.251	37.785	38.353	57.676	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	55.231	11.571	10.380	35.970	-	35.970	37.251	37.785	38.353	57.676	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	e corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	2,569.286	-	2,569.286	-	-	-	-	Continuing	Continuing

#### **Description:**

The Multiple Launch Rocket System (MLRS) is a full spectrum, combat proven, all weather, 24/7, tracked weapon system. This precision strike weapon system is organic/assigned to Fires Brigades supporting Brigade Combat Teams (FABs). The MLRS launcher provides critical missile precision strike, operational shaping fires, counterfire, and close support destructive and suppressive fires. The launcher is complemented by the MLRS Family of Munitions (MFOM) to include the Guided Multiple Launch Rocket System (GMLRS) and the Army Tactical Missile System (ATACMS) Family of Munitions (AFOM), capable of engaging targets up to a range of 300 kilometers.

Seconda	ary Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.287	8.380	35.970	-	35.970	37.251	37.785	38.353	39.285
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.284	2.000	-	-	-	-	-	-	18.391
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	11.571	10.380	35.970	-	35.970	37.251	37.785	38.353	57.676

LI C67500 - MLRS Mods
Army

UNCLASSIFIED
Page 1 of 9
P-1 Line #17

Exhibit P-40, Budget Line Item Justification: PB 2016 Army **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C67500 / MLRS Mods

Modifications

ID Code (A=Service Ready, B=Not Service Ready):	I	Program	Elements for Code	B Items:	Ot	Other Related Program Elements:				
Exhibits Schedule	•		Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total		
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)		
C67500 / Multiple Launch Rocket System (MLRS) Modifications (.)	P-3a		- / 55.231	- / 11.571	- / 10.380	- / 35.970	- / -	- / 35.970		
Total Gross/Weapon System Cost			- / 55.231	- / 11.571	- / 10.380	- / 35.970	- 1 -	- / 35.970		
Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total		
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)		
C67500 / Multiple Launch Rocket System (MLRS) Modifications (.)	P-3a		- / 37.251	- / 37.785	- / 38.353	- / 57.676	Continuing	Continuing		
Total Gross/Weapon System Cost			- / 37.251	- / 37.785	- / 38.353	- / 57.676	Continuing	Continuing		

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

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

#### Justification:

Army

FY16 Base procurement dollars in the amount of \$35.97 million facilitizes the Improved Armored Cab (IAC) and the Fire Control System-Update (FCS-U) production lines, and Obsolescence Mitigation/ Engineering Change Proposal integration to include measures for other hardware and software required in support of launcher upgrades.

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

**UNCLASSIFIED** LI C67500 - MLRS Mods 131 Page 2 of 9 P-1 Line #17

Exhibit P-3a, Individual Modification: PB 2016 Army Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Modification Number / Title:

2032A / 03 / 10 C67500 / MLRS Mods C67500 / Multiple Launch Rocket System

(MLRS) Modifications

	Prior			FY 2016	FY 2016	FY 2016					То	
Resource Summary	Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	55.231	11.571	10.380	35.970	-	35.970	37.251	37.785	38.353	57.676	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	55.231	11.571	10.380	35.970	-	35.970	37.251	37.785	38.353	57.676	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	55.231	11.571	10.380	35.970	-	35.970	37.251	37.785	38.353	57.676	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	e corresponding	p budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	2,569.286	-	2,569.286	-	-	-	-	Continuing	Continuing

## **Description:**

Modifications of the MLRS System

Secondar	ry Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.287	8.380	35.970	-	35.970	37.251	37.785	38.353	39.285
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.284	2.000	-	-	-	-	-	-	18.391
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	11.571	10.380	35.970	=	35.970	37.251	37.785	38.353	57.676

**UNCLASSIFIED** LI C67500 - MLRS Mods 132 Page 3 of 9 P-1 Line #17 Army

Exhibit P-3a, Individual Modification: PB 2016 Army Date: February 2015 Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: **Modification Number / Title:** 2032A / 03 / 10 C67500 / MLRS Mods C67500 / Multiple Launch Rocket System (MLRS) Modifications Models of Systems Affected: M270A1 Modification Type: . Related RDT&E PEs: FY 2016 FY 2016 FY 2016 To **Prior Years** FY 2014 FY 2015 Base oco Total FY 2017 FY 2018 FY 2019 FY 2020 Complete Total Qtv (Each) I Qty (Each) I Qty (Each) I Qty (Each) I Qtv (Each) I Qtv (Each) I Qtv (Each) I Qty (Each) I **Financial Plan** Total Cost (\$ M) **Procurement** Modification Item 1 of 4: Obsolescence Mitigations/ ECP Reliability Into A Kits Recurring 0 / 32.381 / 3.711 - / 0.756 - / 1.058 Equipment - I 1.400 - 1 -10.756 - I 1.271 - / 1.231 - / 1.062 Continuing Continuing Subtotal: Recurring - /32.381 - /3.711 - /1.400 - /0.756 - / -/ 0.756 - /1.271 - /1.231 - /1.058 - /1.062 Continuing Continuing Subtotal: Obsolescence Mitigations/ECP Reliability Intg 0/32.381 / 3.711 /1.400 / 0.756 / 0.756 - /1.271 /1.231 - /1.058 /1.062 Continuina Continuina Modification Item 2 of 4: Enhanced Command and Control (C2) A Kits Recurring Equipment 162 / 19.394 - 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -- 1 -162 / 19.394 Subtotal: Recurring - /19.394 - / -- / -- / -- / -- / -- / -- / -- / -- / -- / -- /19.394 162 / 19.394 - / -- / -- / -- / -- / -- / -- / -- / -- / -- / -162 / 19.394 Subtotal: Enhanced Command and Control (C2) Modification Item 3 of 4: Improved Armored Cab (IAC) A Kits Recurring - 1 -16 / 7.716 17 / 8.542 15 / 21.904 15 / 21.904 13 / 17.490 11 / 15.887 10 / 15.053 24 / 32.715 Equipment - 1 -Continuing Continuing Subtotal: Recurring - / -- /7.716 - /8.542 - /21.904 - / -- /21.904 - /17.490 - /15.887 - /15.053 - /32.715 Continuing Continuing Subtotal: Improved Armored Cab (IAC) - / -16/7.716 17 / 8.542 15/21.904 - / -15/21.904 13 / 17.490 11 / 15.887 10 / 15.053 24 / 32.715 Continuing Continuing Modification Item 4 of 4: Fire Control System (FCS) Upgrade A Kits Recurring - 1 -- 1 -14 / 12.772 - 1 -14 / 12.772 12 / 14.066 12 / 16.761 12 / 18.803 22 / 20.669 Continuina Equipment Continuina / -- / -- / -/ 12.772 - / -- /12.772 - /14.066 - /16.761 Subtotal: Recurring - /18.803 - / 20.669 Continuing Continuing 22 / 20.669 - / -- / -14 / 12.772 - / -14 / 12.772 12 / 14.066 12 / 16.761 12 / 18.803 Subtotal: Fire Control System (FCS) Upgrade - / -Continuing Continuing Subtotal: Procurement. All Modification Items 162 / 51.775 16 / 11.427 17/9.942 29 / 35.432 - / -29 / 35.432 25 / 32.827 23 / 33.879 22 / 34.914 46 / 54.446 Continuina Continuing Installation Modification Item 2 of 4: Enhanced Command and 216 / 3.456 9 / 0.144 - 1 -- 1 -- 1 -- 1 -225 / 3.600 Control (C2)

LI C67500 - MLRS Mods
Army

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P-1 Line #17

Exhibit P-3a, Individual Modification: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 03 / 10	P-1 Line Item Number / Title: C67500 / MLRS Mods	Modification Number / Title: C67500 / Multiple Launch Rocket System (MLRS) Modifications

Models of Systems Affected: M270A1		Modifi	cation Typ	e: .	Related RDT&E PEs:										
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total			
Financial Plan	Qty (Each) I Total Cost (\$ M)														
Modification Item 3 of 4: Improved Armored Cab (IAC)	0 / 0.000	- 1 -	16 / 0.438	17 / 0.538	- 1 -	17 / 0.538	15 / 3.927	13 / 3.472	11 / 2.996	10 / 2.778	- 1 -	82 / 14.149			
Modification Item 4 of 4: Fire Control System (FCS) Upgrade	0 / 0.000	- / -	- / -	- / -	- 1 -	- 1 -	14 / 0.497	12 / 0.434	12 / 0.443	12 / 0.452	- 1 -	50 / 1.826			
Subtotal: Installation	216 / 3.456	9 / 0.144	16 / 0.438	17 / 0.538	- / -	17 / 0.538	29 / 4.424	25 / 3.906	23 / 3.439	22 / 3.230	- / -	357 / 19.575			
Total															
Total Cost (Procurement + Support + Installation)	55.231	11.571	10.380	35.970	-	35.970	37.251	37.785	38.353	57.676	Continuing	Continuing			

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			0.110.				
Exhibit P-3a, Indivi	idual Modification:	PB 2016 Army				Date: February 2015	5
<b>Appropriation / Bu</b> 2032A / 03 / 10	dget Activity / Budo	get Sub Activity:	P-1 Line Item Nu C67500 / MLRS I			Modification Number C67500 / Multiple La (MLRS) Modification	unch Rocket System
Modification Item 1 of 4	: Obsolescence Mitigation	ns/ECP Reliability Intg	l .			l ·	
Manufacturer Informati							
Manufacturer Name: TBI	)			Manufacturer Location: TI	BD		
Administrative Leadtime	(in Months):			Production Leadtime (in N	Months):		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementat					Installation	Quantity: 0	
•	, ,					•	

LI C67500 - MLRS Mods Army UNCLASSIFIED
Page 6 of 9

Exhibit P-3a, Indivi	dual Modification: Pl	3 2016 Army				Date: February 201	5
Appropriation / Bu 2032A / 03 / 10	dget Activity / Budge	t Sub Activity:	P-1 Line Item Nu C67500 / MLRS N			Modification Numb C67500 / Multiple La (MLRS) Modification	aunch Rocket System
Modification Item 2 of 4	: Enhanced Command and	Control (C2)					
Manufacturer Information	on						
Manufacturer Name: TBI	)			Manufacturer Location:	TBD		
Administrative Leadtime	(in Months): 3			Production Leadtime (in	Months): 9		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates							
Delivery Dates							

### Installation Information

Method of Implementation: TBD

				FY 2016	FY 2016	FY 2016					То	
	Prior Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	162 / 2.592	- / 0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	162 / 2.592
FY 2014	54 / 0.864	9 / 0.144	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	63 / 1.008
FY 2015	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	216 / 3.456	9 / 0.144	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	225 / 3.600

#### Installation Schedule

1																															
			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot																				
In	216	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	225
Out	216	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	225

LI C67500 - MLRS Mods
Army

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Page 7 of 9
P-1 Line #17

Evh	ibit P-	20 li	adivi	dual N	/lodif	icatio	n. Di	2 201	6 Arm	.,													Г	)ato:	: Feb	ruarv	201	5			
	ropria										•	P ₋ 1	l ine l	tem l	Numb	er / T	Citle:											ber / Ti	tle:		
	2A / 03			agut r	101111	.y / D	uugu	, C Gui	Aour	, icy	•		_		S Mod	-	itio.							675		Multip	ole La	aunch		et Sys	ster
Modi	ification	ı Item	3 of 4	: Impro	ved Arr	nored	Cab (IA	AC)																							
Manı	ufacture	er Info	rmatio	on																											
Manı	ıfacturer	r Nam	e: TBC	)												Manu	facture	r Locatio	n: TBI	D											
Admi	nistrativ	e Lead	dtime (	in Mon	ths): 3											Produ	iction L	eadtime	(in Mo	onths):	9										
	Dat	tes			FY 2	2014			FY 2	015			FY 2	2016			FY 2	2017	· I		FY 2	018			FY 2	2019			FY 2	2020	
Conti	ract Date	es											Jan	2016			Jan	2017			Jan 2	018			Jan 2	2019			Jan :	2020	
	ery Date													2016			Sep				Sep 2				Sep 2			_	Sep		
	ory Dute												ООР	2010			СОР	2011			00p 2	.010			COP 2				ООР		
Insta	llation l	Inform	nation																												
Meth	od of In	nplem	entati	on: TB	D																										
						Pri	ior Yea	ars	FY 201	4	FY 20	15	FY 2 Bas		FY 2	2016 CO	1	2016 otal	FY	2017	F	<b>/ 2018</b>	FY	2019	•	FY 20	20	To Comp		Tot	tal
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FY 201							0/0		- 1	$\rightarrow$		0.438		1 -		1 -	_	- 1 -	_	- 1 -		- 1 -		- 1			1 -		1 -		6/0.4
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FY 201							0/0		- 1	$\rightarrow$		1 -		1 -		1 -	+	- / -		- / -		- / -	_	- I			2.778		1 -		0/2.7
FY 202							0/0		- 1	-		1 -	-	1 -		1 -		- / -		- 1 -		- 1 -		- 1			1 -		1 -		1
To Cor	nplete						0/0	.000	- 1	-	-	1 -	-	1 -	-	1 -		- 1 -		- 1 -		- / -		- 1	-	-	1 -	-	1 -	-	1
Total							0/0	.000	- 1	-	16 <i>l</i>	0.438	17	/ 0.538	-	1 -		17 / 0.538		15 / 3.927	7	13 / 3.4	72	11 / 2.	996	10 <i>l</i>	2.778		1 -	82	<i>l</i> 14.′
Inata	llation	Sched	lule												_												_				
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IIISta	PYS	Q1		1									1 4-	I	1	1	15	_	_	_	13	-	_	_	11	_	_	1 '	10	74	1:
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Exh	ibit P-	-3a, Ir	ndivi	dual	Modif	icatio	on: P	B 20	16 Arn	ny														Date	: Feb	ruary	201	5			
	ropria 2A / 03			dget /	Activi	ty / B	Budge	et Su	b Acti	ivity	:			Item I MLRS			itle:							C675	ificat 500 / RS) M	Multip	ole La	auncl	Fitle: n Rock	cet Sy	/ste
Mod	fication	n Item	4 of 4	: Fire C	ontrol	System	n (FCS	) Upg	rade															1.							
Man	ıfacture	er Info	rmati	on		•	·																								
Manı	ıfacture	r Name	e: TBD	)												Manut	facture	r Locatio	on: TE	3D											_
Adm	nistrativ	e Lead	dtime	in Mon	ths): 3											Produ	ction L	.eadtime	e (in M	/onths):	6										
	Dat					2014			FY	2015			FY	2016				2017	•	,		2018			FY 2	2019			FY	2020	
Cont	act Dat													2016				2017				2018			Apr			+		2020	
	ery Date													2016				2017				2018			Dec			+		2020	
Denv	cry Dak													2010				2017			DCC	2010				2010				2020	
Insta	llation	Inform	nation																												
Meth	od of Ir	mplem	entati	on: TB	D																										_
						Pr	ior Yea	ars	FY 20	14	FY 20	015	FY 2 Ba			2016 CO		2016 otal	FY	/ 2017	F	Y 2018	3	FY 201	9	FY 202	20	T	o plete	To	otal
	li	nstalla	ation (	Cost			ty (Each		Qty (Eac		Qty (Ea		Qty (E			Each) I		(Each) I Cost (\$ M)		(Each) I Cost (\$ M		ty (Each) al Cost (\$		Qty (Each		Qty (Eac			ach) I	Qty (I	Each)
Prior Y	ears						0/0	0.000	- 1	0.000	-	1 0.000	-	1 0.000	-	1 -	-	/ 0.000		- /0.00	0	- /0.0	000	- 10	0.000	- 1	0.000	-	10.000	-	10.
FY 20	4						0/0	0.000		<i>l</i> -	-	1 -	-	1 -	-	1 -		- 1 -		- 1 -		- 1	-	- 1	-	-	1 -	-	1 -		- 1
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FY 20								0.000				1 -		1 -		1 -	-	- / -		- / -		12 / 0.4		- 1		-			1 -		12 / 0.4
FY 20								0.000				1 -		1 -		1 -		- 1 -		- 1 -	-	- 1		12/0		-			1 - 1 -		12 / 0.4
FY 20								0.000				1 -		1 -		1 -	-	- 1 -		- 1 -	-	- 1		- 1		127	0.452		1 -		12 / 0.4
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Insta	llation	Sched	lule																												
			FY	2014	_		FY	2015			FY	2016			FY 2	2017			FY 2	2018			FY	2019			FY	2020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	То
			1	1	1	İ						l _	_	3	3	4	4	3	3	3	3	3	3	3	3	3	3		3 3	80	) 1:
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Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

C67501 / HIMARS Modifications

Modifications

ID Code (A=Service Ready, B=Not Service Ready):			Program Ele	ments for Cod	de B Items:			Other Relate 0210602A	d Program El	<b>ements:</b> 0210	0600A, 0603778	Α,
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	208.397	6.105	6.008	3.148	-	3.148	2.457	12.353	15.290	17.766	204.749	476.273
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	208.397	6.105	6.008	3.148	-	3.148	2.457	12.353	15.290	17.766	204.749	476.273
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	208.397	6.105	6.008	3.148	-	3.148	2.457	12.353	15.290	17.766	204.749	476.273
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne correspondin	g budget requests	s are documente	ed elsewhere.)		(		
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	98.375	-	98.375	-	-	-	-	-	361.635

### **Description:**

The M142 High Mobility Artillery Rocket System (HIMARS) is a C-130 Transportable launcher mounted on a Family of Medium Tactical Vehicles (FMTV) chassis. The HIMARS is capable of firing either six Multiple Rocket Launcher System (MLRS) Family of Munitions (MFOM) rockets or one Army Tactical Missile System (ATACMS) Family of Munitions (AFOM) missile to a range of 300 kilometers. Modification kits will be procured for the HIMARS Launcher and associated training and ground support equipment. These modifications are vital to the Forces and will provide an increase in crew protection via an Increased Crew Protection (ICP) cab, Enhance Command and Control (C2), decrease Operations and Support costs, reduce logistical impacts, resolve safety issues, and mitigate obsolescence.

Seconda	ary Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.614	2.485	1.008	-	1.008	0.661	5.643	7.111	9.684
ANG	Quantity	-	-	-	-	-	-	-	-	=
	Total Obligation Authority	2.491	3.523	2.140	-	2.140	1.796	6.710	8.179	8.082
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	<b>Total Obligation Authority</b>	6.105	6.008	3.148	-	3.148	2.457	12.353	15.290	17.766

**UNCLASSIFIED** 

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

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

Modifications

C67501 / HIMARS Modifications

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

Program Elements for Code B Items:

Other Related Program Elements: 0210600A, 0603778A, 0210602A

					UZ .	0002,1		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)			
C67501 / HIMARS Modifications (Operational, Reliability, Safety, Crew Survivability)	P-3a		- /208.397	- /6.105	- /6.008	- / 3.148	- / -	- / 3.148
Total Gross/Weapon System Cost			- / 208.397	- / 6.105	- / 6.008	- / 3.148	- 1 -	- / 3.148
Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)
C67501 / HIMARS Modifications (Operational, Reliability, Safety, Crew Survivability)	P-3a		- /2.457	- / 12.353	- / 15.290	- /17.766	- /204.749	- /476.273
Total Gross/Weapon System Cost			- / 2.457	- / 12.353	- / 15,290	- / 17.766	- / 204.749	- / 476,273

^{*}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 add due to rounding.

#### Justification:

FY 2016 Base procurement dollars in the amount of \$3.148 million procure and install Enhanced Command and Control (C2), Obsolescence Mitigation/Engineering Change Proposal Integration to include measures for other hardware and software required in support of launcher upgrades such as software modification efforts to address obsolescence along with transparent armor protection and suspension improvements.

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

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Exhibit P-3a, Individual Modification: PB 2016 ArmyDate: February 2015Appropriation / Budget Activity / Budget Sub Activity:P-1 Line Item Number / Title:<br/>C67501 / HIMARS ModificationsModification Number / Title:<br/>C67501 / HIMARS Modifications

2032A / 03 / 10			C67	7501 / HIMA	ARS Modific	ations			C67501	/ HIMARS	Modifications	S
	Prior			FY 2016	FY 2016	FY 2016					То	
Resource Summary	Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	208.397	6.105	6.008	3.148	-	3.148	2.457	12.353	15.290	17.766	204.749	476.273
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	208.397	6.105	6.008	3.148	-	3.148	2.457	12.353	15.290	17.766	204.749	476.273
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	208.397	6.105	6.008	3.148	-	3.148	2.457	12.353	15.290	17.766	204.749	476.273
(The following	Resource Sum	mary rows are fo	r informational p	ourposes only. Ti	ne corresponding	g budget request	s are documente	ed elsewhere.)	•			
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	98.375	-	98.375	-	-	-	-	-	361.635

## **Description:**

The M142 HIMARS is a C-130 transportable launcher mounted on a Family of Medium Tactical Vehicles Chassis. The HIMARS is capable of firing either six MLRS Family of Munitions rockets or one ATACMS Family of Munitions missile to a range of 300 kilometers.

Secon	dary Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.614	2.485	1.008	-	1.008	0.661	5.643	7.111	9.684
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.491	3.523	2.140	-	2.140	1.796	6.710	8.179	8.082
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	6.105	6.008	3.148	-	3.148	2.457	12.353	15.290	17.766

Exhibit P-3a, Individual Modification: P	B 2016 Arm	ıy							Date: Feb	ruary 2015	;	
Appropriation / Budget Activity / Budget 2032A / 03 / 10	et Sub Acti	vity:		tem Numb HIMARS M		s				ion Numbe HIMARS M	er / Title: lodifications	s
<b>Models of Systems Affected:</b> M142 Hig Artillery Rocket System	h Mobility		ication Typ Survivability		onal, Relia	bility, Safet	y, Re	lated RDT	&E PEs:			
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M										
Procurement	-											
Modification Item 1 of 2: Enhanced Command and Control (C2)												
A Kits												
Recurring												
Equipment	375 / 37.359	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	375 / 37.35
Subtotal: Recurring	- /37.359	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- /37.35
Subtotal: Enhanced Command and Control (C2)	375 / 37.359	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	375 / 37.35
<b>Modification Item 2 of 2:</b> Reliablity Obsolescence Mitigation (MOD 4)												
A Kits												
Recurring												
Equipment	375 / 98.247	- /5.432	- /5.322	- /2.475	- / -	- /2.475	- /2.457	- / 12.353	- / 15.290	- / 17.766	- / 204.749	375 / 364.09
Subtotal: Recurring	- /98.247	- /5.432	- /5.322	- /2.475	- / -	- /2.475	- /2.457	- /12.353	- /15.290	- /17.766	- / 204.749	- /364.09
Subtotal: Reliablity Obsolescence Mitigation (MOD 4)	375 / 98.247	- /5.432	- /5.322	- /2.475	- / -	- /2.475	- /2.457	- /12.353	- /15.290	- /17.766	- / 204.749	375 / 364.09
Subtotal: Procurement, All Modification Items	750 / 135.606	- /5.432	- /5.322	- /2.475	- / -	- /2.475	- /2.457	- /12.353	- /15.290	- /17.766	- /204.749	750 / 401.450
Installation			·									
Modification Item 1 of 2: Enhanced Command and Control (C2)	118 / 0.508	127 / 0.546	130 / 0.559	130 / 0.559	- 1 -	130 / 0.559	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	505 / 2.172
Modification Item 2 of 2: Reliablity Obsolescence Mitigation (MOD 4)	48 / 0.048	127 <i>l</i> 0.127	127 / 0.127	127 <i>l</i> 0.114	- 1 -	127 / 0.114	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	429 / 0.41
Subtotal: Installation	166 / 0.556	254 / 0.673	257 / 0.686	257 / 0.673	- / -	257 / 0.673	- / -	- / -	- / -	- / -	- / -	934 / 2.58
Total												
Total Cost (Procurement + Support + Installation)	208.397	6.105	6.008	3.148	_	3.148	2.457	12.353	15.290	17.766	204.749	476.27

LI C67501 - HIMARS Modifications Army

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Exhibit P-3a, Indiv	vidual Modification: P	3 2016 Army				Date: February 201	5
<b>Appropriation / B</b> 2032A / 03 / 10	udget Activity / Budge	t Sub Activity:	P-1 Line Item Nu C67501 / HIMARS			Modification Numb	
Modification Item 1 of	2: Enhanced Command and	Control (C2)	·			•	
Manufacturer Informa	tion						
Manufacturer Name: Go	overnment Enhancement Tea	m		Manufacturer Location:	TBD		
Administrative Leadtime	e (in Months): 3			Production Leadtime (in	Months): 9		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates							
Delivery Dates							

### Installation Information

Method of Implementation: Organic

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	118 / 0.508	- / 0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	118 / 0.508
FY 2014	0 / 0.000	127 / 0.546	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	127 / 0.546
FY 2015	0 / 0.000	- 1 -	130 / 0.559	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	130 / 0.559
FY 2016	0 / 0.000	- 1 -	- 1 -	130 / 0.559	- 1 -	130 / 0.559	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	130 / 0.559
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	118 / 0.508	127 / 0.546	130 / 0.559	130 / 0.559	- / -	130 / 0.559	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	505 / 2.172

#### Installation Schedule

			FY 2	014		-	FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	375	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	375
Out	118	19	38	38	32	19	38	38	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	375

LI C67501 - HIMARS Modifications
Army

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Exhibit P-3a, Indiv	vidual Modification: Pl	B 2016 Army				Date: February 2015	5
<b>Appropriation / B</b> 2032A / 03 / 10	udget Activity / Budge	et Sub Activity:	P-1 Line Item Nu C67501 / HIMAR			Modification Numb C67501 / HIMARS N	
Modification Item 2 of	2: Reliablity Obsolescence M	litigation (MOD 4)					
Manufacturer Informa	tion						
Manufacturer Name: Go	overnment Obsolence Team			Manufacturer Location: T	BD		
Administrative Leadtime	e (in Months): 3			Production Leadtime (in	Months): 9		
Dates	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Contract Dates							
Delivery Dates							

#### Installation Information

Method of Implementation: Organic

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	48 / 0.048	- /0.000	- / 0.000	- / 0.000	- 1 -	- /0.000	- /0.000	- / 0.000	- / 0.000	- / 0.000	- /0.000	48 / 0.048
FY 2014	0 / 0.000	127 / 0.127	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	127 / 0.127
FY 2015	0 / 0.000	- 1 -	127 / 0.127	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	127 / 0.127
FY 2016	0 / 0.000	- 1 -	- 1 -	127 / 0.114	- 1 -	127 / 0.114	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	127 / 0.114
FY 2017	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	0 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	48 / 0.048	127 / 0.127	127 / 0.127	127 / 0.114	- 1 -	127 / 0.114	- 1 -	- 1 -	- 1 -	- 1 -	- / -	429 / 0.416

### Installation Schedule

			FY 2	2014			FY 2	2015			FY 2	2016			FY 2	2017			FY	2018			FY 2	2019			FY 2	2020			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	тс	Tot												
In	375	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	375
Out	48	19	38	38	32	19	38	38	32	38	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	375

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Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 04: Spares and Repair Parts / BSA 10:

CA0250 / Spares And Repair Parts

Spares And Repair Parts

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Cod	de B Items:			Other Relate	d Program El	ements:		
	Prior			FY 2016	FY 2016	FY 2016					То	
Resource Summary	Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total
Procurement Quantity (Units in Each)	-	-	5	5	-	5	5	5	5	-	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	304.312	10.474	36.930	33.778	-	33.778	32.888	12.191	11.899	6.057	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	304.312	10.474	36.930	33.778	-	33.778	32.888	12.191	11.899	6.057	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	304.312	10.474	36.930	33.778	-	33.778	32.888	12.191	11.899	6.057	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	e corresponding	g budget request:	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	7,386.000	6,755.600	-	6,755.600	6,577.600	2,438.200	2,379.800	-	Continuing	Continuing

## **Description:**

Provides for the procurement of spares to support initial fielding of new or modified end items.

Seconda	ary Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	4	4	-	4	4	4	4	-
	Total Obligation Authority	10.316	36.704	33.552	-	33.552	32.662	11.965	11.673	6.057
ANG	Quantity	-	1	1	-	1	1	1	1	-
	Total Obligation Authority	0.158	0.226	0.226	-	0.226	0.226	0.226	0.226	-
Total:	Quantity	-	5	5	-	5	5	5	5	-
Secondary Distribution	Total Obligation Authority	10.474	36.930	33.778	-	33.778	32.888	12.191	11.899	6.057

Exhibit P-40, Budget Line Item Justification: PB 2016 Army

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 04: Spares and Repair Parts / BSA 10:

CA0250 / Spares And Repair Parts

Spares And Repair Parts

ID Code (A=Service Ready, B=Not Service Ready) :	Pr	rogram	Elements for Code	B Items:	Oth	er Related Program I	Elements:	
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)
CA0265 / MLRS MODIFICATION INITIAL SPARES	P-40a		- / 24.835	- / 1.011	5 / 1.075	5 / 1.058	- / -	5 / 1.058
CA0267 / PATRIOT MODIFICATION INITIAL SPARES	P-40a		- / 198.215	- / 9.463	- / 35.855	- / 32.720	- / -	- / 32.720
Total Gross/Weapon System Cost			- / 304.312	- / 10.474	5 / 36.930	5 / 33.778	- / -	5 / 33.778

*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 add due to rounding.

#### Justification:

FY2016 base procurement dollars in the amount of \$33.778 million support the acquisition of MLRS Modification and Patriot Modification Initial Spares. The funds in this account procure depot level repairable (DLR) secondary items from the Supply Management, Army, activity of the Army Working Capital Fund and commercial life cycle support vendors. To provide initial support, funds are normally 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-40a, Budget Item Justification For Aggregated Items: PB 2016 Army

Appropriation / Budget Activity / Budget Sub Activity:
2032A / 04 / 10

Date: February 2015

Aggregated Items Title:
CA0250 / Spares And Repair Parts

Various

				Prior Years			FY 2014			FY 2015		F	Y 2016 Base		F	Y 2016 OCO		F	Y 2016 Total	ı
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	Qty (Each)	Total Cost (\$ M)															
MLRS MODIFICATION IN	ITIAL	SPARES	3																	
CA0265 / MLRS MODIFICATION INITIAL SPARES			-	-	24.835	-	-	1.011	215.000	5	1.075	211.600	5	1.058	-	-	-	211.600	5	1.05
Secondary Distribution																				
Army				-	-		-	0.853		4	0.849		4	0.832		-	-		4	0.83
ANG				-	-		-	0.158		1	0.226		1	0.226		-	-		1	0.22
CA0267 / PATRIOT MODIFICATION INITIAL SPARES			-	-	198.215	-	-	9.463	-	-	35.855	-	-	32.720	-	-	-	-	-	32.72
Secondary Distribution	,		•	•		`				*		,	•			· ·				
Army				-	-		-	9.463		-	35.855		-	32.720		-	-		-	32.72
Subtotal: MLRS MODIFICATION INITIAL SPARES			-	-	223.050	-	-	10.474	-	-	36.930	-	-	33.778	-	-	-	_	-	33.77
Total			-	-	223.050	_	-	10.474	_	_	36.930	_	_	33.778	_	_	-	_	_	33.77

Exhibit P-40, Budget Line Item Justification: PB 2016 Army Date: February 2015

## Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA | C93000 / Air Defense Targets

10: Support Equipment & Facilities

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Co	de B Items:			Other Relate	d Program El	ements:		
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	423.219	3.530	3.657	3.717	-	3.717	3.841	3.975	4.111	4.234	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	423.219	3.530	3.657	3.717	-	3.717	3.841	3.975	4.111	4.234	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	423.219	3.530	3.657	3.717	-	3.717	3.841	3.975	4.111	4.234	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	ourposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

#### **Description:**

Air Defense Artillery (ADA) Targets program provides target hardware and associated scoring, payload, and ground support equipment to enable Air Defense Artillery Soldiers and units to conduct required training. This training consists of Department of the Army Pamphlet (DA PAM) 350-38 (Standards in Training Commission) required gunnery tables and aerial target tracking, training, and scoring. Target systems are also available to support collective training exercises and Force Development Testing and Experimentation (FDT&E) investigations of engagement techniques for small unmanned aircraft systems.

Secondar	ry Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.530	3.657	3.717	-	3.717	3.841	3.975	4.111	4.234
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	3.530	3.657	3.717	-	3.717	3.841	3.975	4.111	4.234

#### Justification:

FY 2016 Base procurement dollars in the amount of \$3.717 million support 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)) 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.

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Exhibit P-40, Budget Line Item Justificatio	n: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget S 2032A: Missile Procurement, Army / BA 05: \$ 10: Support Equipment & Facilities		P-1 Line Item Nu C93000 / Air Defe	
D Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B It	ems:	Other Related Program Elements:
In accordance with Section 1815 of the FY 2008 Nation defense missions, domestic emergency responses, and	al Defense Authorization Act (P.L. 110-181), this i I providing military support to civil authorities.	tem is necessary for us	se by the active and reserve components of the Armed Forces for homeland

LI C93000 - Air Defense Targets Army

Date: February 2015 Exhibit P-40, Budget Line Item Justification: PB 2016 Army

# Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA | CL2000 / Items Less Than \$5.0m (Missiles)

10: Support Equipment & Facilities

ID Code (A=Service Ready, B=Not Service Ready) :			Program Eler	ments for Cod	de B Items:			Other Relate	d Program El	ements:		
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	48.010	1.748	1.522	1.544	-	1.544	1.568	1.596	1.625	1.663	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	48.010	1.748	1.522	1.544	-	1.544	1.568	1.596	1.625	1.663	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	48.010	1.748	1.522	1.544	-	1.544	1.568	1.596	1.625	1.663	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	g budget requests	are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

#### **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.

Seconda	ry Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.748	1.522	1.544	-	1.544	1.568	1.596	1.625	1.663
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	1.748	1.522	1.544	-	1.544	1.568	1.596	1.625	1.663

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Exhibit P-40, Budget Line Item Justification: PB 2016 Army **Date:** February 2015

### Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA CL2000 / Items Less Than \$5.0m (Missiles)

10: Support Equipment & Facilities

ID Code (A=Service Ready, B=Not Service Ready):	P	rogram	Elements for Code	B Items:	Other Related Program Elements:				
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	
CL2000 / Items Less Than \$5.0m (Missiles)	P-5		- / 48.010	- / 1.748	- / 1.522	- / 1.544	- / -	- / 1.544	
Total Gross/Weapon System Cost			- / 48.010	- / 1.748	- / 1.522	- / 1.544	- 1 -	- / 1.544	

*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 add due to rounding.

#### Justification:

FY16 Base procurement dollars in the amount of \$1.544 million support the acquisition of tools and shop sets that support Patriot, Tube-launched, Optically-tracked, Wire-quided (TOW 2A) missile, TOW/ Improved Target Acquisition System (TOW 2B Aero/ITAS) missile, Multiple Launch Rocket System (MLRS), High Mobility Artillery Rocket System (HIMARS), Javelin, and Avenger. The U.S. Army grew Brigade Combat Teams (BCTs) from FY07-FY10 and Program Managers (PMs) placed more tool kits into use. This request funds the increase in wholesale stock.

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

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Exhibit P-5, Cost Analysis: PB 2016 Army			Dat	Date: February 2015			
Appropriation / Budget Activity / Budget Sub Activity: 2032A / 05 / 10		m Number / Title: ms Less Than \$5.0		CL2	n Number / Title [D 2000 / Items Less T ssiles)		
ID Code (A=Service Ready, B=Not Service Ready) :		MC					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	
Procurement Quantity (Units in Each)	-	-	-	-	-	-	
Gross/Weapon System Cost (\$ in Millions)	48.010	1.748	1.522	1.544	-	1.544	
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	
Net Procurement (P1) (\$ in Millions)	48.010	1.748	1.522	1.544	-	1.544	
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	
Total Obligation Authority (\$ in Millions)	48.010	1.748	1.522	1.544	-	1.544	
(The following Resource Summary rows are for information	al purposes only. The corre	esponding budget requests	are documented elsewher	e.)			
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 add, due to rounding.

	P	rior Years	5		FY 2014			FY 2015		FY	2016 Ba	se	FY 2016 OCO			FY 2016 Total		
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)									
Flyaway Cost						,		,					,		,			
Recurring Cost																		
Shop Sets / Tools	-	-	48.010	-	-	1.748	-	-	1.522	-	-	1.544	-	-	-	-	-	1.54
Subtotal: Recurring Cost	-	-	48.010	-	-	1.748	-	-	1.522	-	-	1.544	-	-	-	-	-	1.54
Subtotal: Flyaway Cost	-	-	48.010	-	-	1.748	-	-	1.522	-	-	1.544	-	-	-	-	-	1.54
Gross/Weapon System Cost	-	-	48.010	-	-	1.748	-	-	1.522	-	-	1.544	-	-	-	-	-	1.54

Secondar	y Distribution	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Army	Quantity	-	-		-	-
	Total Obligation Authority	1.748	1.522	1.544	-	1.544
Total:	Quantity	-	=	=	-	-
Secondary Distribution	Total Obligation Authority	1.748	1.522	1.544	-	1.544

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Exhibit P-40, Budget Line Item Justification: PB 2016 Army		Date: February 2015
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	
2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA	CA0100 / Production Base Support	
10: Support Equipment & Facilities		

ID Code (A=Service Ready, B=Not Service Ready) :			Program Ele	ments for Cod	de B Items:			Other Relate	d Program El	ements:		
	Prior			FY 2016	FY 2016	FY 2016					То	
Resource Summary	Years	FY 2014	FY 2015	Base	oco	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	354.782	4.677	4.710	4.704	-	4.704	4.779	5.055	5.159	5.273	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	354.782	4.677	4.710	4.704	-	4.704	4.779	5.055	5.159	5.273	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	354.782	4.677	4.710	4.704	-	4.704	4.779	5.055	5.159	5.273	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

# **Description:**

This program provides Production S	N	Dealessant (DCD) of C		حميما المصاحب مناطقها والمحسما المناط المحاجرونا		
I his program provides Production 5	Support and Equipment	Replacement (PSR) of G	iovernment-owned equipmen	it used in broduction and bro	ialiction testina of missile systems	or missile components
This program provides i reduction s	sapport and Equipmont	replacement (i or t) or o	overninent evinea equipinen	it acca iii prodaction and pro	duction tooting or micono by ctorne	or importonto

Exhibit P-40, Budget Line Item Justification: PB 2016 Army **Date:** February 2015

## Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2032A: Missile Procurement, Army / BA 05: Support Equipment and Facilities / BSA CA0100 / Production Base Support

10: Support Equipment & Facilities

ID Code (A=Service Ready, B=Not Service Ready) :	P	rogram	Elements for Code	B Items:	Oth	ner Related Program E	lements:	
Project Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Project	Exhibits	ID CD	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)
Production Support			-	4.677	4.710	4.704	-	4.704
Iowa AAP; Radford AAP			-	2.626	3.008	2.978	-	2.978
PIF for Other (RN08 - Production Base)	P25		-	2.626	3.008	2.978	-	2.978
Redstone Tech Test Center; White Sands Test Center			-	2.051	1.702	1.726	-	1.726
PIF FOR OTHER (RL07 - Test & Evaluation Instrumentation)	P25		-	2.051	1.702	1.726	-	1.726
Total Gross/Weapon System Cost			-	4.677	4.710	4.704	-	4.704

*For the P-17 and P-25, the Project column displays a three-level indentation: Project Category (e.g., Environmental), followed by the Facility, followed by the Project Name. Exhibits with no Project Category are included under the "Uncategorized" category. For the P-26, the Project column displays a two-level indentation: Project Type (e.g., Inactive Plants, Inactive Lines at Contractor Plants and Inactive Lines at Active Plants), followed by the Facility. Note also that although all P-17, P-25 and P-26 projects are shown in the project schedule, not all projects will have a corresponding exhibit. A P-17 or P-25 exhibit is only included if data beyond the Project Number, Project Title and Cost are included (for example: for the P-17, Description, Manufacturer, etc.; for the P-25, Narrative Explanation, Cost Elements, Principle Milestones, etc.). A P-26 exhibit is only included if data beyond Project Type and Total Cost are included (for example, Description, Contractor, Maintenance/Recurring/Environmental/Other costs, etc.)

#### Justification:

FY 2016 Base procurement dollars in the amount of \$4.704 million support the establishment, modernization, rightsizing, or replacement of Army-owned industrial facilities. These funds are essential to sustain the Army's production capability for missile end items.

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Exhibit P-25, Production Sup	port and In	dustrial F	acilities C	ost Analys	is: PB 20	16 Army		Date: Feb	ate: February 2015			
Appropriation / Budget Activi 2032A / 05 / 10	ty / Budge	t Sub Acti	vity:			P-1 Line Item Number / Title: CA0100 / Production Base Support						
Project Title: PIF for Other (RN	108 - Produ	ction Base	)			Project No 6XX5333	umber:	Project Category: Production Support				
End Item Supported Model: M	lissile Warh	neads, Roc	ket Motors					Annual Capa	city Befor	e / After (	1-8-5): /	
Cost Elements (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total		ne: Iowa AAP; Radford					
A. Construction Cost	0.485	1.385	0.486	-	0.486	Facility Type (GOGO, GOCO, COCO): GOCO						
B. Equipment Cost	1.869	0.738	1.295	-	1.295	295 Principal Milestones Month & Year						
C. Equipment Installation Cost	0.125	0.378	1.042	-	1.042	Concept Des	ign Complete:					
D. Contractor Support Cost	0.069	0.222	0.155	-	0.155	Final Design				Mar 2046 / /	M 2040	
E. Corps of Engineers Support Cost	-	-	-	-	-	Construction	roject Award: Complete:			Mar 2016 / I Nov 2017	viay 2016	
F. Other In-House Support Cost	-	-	-	-	-	Equipment Ir	stallation Complete:			Aug 2017		
G. Total Facility Project Cost	-	-	-	-	-	Prove Out Begins: Feb 2017						
H. Other Costs	0.078	0.285	-	-	-	Prove Out Complete: Sep 2017 - Related Projects						
Total Project Cost	2.626	3.008	2.978	-	2.978	178					Compl	
						Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Date

## **Narrative Explanation:**

FY 2016 Base procurement dollars in the amount of \$2.978 million support production capability for missile end items and Iowa and Radford Army Ammunition Plants (AAPs). At Iowa AAP, it supports projects on Line 4B to include replacement of the existing environmental chamber used during the test fire process, construction of a new compressor facility, and replacement of control systems for warhead presses. The effort will also renovate deteriorated structural elements on active production buildings on Line 1-10. At Radford AAP, it will construct and commission new hydraulic power units to control the extrusion process of carpet rolls (solventless propellant) into propellant grains, sticks or small grain configurations.

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Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 201 Appropriation / Budget Activity / Budget Sub Activity: 2032A / 05 / 10 Project Title: PIF FOR OTHER (RL07 - Test & Evaluation Instrumentation) End Item Supported Model: Testing of Missile Systems							16 Army				Date: February 2015			
							P-1 Line Item Number / Title: CA0100 / Production Base Support							
							mber:	Project Category: Production Support						
							Annual Capacity Before / After (1-8-5): /							
Cost Elements (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Redstone Tech Test Center; White Sands Test Center Facility Location: Huntsville, AL; White Sands Missile Range, NM								
A. Construction Cost	-	-	-	-	-	Facility Type (GOGO, GOCO, COCO): GOGO								
B. Equipment Cost	2.051	1.702	1.726	-	1.726	Principal Mile	stones	Month & Year						
C. Equipment Installation Cost	-	-	-	-	-	Concept Desig	n Complete:							
D. Contractor Support Cost	-	-	-	-	-	Final Design Complete: Initial/Final Project Award: Dec 2015 / Mar 2016								
E. Corps of Engineers Support Cost	-	-	-	-	-	Construction Complete: Equipment Installation Complete: Dec 2016								
F. Other In-House Support Cost	-	-	-	-	-									
G. Total Facility Project Cost	-	-	-	-	-	Prove Out Beg	•							
H. Other Costs	-	-	-	-	-	Prove Out Complete:  Related Projects								
Total Project Cost	2.051	1.702	1.726	-	1.726	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date		

## **Narrative Explanation:**

FY 2016 Base procurement dollars in the amount of \$1.726 million support the following: Procures a Non-Track Digital Instrumentation System (NTDIS), which is a mobile video broadcast van with equipment capable of near real time viewing, recording, processing, and remote network control of high-speed video data collected at missile launch sites; multiple types of sensors that collect, record and analyze the physical environments (vibration, shock, displacement, pressure, temperature, & acoustics) on and near the Launcher during weapon firing events; test equipment and radar simulators required to test radar transponders used in missile tracking and flight safety and portable measuring equipment, visual inspection equipment, dynamic balancing instrumentation, and moment of inertia measuring equipment used for dimensional metrology inspection of missile components in the laboratory.

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