

UNCLASSIFIED

**Department of Defense
Fiscal Year (FY) 2017 Request for Additional Appropriations**

March 2017



Army

*Justification Book of
Missile Procurement, Army*

UNCLASSIFIED

COST STATEMENT

The following Justification Books were prepared at a cost of \$69,900: Aircraft (ACFT), Missile (MSLS), Weapons & Tracked Combat Vehicles (WTCV), Ammunition (AMMO), Other Procurement Army (OPA) 2 - Communications & Electronics, Other Procurement Army (OPA) 3 & 4 - Other Support Equipment & Spares, Research, Development, Test and Evaluation (RDTE) for: Budget Activity 3, Budget Activity 4, Budget Activity 5A, Budget Activity 5B, Budget Activity 6, and Budget Activity 7.

MISSILE PROCUREMENT, ARMY

Appropriation Language

For construction, procurement, production, modification, and modernization of missile equipment, including ordnance, ground handling equipment, spare parts, and accessories therefore; specialized equipment and training devices; expansion of public and private plants, including the land necessary therefore, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes, \$2,835,137 to remain available for obligation until September 30, 2019, of which \$9,297,000 shall be available for the Army National Guard and Army Reserve.

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation	FY 2017 PB Request Base	FY 2017 Mar Amended Request Base	FY 2017 Revised PB Request Base	FY 2017 PB Request OCO
Missile Procurement, Army	1,519,966	852,654	2,372,620	632,817
Total Department of the Army	1,519,966	852,654	2,372,620	632,817

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation	FY 2017 Nov Amended Request OCO	FY 2017 Mar Amended Request OCO	FY 2017 Total OCO Request	FY 2017 Less Enacted Div.B,P.L. 114-254 OCO
Missile Procurement, Army	46,500	12,300	691,617	-229,100
Total Department of the Army	46,500	12,300	691,617	-229,100

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

<u>Appropriation</u>	<u>FY 2017 Remaining PB Request OCO</u>	<u>FY 2017 PB Request wNov Amend Less Enacted PL 114-254 Base+OCO</u>	<u>FY 2017 Mar Amended Request Base+OCO</u>	<u>FY 2017 PB Remaining Base+OCO</u>
Missile Procurement, Army	462,517	1,970,183	864,954	2,835,137
Total Department of the Army	462,517	1,970,183	864,954	2,835,137

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands)

06 Mar 2017

Appropriation: Missile Procurement, Army

Budget Activity	FY 2017 PB Request Base	FY 2017 Mar Amended Request Base	FY 2017 Revised PB Request Base	FY 2017 PB Request OCO
02. Other Missiles	1,061,325	573,603	1,634,928	632,817
03. Modification of Missiles	418,085	279,051	697,136	
04. Spares and Repair Parts	34,487		34,487	
05. Support Equipment and Facilities	6,069		6,069	
Total Missile Procurement, Army	1,519,966	852,654	2,372,620	632,817

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation: Missile Procurement, Army

Budget Activity	FY 2017 Nov Amended Request OCO	FY 2017 Mar Amended Request OCO	FY 2017 Total OCO Request	FY 2017 Less Enacted Div. B, P. L. 114-254 OCO
02. Other Missiles	46,500	12,300	691,617	-229,100
03. Modification of Missiles				
04. Spares and Repair Parts				
05. Support Equipment and Facilities				
Total Missile Procurement, Army	46,500	12,300	691,617	-229,100

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation: Missile Procurement, Army

Budget Activity	FY 2017 Remaining PB Request OCO	FY 2017 PB Request wNov Amend Less Enacted PL 114-254 Base+OCO	FY 2017 Mar Amended Request Base+OCO	FY 2017 PB Remaining Base+OCO
02. Other Missiles	462,517	1,511,542	585,903	2,097,445
03. Modification of Missiles		418,085	279,051	697,136
04. Spares and Repair Parts		34,487		34,487
05. Support Equipment and Facilities		6,069		6,069
Total Missile Procurement, Army	462,517	1,970,183	864,954	2,835,137

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request Base		FY 2017 Mar Amended Request Base		FY 2017 Revised PB Request Base		FY 2017 PB Request OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 02: Other Missiles											
Surface-to-Air Missile System											
1	Lower Tier Air and Missile Defense (AMD)	A		126,470				126,470			U
2	MSE Missile		85	423,201	279,000		85	702,201			U
3	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I Advance Procurement (CY) C (FY 2017 for FY 2018) (M)			19,319 (19,319)				19,319 (19,319)			U
Air-To-Surface Missile System											
4	Hellfire Sys Summary	A	155	42,013			155	42,013	4055	455,830	U
5	Joint Air-To-Ground Msls (JAGM) Less: Advance Procurement (PY)		324	(92,489) (-27,738)			324	(92,489) (-27,738)			U U
				64,751				64,751			
6	Joint Air-To-Ground Msls (JAGM) Advance Procurement (CY) C (FY 2017 for FY 2018) (M)			37,100 (37,100)				37,100 (37,100)			U
Anti-Tank/Assault Missile Sys											
7	Javelin (Aaws-M) System Summary		309	73,508	591	104,200	900	177,708	83	15,567	U
8	Tow 2 System Summary	A	595	64,922			595	64,922	815	80,652	U
9	Tow 2 System Summary Advance Procurement (CY) C (FY 2017 for FY 2018) (M)			19,949 (19,949)				19,949 (19,949)			U
10	TOW 2 System Summary	A			538	35,903	538	35,903			U

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 Nov Amended Request OCO		FY 2017 Mar Amended Request OCO		FY 2017 Total OCO Request		FY 2017 Less Enacted Div.B,P.L. 114-254 OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 02: Other Missiles											
Surface-to-Air Missile System											
1	Lower Tier Air and Missile Defense (AMD)	A									U
2	MSE Missile										U
3	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I Advance Procurement (CY) C (FY 2017 for FY 2018) (M)										U
Air-To-Surface Missile System											
4	Hellfire Sys Summary	A					4055	455,830		-227,500	U
5	Joint Air-To-Ground MsIs (JAGM) Less: Advance Procurement (PY)										U
6	Joint Air-To-Ground MsIs (JAGM) Advance Procurement (CY) C (FY 2017 for FY 2018) (M)										U
Anti-Tank/Assault Missile Sys											
7	Javelin (Aaws-M) System Summary						83	15,567			U
8	Tow 2 System Summary	A					815	80,652			U
9	Tow 2 System Summary Advance Procurement (CY) C (FY 2017 for FY 2018) (M)										U
10	TOW 2 System Summary	A									U

P-1AMF: Budget Amendment to the FY 2017 President's Budget Request (Published Version), as of March 6, 2017 at 14:52:58

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 Remaining PB Request OCO		FY 2017 PB Request wNov Amend Less Enacted PL 114-254 Base+OCO		FY 2017 Mar Amended Request Base+OCO		FY 2017 PB Remaining Base+OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 02: Other Missiles											
Surface-to-Air Missile System											
1	Lower Tier Air and Missile Defense (AMD)	A				126,470				126,470	U
2	MSE Missile				85	423,201		279,000	85	702,201	U
3	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I Advance Procurement (CY) C (FY 2017 for FY 2018) (M)					19,319				19,319	U
						(19,319)				(19,319)	U
Air-To-Surface Missile System											
4	Hellfire Sys Summary	A	4055	228,330	4210	270,343			4210	270,343	U
5	Joint Air-To-Ground MsIs (JAGM) Less: Advance Procurement (PY)				324	(92,489)			324	(92,489)	U
						(-27,738)				(-27,738)	U
						64,751				64,751	
6	Joint Air-To-Ground MsIs (JAGM) Advance Procurement (CY) C (FY 2017 for FY 2018) (M)					37,100				37,100	U
						(37,100)				(37,100)	U
Anti-Tank/Assault Missile Sys											
7	Javelin (Aaws-M) System Summary		83	15,567	392	89,075	591	104,200	983	193,275	U
8	Tow 2 System Summary	A	815	80,652	1410	145,574			1410	145,574	U
9	Tow 2 System Summary Advance Procurement (CY) C (FY 2017 for FY 2018) (M)					19,949				19,949	U
						(19,949)				(19,949)	U
10	TOW 2 System Summary	A					538	35,903	538	35,903	U

P-1AMF: Budget Amendment to the FY 2017 President's Budget Request (Published Version), as of March 6, 2017 at 14:52:58

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request Base		FY 2017 Mar Amended Request Base		FY 2017 Revised PB Request Base		FY 2017 PB Request OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
11	Guided MLRS Rocket (GMLRS)		1068	172,088	1188	154,500	2256	326,588	698	75,991	U
12	MLRS Reduced Range Practice Rockets (RRPR)		1704	18,004			1704	18,004			U
13	LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	A							10	4,777	U
Total Other Missiles				1,061,325		573,603		1,634,928		632,817	
Budget Activity 03: Modification of Missiles											
Modifications											
14	Patriot Mods			197,107	58	228,200	58	425,307			U
15	ATACMS MODS	A		150,043	17	15,900	17	165,943			U
16	GMLRS MOD	A		395				395			U
17	Stinger Mods				275	6,578	275	6,578			U
18	Avenger Mods			33,606	16	2,373	16	35,979			U
19	Itas/Tow Mods			383				383			U
20	MLRS Mods			34,704				34,704			U
21	Himars Modifications			1,847	363	26,000	363	27,847			U
Total Modification of Missiles				418,085		279,051		697,136			

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 Nov Amended Request OCO		FY 2017 Mar Amended Request OCO		FY 2017 Total OCO Request		FY 2017 Less Enacted Div.B,P.L. 114-254 OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
11	Guided MLRS Rocket (GMLRS)						698	75,991			U
12	MLRS Reduced Range Practice Rockets (RRPR)										U
13	LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	A	535	46,500	110	12,300	655	63,577		-1,600	U
Total Other Missiles				46,500		12,300		691,617		-229,100	
Budget Activity 03: Modification of Missiles											

Modifications											
14	Patriot Mods										U
15	ATACMS MODS	A									U
16	GMLRS MOD	A									U
17	Stinger Mods										U
18	Avenger Mods										U
19	Itas/Tow Mods										U
20	MLRS Mods										U
21	Himars Modifications										U
Total Modification of Missiles											

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 Remaining PB Request OCO		FY 2017 PB Request wNov Amend Less Enacted PL 114-254 Base+OCO		FY 2017 Mar Amended Request Base+OCO		FY 2017 PB Remaining Base+OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
11	Guided MLRS Rocket (GMLRS)		698	75,991	1766	248,079	1188	154,500	2954	402,579	U
12	MLRS Reduced Range Practice Rockets (RRPR)				1704	18,004			1704	18,004	U
13	LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	A	655	61,977	545	49,677	110	12,300	655	61,977	U
Total Other Missiles				462,517		1,511,542		585,903		2,097,445	
Budget Activity 03: Modification of Missiles											

Modifications											
14	Patriot Mods					197,107	58	228,200	58	425,307	U
15	ATACMS MODS	A				150,043	17	15,900	17	165,943	U
16	GMLRS MOD	A				395				395	U
17	Stinger Mods						275	6,578	275	6,578	U
18	Avenger Mods					33,606	16	2,373	16	35,979	U
19	Itas/Tow Mods					383				383	U
20	MLRS Mods					34,704				34,704	U
21	Himars Modifications					1,847	363	26,000	363	27,847	U
Total Modification of Missiles						418,085		279,051		697,136	

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request Base		FY 2017 Mar Amended Request Base		FY 2017 Revised PB Request Base		FY 2017 PB Request OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 04: Spares and Repair Parts											
Spares and Repair Parts											
22	Spares and Repair Parts			34,487				34,487			U
Total Spares and Repair Parts				34,487				34,487			
Budget Activity 05: Support Equipment and Facilities											
Support Equipment & Facilities											
23	Air Defense Targets			4,915				4,915			U
24	Production Base Support			1,154				1,154			U
Total Support Equipment and Facilities				6,069				6,069			
Total Missile Procurement, Army				1,519,966		852,654		2,372,620		632,817	

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 Nov Amended Request OCO		FY 2017 Mar Amended Request OCO		FY 2017 Total OCO Request		FY 2017 Less Enacted Div.B,P.L. 114-254 OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
<u>Budget Activity 04: Spares and Repair Parts</u>											
	Spares and Repair Parts										
	22 Spares and Repair Parts										
	Total Spares and Repair Parts										
<u>Budget Activity 05: Support Equipment and Facilities</u>											
	Support Equipment & Facilities										
	23 Air Defense Targets										
	24 Production Base Support										
	Total Support Equipment and Facilities										
	Total Missile Procurement, Army										
			46,500		12,300		691,617		-229,100		

UNCLASSIFIED

Department of the Army
 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Exhibit P-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)
 Total Obligational Authority
 (Dollars in Thousands) 06 Mar 2017

Appropriation: 2032A Missile Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 Remaining PB Request OCO		FY 2017 PB Request wNov Amend Less Enacted PL 114-254 Base+OCO		FY 2017 Mar Amended Request Base+OCO		FY 2017 PB Remaining Base+OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 04: Spares and Repair Parts											
Spares and Repair Parts											
22	Spares and Repair Parts					34,487				34,487	U
Total Spares and Repair Parts						34,487				34,487	
Budget Activity 05: Support Equipment and Facilities											
Support Equipment & Facilities											
23	Air Defense Targets					4,915				4,915	U
24	Production Base Support					1,154				1,154	U
Total Support Equipment and Facilities						6,069				6,069	
Total Missile Procurement, Army				462,517		1,970,183		864,954		2,835,137	

UNCLASSIFIED

Army • Request for Additional Appropriations FY 2017 • Procurement

Table of Contents

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

UNCLASSIFIED

Army • Request for Additional Appropriations FY 2017 • Procurement

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

Appropriation 2032A: Missile Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
2	02	10	C53101	MSE Missile.....	1
7	02	30	CC0007	Javelin (AAWS-M) System Summary.....	3
8	02	30	C59300	TOW 2 System Summary.....	5
10	02	30	C64400	Guided MLRS Rocket (GMLRS).....	7
12	02	30	C88001	LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS).....	9

Appropriation 2032A: Missile Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
13	03	10	C50700	Patriot Mods.....	11
14	03	10	CA6700	ATACMS MODS.....	14
16	03	10	C20000	Stinger Mods.....	16
17	03	10	CE8710	AVENGER MODS.....	18
20	03	10	C67501	HIMARS Modifications.....	20

UNCLASSIFIED

UNCLASSIFIED

Army • Request for Additional Appropriations FY 2017 • Procurement

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

Line Item Title	Line Item Number	Line #	BA	BSA	Page
ATACMS MODS	CA6700	14	03	10.....	14
AVENGER MODS	CE8710	17	03	10.....	18
Guided MLRS Rocket (GMLRS)	C64400	10	02	30.....	7
HIMARS Modifications	C67501	20	03	10.....	20
Javelin (AAWS-M) System Summary	CC0007	7	02	30.....	3
LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)	C88001	12	02	30.....	9
MSE Missile	C53101	2	02	10.....	1
Patriot Mods	C50700	13	03	10.....	11
Stinger Mods	C20000	16	03	10.....	16
TOW 2 System Summary	C59300	8	02	30.....	5

UNCLASSIFIED

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air Missile System
P-1 Line Item Number / Title: C53101 / MSE Missile

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604865A, 0603869A, 0604869A, 0605456A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	92	108	112	145	-	145	93	95	95	95	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	778.722	532.605	514.946	702.201	-	702.201	459.040	497.009	529.839	520.513	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	778.722	532.605	514.946	702.201	-	702.201	459.040	497.009	529.839	520.513	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	778.722	532.605	514.946	702.201	-	702.201	459.040	497.009	529.839	520.513	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	8,464.370	4,931.528	4,597.732	4,842.766	-	4,842.766	4,935.914	5,231.674	5,577.253	5,479.084	Continuing	Continuing

Description:

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

Secondary Distribution		FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021
Army	Quantity	108	112	145	-	145	93	95	95	95
	Total Obligation Authority	532.605	514.946	702.201	-	702.201	459.040	497.009	529.839	520.513
Total: Secondary Distribution	Quantity	108	112	145	-	145	93	95	95	95
	Total Obligation Authority	532.605	514.946	702.201	-	702.201	459.040	497.009	529.839	520.513

Justification:

The FY 2017 base procurement dollars in the amount of \$423.201 million supports the production of 85 Missile Segment Enhancement (MSE) missiles, Field Surveillance Program (FSP), supporting equipment such as missile round trainers, empty round trainers, ancillary missile items, PAC-3 Missile Support Center (P3MSC) and Obsolescence, and System Engineering/Program Management (SE/PM).

Amendment Justification: This increase requests an additional \$279.000 million to procure 60 missiles with 130 MSE Launcher Modification Kits (LMKs) above the PB 2017 Request. These missiles and kits will provide capability to defeat advanced Tactical Ballistic Missiles (TBMs) and upgrade the M-902 launcher to the M-903 launcher, making it PAC-3 MSE capable.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army		Date: March 2017
Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 10: Surface-to-Air Missile System		P-1 Line Item Number / Title: C53101 / MSE Missile
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604865A, 0603869A, 0604869A, 0605456A
Line Item MDAP/MAIS Code: N/A		
Army Acquisition Objective (AAO) is 3376.		
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.		
*Unit prices reflect an assessed yearly FMS procurement of PAC-3 missile variants. In the event FMS procurements do not occur at this level, the budgeted missile unit price may not be achievable.		
**Quantities will be procured at an optimized rate utilizing price advantage created through contract negotiation, FPIF contract ceiling liability reduction through price determination, other service procurement, and/or foreign military sales in a buy-to-budget procurement strategy.		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

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

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	27,950	311	850	900	83	983	370	367	422	670	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	4,589.049	72.877	168.163	177.708	15.567	193.275	89.520	88.702	100.539	143.917	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	100.622	-	-	-	-	-	-	-	-	-	-	100.622
Net Procurement (P-1) (<i>\$ in Millions</i>)	4,488.427	72.877	168.163	177.708	15.567	193.275	89.520	88.702	100.539	143.917	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	100.622	-	-	-	-	-	-	-	-	-	-	100.622
Total Obligation Authority (<i>\$ in Millions</i>)	4,589.049	72.877	168.163	177.708	15.567	193.275	89.520	88.702	100.539	143.917	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	164.188	234.331	197.839	197.453	187.554	196.617	241.946	241.695	238.244	214.801	Continuing	Continuing

Description:

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

Secondary Distribution		FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021
Army	Quantity	311	850	900	83	983	370	367	422	670
	Total Obligation Authority	72.877	168.163	177.708	15.567	193.275	89.520	88.702	100.539	143.917
Total:	Quantity	311	850	900	83	983	370	367	422	670
Secondary Distribution	Total Obligation Authority	72.877	168.163	177.708	15.567	193.275	89.520	88.702	100.539	143.917

Justification:

FY 2017 Base procurement dollars in the amount of \$73.508 million support the procurement of 309 Missiles.

FY 2017 OCO procurement dollars in the amount of \$15.567 million to support the COCOM requirement for unit equipment sets to deter potential adversaries and support the European Reassurance Initiative. The procurement includes 83 missiles.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army		Date: March 2017
Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys		P-1 Line Item Number / Title: CC0007 / Javelin (AAWS-M) System Summary
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604611A
Line Item MDAP/MAIS Code: N/A		
<p>The estimated missile unit prices are based on combined United States Army, other services, and FMS procurements of 850 missiles per year.</p> <p>Amendment Justification: This increase requests an additional \$104.2M to procure 591 missiles above both the PB 2017 and FY2017 OCO Amendment Requests. The Total Army Munitions Requirement (TAMR) is expected to increase by 4,599 missiles to 12,786 missiles later this year.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or foreign military sales into a buy-to-budget procurement strategy, or to implement a cost reduction Engineering Change Proposal (ECP) for G-Model missile.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

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

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	167,942	1,008	1,704	1,133	815	1,948	640	637	738	745	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3,130.020	70.333	107.509	100.825	80.652	181.477	89.161	89.134	88.930	79.385	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	157.144	19.965	19.984	0.000	-	0.000	19.949	19.949	19.949	10.500	Continuing	Continuing
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,972.876	50.368	87.525	100.825	80.652	181.477	69.212	69.185	68.981	68.885	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	177.124	19.984	-	19.949	-	19.949	19.949	19.949	10.500	-	-	267.455
Total Obligation Authority (<i>\$ in Millions</i>)	3,150.000	70.352	87.525	120.774	80.652	201.426	89.161	89.134	79.481	68.885	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	18.638	69.775	63.092	88.989	98.960	93.161	139.314	139.928	120.501	106.557	Continuing	Continuing

Description:

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

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

Secondary Distribution	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	
Army	Quantity	1,008	1,704	1,133	815	1,948	640	637	738	745
	Total Obligation Authority	70.352	87.525	120.774	80.652	201.426	69.212	69.185	68.981	68.885
Total: Secondary Distribution	Quantity	1,008	1,704	1,133	815	1,948	640	637	738	745
	Total Obligation Authority	70.352	87.525	120.774	80.652	201.426	69.212	69.185	68.981	68.885

Justification:

FY 2017 Base procurement dollars in the amount of \$64.922 million support the procurement of 595 missiles and the first year of a five-year (FY17-21) multi-year contract.

FY 2017 OCO includes \$80.652 million to support the COCOM requirement for unit equipment sets to deter potential adversaries and support the European Reassurance Initiative. The procurements include the 815 TOW missiles.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army		Date: March 2017
Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys		P-1 Line Item Number / Title: C59300 / TOW 2 System Summary
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
Amendment Justification: This increase requests an additional \$35.903M to procure 538 TOW Bunker Buster missiles above both the PB 2017 and FY2017 OCO Amendment Requests. This missile is currently at only 85% of its Total Army Munitions Requirement (TAMR).		
In accordance with Section 1815 of the FY08 National Defense Authorization Act, this item is necessary for use by the active components and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.		
NOTES: The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or foreign military sales into a buy-to-budget procurement strategy.		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

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

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603778A, 0205778A
---	--	--

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	21,684	768	1,866	2,256	698	2,954	1,836	1,296	1,998	1,776	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,620.775	127.145	251.060	326.588	75.991	402.579	260.698	205.409	287.288	265.991	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,620.775	127.145	251.060	326.588	75.991	402.579	260.698	205.409	287.288	265.991	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,620.775	127.145	251.060	326.588	75.991	402.579	260.698	205.409	287.288	265.991	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	120.862	165.553	134.544	144.764	108.870	136.283	141.992	158.495	143.788	149.770	Continuing	Continuing

Description:

Guided Multiple Launch Rocket System (GMLRS) rockets are surface-to-surface artillery rockets fired from the Multiple Launch Rocket System (MLRS) and High Mobility Artillery Rocket System (HIMARS) launchers. 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-pound high explosive warhead to engage point targets with limited collateral damage. GMLRS Alternative Warhead (AW) was developed as a non-cluster munition replacement to GMLRS DPICM. The Program completed the Engineering and Manufacturing Development (EMD) Phase and entered full rate production in FY15. The GMLRS AW rocket is 90% common with the Unitary variant.

Secondary Distribution	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	
Army										
Quantity	768	1,866	2,256	698	2,954	1,836	1,296	1,998	1,776	
Total Obligation Authority	127.145	251.060	326.588	75.991	402.579	260.698	205.409	287.288	265.991	
Total:										
Secondary Distribution	Quantity	768	1,866	2,256	698	2,954	1,836	1,296	1,998	1,776
	Total Obligation Authority	127.145	251.060	326.588	75.991	402.579	260.698	205.409	287.288	265.991

Justification:

FY 2017 Base procurement dollars in the amount of \$171.638 million supports the acquisition of 1068 GMLRS AW rockets for the United States Army. Army Procurement Objective is 43,560.

FY 2017 Base procurement dollars in the amount of \$.450 million supports the acquisition of equipment and support to ensure Guided Multiple Launch Rocket Common Training Device alignment with the production configuration.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army		Date: March 2017
Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys		P-1 Line Item Number / Title: C64400 / Guided MLRS Rocket (GMLRS)
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603778A, 0205778A
Line Item MDAP/MAIS Code: N/A		

FY 2017 OCO includes \$75.991 million to support the COCOM requirement for unit equipment sets to deter potential adversaries and support the European Reassurance Initiative. The procurements include 698 GMLRS rockets.

Amendment Justification: This increase requests an additional \$154.5M to procure 1,188 missiles above both the PB 2017 and FY2017 OCO Amendment Requests. The GMLRS missile inventory is critically low, only 18,198 on hand of 96,240 (19%) of the FY23 Total Army Munitions Requirement (TAMR).

All funding goes to the Active Component.

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

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys	P-1 Line Item Number / Title: C88001 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)
---	---

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	645	645	-	-	-	-	-	645
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	-	63.577	63.577	-	-	-	-	-	63.577
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	-	-	63.577	63.577	-	-	-	-	-	63.577
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	-	63.577	63.577	-	-	-	-	-	63.577

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

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

Description:

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

Secondary Distribution	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021
Army									
Quantity	-	-	-	645	645	-	-	-	-
Total Obligation Authority	-	-	-	63.577	63.577	-	-	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	645	645	-	-	-	-
Total Obligation Authority	-	-	-	63.577	63.577	-	-	-	-

Justification:

FY 2017 Overseas Contingency Operations (OCO) dollars in the amount of \$4.777 million support the procurement of 10 fire control units, 10 training simulators, 10 battery chargers, and 50 inert training missiles, along with fielding and program management in order to support pre-deployment training and sustain the capability required by Joint Urgent Operational Needs Statement (JUONS) 0506 Mod 1.

FY 2017 Overseas Contingency Operations (OCO) Amendment dollars in the amount of \$46.500 million support the additional procurement of 26 fire control units, 535 All Up Rounds, 26 fire control units, 26 training simulators, 36 battery chargers, 100 inert training missiles, and other support equipment, to include fielding and program management in order to support pre-deployment training and sustain the capability required by Joint Urgent Operational Need Statement (JUONS) CC-0556. JUONS 0556 requirements will be procured via competitive acquisition.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army		Date: March 2017
Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 02: Other Missiles / BSA 30: Anti-Tank/ Assault Missile Sys		P-1 Line Item Number / Title: C88001 / LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or foreign military sales into a buy-to-budget procurement strategy, or to implement a cost reduction Engineering Change Proposal (ECP) for G-Model missile.</p> <p>Amendment Justification: This increase requests an additional \$12.300M to procure: 110 All Up Rounds (AUR), 12 Fire Control Units (FCU), 50 Inert Training Vehicles (ITV), and 12 Training Simulators (T-Sim) from both the PB 2017 and FY2017 OCO Amendment Requests. Supports JUON AC-0008.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	P-1 Line Item Number / Title: C50700 / Patriot Mods
---	---

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3,142.820	183.838	241.883	425.307	-	425.307	318.940	304.064	201.403	168.760	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	3,142.820	183.838	241.883	425.307	-	425.307	318.940	304.064	201.403	168.760	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3,142.820	183.838	241.883	425.307	-	425.307	318.940	304.064	201.403	168.760	Continuing	Continuing

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

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

Description:

The 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); Assured Positioning, Navigation, and Timing (PNT); Test Detachment; the Modern Manstation (MMS) upgrade; Enhanced Launcher Electronic Systems (ELES); SIPRNet/NIPRNet Access Point/Troposcatter (SNAP/TROPO), and Digital Sidelobe Canceller (DSLCL).

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

Recapitalization (RECAP) Modifications include 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 62 Battery Command Posts and 17 Tactical Command Systems. Additionally,

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army		Date: March 2017
Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications		P-1 Line Item Number / Title: C50700 / Patriot Mods
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0607865A
Line Item MDAP/MAIS Code: N/A		
<p>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. Efforts support updates for interoperability and supportability. Note: Quantities procured and installed in prior years.</p> <p>Combined Crypto Modification Phase I (CCMPI): The planned PATRIOT communications upgrade program is a phased approach leveraging National Security Agency (NSA) mandated crypto updates, user generated requirements, (PATRIOT Data Information Link (PADIL) over IP), Beyond Line of Sight (BLOS) communications, and communications hardware obsolescence mitigation efforts. This approach allows cost efficiencies and better business practices by synergizing these efforts. CCMPI is fully funded and addresses the PAC-3 Capability Production Document (CPD) requirements including the crypto modernization, a limited PADIL over Internet Protocol (IP) capability, and 3011C multi-cast (protocol). CCMPI installs a Black Station Clock Upgrade (BSCU) to allow for increased data rates; the Ruggedized iQ1000 (RiQ) for data processing and IP overlay; and interfaces for soldier provided SIPR/NIPR devices. The CCMPI program also replaces KG-94A/194A encryptors with KIV-7M encryptors.</p> <p>The Radar Digital Processor-Configuration (RDP-C) replaces obsolete digital processors with single rack commercial off-the-shelf based modern processors. Battery Replaceable Units (BRUs) are reduced from 759 to 56 with 13 power supplies and 18 racks removed. Benefits of the RDP-C include improvement in radar reliability, life cycle cost savings, and capability and growth potential through software improvements. The RDP-C modification will enable full AN/TPX-57(v)1 Identification Friend or Foe (IFF) Mode 5 Level 1 and 2 and new Combat Identification capabilities. The enhanced IFF capability allows for expanded target reports from the AN/TPX-57 which will include: National Origin, Platform ID Number (PIN), and GPS position (Level 2). The RDP-C is a prerequisite for migration to an IAMD Netted Sensor. The RDP-C will support efforts to counter emerging threats and growth to the netted sensor concept. This effort includes funding for kits and some spares.</p> <p>The Air Defense Artillery (ADA) School Upgrades/Training Aids, Devices, Simulators and Simulations (TADSS) modification is necessary to upgrade school assets to Configuration 3. Four Enhanced Launcher Electronics Systems (ELES) and four Radar Kits will complete the school upgrades.</p> <p>The PATRIOT Weapons System uses tactical equipment and training aids, devices, simulators, and simulations (TADSS) to conduct multi-level training for both operators and maintenance personnel. This includes both hardware devices and software programs utilized to include; the Patriot Maintenance Trainer (PMT), Reconfigurable Table Top Trainer (RT3) and the Patriot Multi-Echelon Training (PMET). The PMT is a new device being developed and planned for fielding to the Air Defense Artillery Schools at Fort Sill, OK. The PMT trains 14E, 140E, 14T, 94S and 948D 6D tasks. It reduces dependency on tactical equipment by merging physical simulators and virtual simulations replicating a realistic training environment. The PMT will have one instructor station, one radar set, one launching station, and an engagement control station. Some components will be actual physical representations of the tactical hardware while other components will be virtually simulated using state of the art gaming technology of P-MET. The two environments will work seamlessly together to simulate the tactical end items. P-MET is a Microsoft Windows® based software application utilizing state of the art gaming technology to train U.S. Army personnel in the proper trouble-shooting techniques to repair and maintain the PATRIOT Missile System. P-MET is the Life Cycle Replacement for the PATRIOT Intermediate Maintenance Institutional Trainer (PIMIT) for Intermediate Maintenance training but is also used for Organizational, NET, and even Depot maintenance training. P-MET is used in an institutional, field and depot environment. P-MET is designed and developed to operate on the RT3. The RT3 provides a flexible training platform that may be configured to support multiple training levels and systems, via removable hard drives. In PATRIOT the RT3 is used to run the PATRIOT tactical embedded training software (re-hosted tactical training software, PATRIOT Conduct of Fire Trainer (PCOFT)) for operations tasks, the P-MET software for maintenance tasks, and the PATRIOT Skills Library (PSL) lessons for both maintenance and operator tasks. Other weapon systems may also use the RT3 platform for training (i.e., C-RAM, THAAD, and JLENS). The RT3 is a Life Cycle Replacement for the PCOFT and the PATRIOT Intermediate Maintenance Institutional Trainer (PIMIT) hardware platforms.</p> <p>The Modern Manstation (MMS) is designed to significantly improve the reliability of the legacy Manstation by replacing 221 obsolete parts in 41 assemblies and reducing Battery Replaceable Units (BRUs) from 493 to 51. Benefits of the MMS include the installation of two 30" high resolution color LCD displays with touch panels; significant increase in Mean Time Between Failure rates; elimination of a costly Multi-Volt power supply while greatly improving the overall visual graphics used for decision making. The MMS upgrades increased Warfighter effectiveness; enable future capabilities; increase reliability; and reduce life cycle costs. Training will be aligned with the tactical system using the same technology, providing geopolitical maps, and utilizing color symbology for immediate recognition of friend, foe or unknown. Soft keys will enable future switch configurations with software upgrades. The MMS also enables future graphical user interface with Common Warfighter Machine Interface (CWMI) systems. The MMS modification upgrade will be incorporated into the Engagement Control Station (ECS) and the Information and Coordination Central (ICC) Shelters.</p> <p>The Enhanced Launcher Electronics System (ELES) modification upgrades a PAC-2 Launcher to a PAC-3 Capability.</p> <p>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 external battalion communications. Troposcatter terminals allow connectivity between PATRIOT shelters when local terrain or long distances make organic Ultra High Frequency (UHF) Line of Sight (LOS)</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	P-1 Line Item Number / Title: C50700 / Patriot Mods
---	---

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

Line Item MDAP/MAIS Code: N/A

communications impossible to support fire control quality data exchanges. SNAP terminals allow a PATRIOT shelter without access to any local infrastructure to remotely connect to both SIPRnet and NIPRnet using Ku, Ka, or X band satellites for range extension in response to Operational Need Statements from combatant commands.

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

Test Detachment - A manned and equipped unit consisting of various ancillary PATRIOT Ground Support Equipment elements that will assume the testing role and relieve operational units. The Air and Missile Defense (AMD) test detachment is a Table of Distribution and Allowances (TDA) unit consisting of 143 personnel containing a mixture of air defense, communications and maintenance Military Occupational Specialty (MOS) Soldiers which participate in all government developmental tests, missile flight tests, Tactics Techniques and Procedures (TTP) development and operational testing in support of the development, modernization and sustainment of current and future AMD programs. Use of this detachment to support testing versus tasking operational PATRIOT units allows execution of currently scheduled testing while vastly minimizing the stress on the 15 PATRIOT Battalions in the operational force.

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

Secondary Distribution		FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	183.838	241.883	425.307	-	425.307	318.940	304.064	201.403	168.760
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	183.838	241.883	425.307	-	425.307	318.940	304.064	201.403	168.760

Justification:
FY 2017 base procurement dollars in the amount of \$197.107 million supports the modifications for Reliability, Availability, and Maintainability Modifications (RAM Mods), Recapitalization (RECAP), Battery Command Post/ Tactical Command System/ Computer Software Module (BCP/TCS/CSM), Combined Crypto Modification Phase I (CCMPI), Radar Digital Processor-Configuration (RDP-C), SIPRNet/NIPRNet Access Point/Troposcatter (SNAP/TROPO), PATRIOT Maintenance Trainer (PMT), PATRIOT Multi-Echelon Training (PMET), Reconfigurable Table-Top Trainers (RT3), Assured Position, Navigation and Timing (PNT), Test Detachment, and Digital Sidelobe Cancellor (DSLCL).

Amendment Justification: This increase requests an additional \$228.200 million and procures 58 Enhanced Launcher Electronics System (ELES) above the PB 2017 Request. These systems will upgrade the PAC-2 launchers to PAC-3 capability.

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

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

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	P-1 Line Item Number / Title: CA6700 / ATACMS MODS
---	--

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	20.119	165.943	-	165.943	62.668	16.217	-	-	-	264.947
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	20.119	165.943	-	165.943	62.668	16.217	-	-	-	264.947
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	20.119	165.943	-	165.943	62.668	16.217	-	-	-	264.947

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	819.907	-	819.907	-	-	-	-	-	410.771

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 will be performed as a Service Life Extension Program (SLEP) and 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 updates 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 Distribution	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	20.119	165.943	-	165.943	62.668	16.217	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	20.119	165.943	-	165.943	62.668	16.217	-

Justification:

FY17 procurement dollars in the amount of \$150.043 million supports the modification of 183 expired ATACMS and resets their 10 year service life.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army		Date: March 2017
Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications		P-1 Line Item Number / Title: CA6700 / ATACMS MODS
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0203802A
Line Item MDAP/MAIS Code: N/A		
<p>Amendment Justification: This increase requests an additional \$15.900 million to upgrade 17 ATACMS missiles above the PB 2017 Request. These missiles mitigate a critical shortfall in Army War Reserve requirements through the Service Life Extension Program (SLEP).</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	P-1 Line Item Number / Title: C20000 / Stinger Mods
---	---

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	850	-	-	-	-	-	-	-	-	-	-	850
Gross/Weapon System Cost (<i>\$ in Millions</i>)	238.894	1.355	2.216	6.578	-	6.578	-	-	-	-	-	249.043
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	238.894	1.355	2.216	6.578	-	6.578	-	-	-	-	-	249.043
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	238.894	1.355	2.216	6.578	-	6.578	-	-	-	-	-	249.043

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	281.052	-	-	-	-	-	-	-	-	-	-	292.992

Description:

The Stinger Block I missile is an advanced, fire-and-forget, short-range, man-portable, air defense weapon system. Stinger's mission is to provide the force with low-altitude air defense against fixed and rotary wing aircraft, unmanned aircraft systems (UAS) and cruise missiles (CM). Stinger employs an infrared (heat seeking)/ultraviolet seeker to guide to the target. Stinger Block I has extensive infrared counter-countermeasure capabilities and can engage targets from any aspect to include head-on. The missile utilizes a high-explosive, hit-to-kill warhead. Stinger can be fired from the shoulder or from a variety of platforms to include vehicles, helicopters and UAS. The missile is delivered as a certified round and requires no field testing or maintenance.

The decision was made to separate the Proximity Fuze development from the Service Life Extension Program (SLEP) and to go forward only with the SLEP program following Proximity Fuze Flight Test Failures. This effort funds the procurement of rocket motors, standard warheads, and various Line Replaceable Units (LRUs) associated with the SLEP process.

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 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.

Secondary Distribution	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.355	2.216	6.578	-	6.578	-	-	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.355	2.216	6.578	-	6.578	-	-	-	-

Justification:

There is no funding in FY2017.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army		Date: March 2017
Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications		P-1 Line Item Number / Title: C20000 / Stinger Mods
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0203801A
Line Item MDAP/MAIS Code: N/A		
<p>Amendment Justification: This requests \$6.578 million and upgrades 119 additional missiles above the PB 2017 Request. These missiles improve reliability through the Service Life Extension Program (SLEP) and will fill unit authorizations under the NDAA force structure increase to 476K.</p> <p>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.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	P-1 Line Item Number / Title: CE8710 / AVENGER MODS
---	---

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	5.611	6.171	35.979	-	35.979	63.123	31.434	1.397	1.324	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	5.611	6.171	35.979	-	35.979	63.123	31.434	1.397	1.324	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	5.611	6.171	35.979	-	35.979	63.123	31.434	1.397	1.324	Continuing	Continuing

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	256.534	-	256.534	-	-	-	-	Continuing	Continuing

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 (IFPC Inc 2-I) which fully fields by FY31.

The Targeting Console (TC) is a required subsystem that provides the gunner with information and controls necessary to carry out the short range Air Defense Mission. The current Targeting Console is not supportable beyond FY18. This program will fund 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 FAAD early warning network.

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

The Vehicle Internal Communications 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 FY31. The AFCC-Revised (AFCC-R) will replace the current AFCC. The Avenger Fire Control Computer-Revised (AFCC-R) will undergo software and hardware upgrades that will enable the system to handle 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.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	P-1 Line Item Number / Title: CE8710 / AVENGER MODS
---	---

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

Line Item MDAP/MAIS Code: N/A

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

Secondary Distribution		FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.611	6.171	34.780	-	34.780	19.016	7.266	1.397	1.324
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	1.199	-	1.199	44.107	24.168	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.611	6.171	35.979	-	35.979	63.123	31.434	1.397	1.324

Justification:
 FY 2017 procurement dollars in the amount of \$33.606 million support the acquisition of 131 Mode5/IFF units. The P-40 Secondary Distribution table shows funding for Line Replaceable Units (LRU) kits procured for Active and National Guard units and are not representative of procuring full-up Avenger systems.

Amendment Justification: This increase requests an additional \$2.373 million to upgrade 16 Avenger weapon systems above the PB 2017 Request. These systems improve reliability through the Service Life Extension Program (SLEP) and will fill unit authorizations under the NDAA force structure increase to 476K.

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.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army **Date:** March 2017

Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications	P-1 Line Item Number / Title: C67501 / HIMARS Modifications
---	---

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0210600A, 0603778A, 0210602A
--	---	---

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	220.289	6.008	3.148	27.847	-	27.847	9.566	10.456	12.768	6.320	204.749	501.151
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	220.289	6.008	3.148	27.847	-	27.847	9.566	10.456	12.768	6.320	204.749	501.151
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	220.289	6.008	3.148	27.847	-	27.847	9.566	10.456	12.768	6.320	204.749	501.151

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	73.880	-	73.880	-	-	-	-	-	589.589

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, Enhanced Command and Control (C2), decrease Operations and Support costs, reduce logistical impacts, resolve safety issues, and mitigate obsolescence.

Secondary Distribution	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.485	1.008	26.356	-	26.356	4.256	4.704	7.164
ANG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.523	2.140	1.491	-	1.491	5.310	5.752	5.604
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.008	3.148	27.847	-	27.847	9.566	10.456	12.768

Justification:

FY 2017 Base procurement dollars in the amount of \$1.847 million will procure and install Enhanced Command and Control (C2) and continue Obsolescence Mitigation/Engineering Change Proposal Integration that supports updates or changes for hardware and software required to support launcher upgrades such as software modification efforts to address obsolescence, upgrades to platform trainers, transparent armor protection and suspension improvements.

Amendment Justification: This increase requests an additional \$26.000 million to procure 363 Maintenance Support Devices above the PB 2017 request. These devices support the HIMARS system upgrades.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: Request for Additional Appropriations 2017 Army		Date: March 2017
Appropriation / Budget Activity / Budget Sub Activity: 2032A: Missile Procurement, Army / BA 03: Modification of Missiles / BSA 10: Modifications		P-1 Line Item Number / Title: C67501 / HIMARS Modifications
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0210600A, 0603778A, 0210602A
Line Item MDAP/MAIS Code: N/A		
In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.		