

# DEPARTMENT OF THE ARMY

## Procurement Programs



Committee Staff Procurement Backup Book  
Fiscal Year (FY) 2011 Budget Estimates

### MISSILE PROCUREMENT, ARMY

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APPROPRIATION

February 2010



# 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, \$2,231,265,000 to remain available for obligation until September 30, 2013.



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**DEPARTMENT OF THE ARMY**  
**FY 2011 PROCUREMENT PROGRAM**  
**President's Budget FY 2011**

**EXHIBIT P-1**  
**DATE: 25-Jan-2010 7:46**

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APPROPRIATION SUMMARY

APPROPRIATION

Missile Procurement, Army

**TOTAL PROCUREMENT PROGRAM**

DOLLARS IN THOUSANDS

FY2009	FY2010	FY2011	FY2011 OCO	FY2011 Total
2,851,700	1,723,148	1,887,437	343,828	2,231,265
<b>2,851,700</b>	<b>1,723,148</b>	<b>1,887,437</b>	<b>343,828</b>	<b>2,231,265</b>

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APPROPRIATION Missile Procurement, Army		DOLLARS IN THOUSANDS					
ACTIVITY	FY2009	FY2010	FY2011	FY2011 OCO	FY2011 Total	PAGE	
02 Other missiles	2,128,221	1,546,225	1,740,488	303,228	2,043,716	4	
03 Modification of missiles	687,090	144,921	118,049	40,600	158,649	5	
04 Spares and repair parts	25,850	22,269	19,569		19,569	6	
05 Support equipment and facilities	10,539	9,733	9,331		9,331	7	
<b>APPROPRIATION TOTALS</b>	<b>2,851,700</b>	<b>1,723,148</b>	<b>1,887,437</b>	<b>343,828</b>	<b>2,231,265</b>		

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APPROPRIATION Missile Procurement, Army		ACTIVITY 02 Other missiles	DOLLARS IN THOUSANDS									
LINE NO	ITEM NOMENCLATURE	ID	FY 2009		FY 2010		FY 2011		FY 2011 OCO		FY 2011 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
<i>SURFACE-TO-AIR MISSILE SYSTEM</i>												
1	PATRIOT SYSTEM SUMMARY (C49100)	A	108	510,576	58	341,296	78	480,247			78	480,247
2	Surface-Launched AMRAAM System Summary: (C81001) Less: Advance Procurement (PY)	A				(40,349)		(116,732)				(116,732)
						(-40,349)						
						0		116,732				116,732
3	Surface-Launched AMRAAM System Summary: (C81001) Advance Procurement (CY)			40,349								
	<i>SUB-ACTIVITY TOTAL</i>			<u>550,925</u>		<u>341,296</u>		<u>596,979</u>				<u>596,979</u>
<i>AIR-TO-SURFACE MISSILE SYSTEM</i>												
4	HELLFIRE SYS SUMMARY (C70000)	A	2,945	253,124	2,165	227,101	240	31,881		190,459	240	222,340
	<i>SUB-ACTIVITY TOTAL</i>			<u>253,124</u>		<u>227,101</u>		<u>31,881</u>		<u>190,459</u>		<u>222,340</u>
<i>ANTI-TANK/ASSAULT MISSILE SYSTEM</i>												
5	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)		1,320	367,888	1,265	258,553	715	163,929			715	163,929
6	TOW 2 SYSTEM SUMMARY (C59300) Less: Advance Procurement (PY)	A	9,022	(404,345)	1,849	(141,933)		(30,326)	1,200	(112,769)	1,200	(143,095)
				(-10,000)								
				<u>394,345</u>		<u>141,933</u>		<u>30,326</u>		<u>112,769</u>		<u>143,095</u>
7	TOW 2 SYSTEM SUMMARY (C59300) Advance Procurement (CY)							48,355				48,355
8	BCT Non Line of Sight Launch System - Increment 1 (C64501)	A						350,574				350,574
9	Guided MLRS Rocket (GMLRS) (C64400)		2,652	309,205	3,228	353,311	2,592	291,041			2,592	291,041
10	MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)		4,014	25,225	2,064	15,615	2,058	15,886			2,058	15,886
11	High Mobility Artillery Rocket System (HIMARS) (C02901)		57	227,509	46	208,416	44	211,517			44	211,517
	<i>SUB-ACTIVITY TOTAL</i>			<u>1,324,172</u>		<u>977,828</u>		<u>1,111,628</u>		<u>112,769</u>		<u>1,224,397</u>

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APPROPRIATION Missile Procurement, Army

ACTIVITY 02 Other missiles

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2009		FY 2010		FY 2011		FY 2011 OCO		FY 2011 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	ACTIVITY TOTAL			2,128,221		1,546,225		1,740,488		303,228		2,043,716

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APPROPRIATION Missile Procurement, Army		ACTIVITY 03 Modification of missiles	DOLLARS IN THOUSANDS									
LINE NO	ITEM NOMENCLATURE	ID	FY 2009		FY 2010		FY 2011		FY 2011 OCO		FY 2011 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
<i>MODIFICATIONS</i>												
12	PATRIOT MODS (C50700)			515,375		44,637		57,170				57,170
13	ITAS/TOW MODS (C61700)			136,705		6,961		13,281		40,600		53,881
14	MLRS MODS (C67500)			1,866		22,423		8,217				8,217
15	HIMARS MODIFICATIONS (C67501)			33,144		70,890		39,371				39,371
16	HELLFIRE Modifications (C71500)					10		10				10
	<i>SUB-ACTIVITY TOTAL</i>			687,090		144,921		118,049		40,600		158,649
	<b>ACTIVITY TOTAL</b>			<b>687,090</b>		<b>144,921</b>		<b>118,049</b>		<b>40,600</b>		<b>158,649</b>

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APPROPRIATION Missile Procurement, Army		ACTIVITY 04 Spares and repair parts	DOLLARS IN THOUSANDS									
LINE NO	ITEM NOMENCLATURE	ID	FY 2009		FY 2010		FY 2011		FY 2011 OCO		FY 2011 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	<i>SPARES AND REPAIR PARTS</i>											
17	SPARES AND REPAIR PARTS (CA0250)			25,850		22,269		19,569				19,569
	<i>SUB-ACTIVITY TOTAL</i>			<u>25,850</u>		<u>22,269</u>		<u>19,569</u>				<u>19,569</u>
	<b>ACTIVITY TOTAL</b>			<b>25,850</b>		<b>22,269</b>		<b>19,569</b>				<b>19,569</b>

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APPROPRIATION Missile Procurement, Army		ACTIVITY 05 Support equipment and facilities	DOLLARS IN THOUSANDS									
LINE NO	ITEM NOMENCLATURE	ID	FY 2009		FY 2010		FY 2011		FY 2011 OCO		FY 2011 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
<i>SUPPORT EQUIPMENT AND FACILITIES</i>												
18	AIR DEFENSE TARGETS (C93000)			6,423		4,175		3,613				3,613
19	ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)			10		1,174		1,208				1,208
20	PRODUCTION BASE SUPPORT (CA0100)			4,106		4,384		4,510				4,510
	<i>SUB-ACTIVITY TOTAL</i>			<u>10,539</u>		<u>9,733</u>		<u>9,331</u>				<u>9,331</u>
	<b>ACTIVITY TOTAL</b>			<b>10,539</b>		<b>9,733</b>		<b>9,331</b>				<b>9,331</b>
	<b>APPROPRIATION TOTAL</b>			<b>2,851,700</b>		<b>1,723,148</b>		<b>1,887,437</b>		<b>343,828</b>		<b>2,231,265</b>

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C93000	18	7	AIR DEFENSE TARGETS (C93000)
C64501	8	4	BCT Non Line of Sight Launch System - Increment 1 (C64501)
C64400	9	4	Guided MLRS Rocket (GMLRS) (C64400)
C71500	16	5	HELLFIRE Modifications (C71500)
C70000	4	4	HELLFIRE SYS SUMMARY (C70000)
C02901	11	4	High Mobility Artillery Rocket System (HIMARS) (C02901)
C67501	15	5	HIMARS MODIFICATIONS (C67501)
C61700	13	5	ITAS/TOW MODS (C61700)
CL2000	19	7	ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)
CC0007	5	4	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)
C81001	2	4	Less: Advance Procurement (PY)
C59300	6	4	Less: Advance Procurement (PY)
C67500	14	5	MLRS MODS (C67500)
C65405	10	4	MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)
C50700	12	5	PATRIOT MODS (C50700)
C49100	1	4	PATRIOT SYSTEM SUMMARY (C49100)
CA0100	20	7	PRODUCTION BASE SUPPORT (CA0100)
CA0250	17	6	SPARES AND REPAIR PARTS (CA0250)
C81001	2	4	Surface-Launched AMRAAM System Summary: (C81001)
C81001	3	4	Surface-Launched AMRAAM System Summary: (C81001)
C59300	6	4	TOW 2 SYSTEM SUMMARY (C59300)
C59300	7	4	TOW 2 SYSTEM SUMMARY (C59300)

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SSN	LINE	PAGE	NOMENCLATURE
C02901	11	4	High Mobility Artillery Rocket System (HIMARS) (C02901)
C49100	1	4	PATRIOT SYSTEM SUMMARY (C49100)
C50700	12	5	PATRIOT MODS (C50700)
C59300	6	4	TOW 2 SYSTEM SUMMARY (C59300)
C59300	6	4	Less: Advance Procurement (PY)
C59300	7	4	TOW 2 SYSTEM SUMMARY (C59300)
C61700	13	5	ITAS/TOW MODS (C61700)
C64400	9	4	Guided MLRS Rocket (GMLRS) (C64400)
C64501	8	4	BCT Non Line of Sight Launch System - Increment 1 (C64501)
C65405	10	4	MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)
C67500	14	5	MLRS MODS (C67500)
C67501	15	5	HIMARS MODIFICATIONS (C67501)
C70000	4	4	HELLFIRE SYS SUMMARY (C70000)
C71500	16	5	HELLFIRE Modifications (C71500)
C81001	2	4	Surface-Launched AMRAAM System Summary: (C81001)
C81001	2	4	Less: Advance Procurement (PY)
C81001	3	4	Surface-Launched AMRAAM System Summary: (C81001)
C93000	18	7	AIR DEFENSE TARGETS (C93000)
CA0100	20	7	PRODUCTION BASE SUPPORT (CA0100)
CA0250	17	6	SPARES AND REPAIR PARTS (CA0250)
CC0007	5	4	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)
CL2000	19	7	ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)

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002	C81001	Surface-Launched AMRAAM System Summary .....	8
003	C81001	Surface-Launched AMRAAM System Summary (Adv. Proc.).....	13
004	C70000	HELLFIRE SYS SUMMARY .....	16
005	CC0007	JAVELIN (AAWS-M) SYSTEM SUMMARY .....	23
006	C59300	TOW 2 SYSTEM SUMMARY .....	32
008	C64501	BCT Non Line of Sight Launch System - Increment 1 .....	42
009	C64400	Guided MLRS Rocket (GMLRS) .....	47
010	C65405	MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) .....	59
011	C02901	High Mobility Artillery Rocket System (HIMARS) .....	65
012	C50700	PATRIOT MODS .....	71
013	C61700	ITAS/TOW MODS .....	91
014	C67500	MLRS MODS .....	95
015	C67501	HIMARS MODIFICATIONS .....	101
016	C71500	HELLFIRE Modifications .....	109
017	CA0250	SPARES AND REPAIR PARTS .....	111
018	C93000	AIR DEFENSE TARGETS .....	112
019	CL2000	ITEMS LESS THAN \$5.0M (MISSILES) .....	115
020	CA0100	PRODUCTION BASE SUPPORT .....	117





**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 2 / Other missiles

P-1 Item Nomenclature  
Patriot System Summary (C49100)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

PE 0604865A, 0603869A, 0604869A, SSN C49200, C53000

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty	861	108	58	78						1105
Gross Cost	7633.6	510.6	341.3	480.2	2.2					8968.0
Less PY Adv Proc	123.3									123.3
Plus CY Adv Proc	123.3									123.3
Net Proc P1	7633.6	510.6	341.3	480.2	2.2					8968.0
Initial Spares										
Total Proc Cost	7633.6	510.6	341.3	480.2	2.2					8968.0
Flyaway U/C										
Weapon System Proc U/C	8.9	4.7	5.9	6.2						25.6

**Description:**

Patriot is an advanced Surface-to-Air guided missile system with a high probability of kill capable of operation in the presence of Electronic Countermeasures (ECM) and able to conduct multiple simultaneous engagements against high performance air breathing targets and ballistic missiles likely to be encountered by U.S. Forces. The system utilizes a multifunction Phased Array Radar, a digital computer controlling system function, a guidance system combining command and homing (track-via-missile) features, and provides the operator the ability to control operations. The system integrates with the U.S. Air Force and U.S. Navy in the overall air defense of theater operations. The Patriot Advanced Capability 3 (PAC-3) program is a result of a series of integrated, phased system improvements in combination with the PAC-3 missile, which uses hit-to-kill technology. Radar enhancements, communications upgrades, and increased command, control, and computer capability, will increase Patriot's effectiveness, survivability, flexibility of defense design, footprint, and detection of smaller low radar cross section targets.

**Justification:**

FY2011 base procurement dollars in the amount \$480.247 million supports the procurement of 78 PAC-3 missiles and 12 Enhanced Launcher Electronic Systems (ELES).

The PB12 is expected to adjust procurement plans to reflect pending Army decisions.

<b>Exhibit P-40, Budget Item Justification Sheet</b>	Date: February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Item Nomenclature Patriot PAC-3 (C49200)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: PE 0604865A, PE 0604869A, SSN C49100
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	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty	861	108	58	78						1105
Gross Cost	7633.6	510.6	341.3	480.2	2.2					8968.0
Less PY Adv Proc	123.3									123.3
Plus CY Adv Proc	123.3									123.3
Net Proc P1	7633.6	510.6	341.3	480.2	2.2					8968.0
Initial Spares										
Total Proc Cost	7633.6	510.6	341.3	480.2	2.2					8968.0
Flyaway U/C										
Weapon System Proc U/C	8.9	4.7	5.9	6.2						25.6

**Description:**  
Patriot is an advanced Surface-to-Air guided missile system with a high probability of kill capable of operation in the presence of Electronic Countermeasures (ECM) and able to conduct multiple simultaneous engagements against high performance air breathing targets and ballistic missiles likely to be encountered by U.S. Forces. The system utilizes a multifunction Phased Array Radar, a digital computer controlling system function, a guidance system combining command and homing (track-via-missile) features, and provides the operator the ability to control operations. The system integrates with the U.S. Air Force and U.S. Navy in the overall air defense of theater operations. The Patriot Advanced Capability 3 (PAC-3) program is a result of a series of integrated, phased system improvements in combination with the PAC-3 missile which, uses hit-to-kill technology. Radar enhancements, communications upgrades, and increased command, control, and computer capability, will increase Patriot's effectiveness, survivability, flexibility of defense design, footprint, and detection of smaller low radar cross section targets.

**Justification:**  
FY2011 base procurement dollars in the amount of \$480.247 million supports the procurement of 78 PAC-3 missiles and 12 Enhanced Launcher Electronic Systems (ELES).  
The PB 12 is expected to adjust procurement plans to reflect pending Army decisions.

Exhibit P-5, Weapon MSLS Cost Analysis	Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Line Item Nomenclature: PATRIOT PAC-3 (C49200)			Weapon System Type:			Date: February 2010		
MSLS Cost Elements	ID	FY 09			FY 10			FY 11		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
<b>Missile Hardware - Recurring</b>										
Missile Hardware		333030	108	3084	201943	58	3482	245611	78	3149
Field Surveillance		32724			6025			18264		
PAC-3 Missile Support Center (P3MSC)								12050		
Obsolescence		32940			7558			24200		
Tooling/Maintenance		1400								
<b>SUBTOTAL</b>		<b>400094</b>			<b>215526</b>			<b>300125</b>		
<b>Ground Support Equipment</b>										
Enhanced Launcher Electronic System					25060	5	5012	51812	12	4317
Electric Power Plants		14490	8	1811						
<b>SUBTOTAL</b>		<b>14490</b>			<b>25060</b>			<b>51812</b>		
<b>Other</b>										
Limited User Testing								25000		
<b>SUBTOTAL</b>								<b>25000</b>		
<b>Support Cost</b>										
Contractor Engineering		38442			42373			43312		
Government/Software Engineering		20614			20903			21500		
Sys Engrg/Proj Mgmt (SEPM)		14421			14583			14998		
Integrated Logistics Support		13022			13223			13600		
Depot Maint Plant Equipment (DMPE)		1022			1071			1100		
Fielding		8471			8557			8800		
<b>SUBTOTAL</b>		<b>95992</b>			<b>100710</b>			<b>103310</b>		
<b>Total:</b>		<b>510576</b>			<b>341296</b>			<b>480247</b>		

<b>Exhibit P-5a, Budget Procurement History and Planning</b>	Date: February 2010
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Appropriation/Budget Activity/Serial No: Missile Procurement, Army/ 2/ Other missiles	Weapon System Type:	P-1 Line Item Nomenclature: PATRIOT PAC-3 (C49200)
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WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Missile Hardware</b>										
FY 2008	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 07	Oct 09	108	3084	NA		Mar-06
FY 2009	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 08	Aug 10	108	3084	NA		Apr-08
FY 2010	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 09	Aug 11	58	3482	NA		Mar-09
FY 2011	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 10	Aug 12	78	3149	NA		Mar 10

REMARKS: LMMFC - Lockheed Martin Missiles and Fire Control  
 SS - Sole Source  
 FFP - Firm Fixed Price  
 AMCOM - US Army Aviation and Missile Command

FY 08 / 09 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE PATRIOT PAC-3 (C49200)										Date: February 2010									
COST ELEMENTS						Fiscal Year 08										Fiscal Year 09										Later			
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 08										Calendar Year 09													
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
Missile Hardware																													
1	FY 08	A	108	0	108			A																				108	
1	FY 08	FMS	24	0	24			A																				24	
1	FY 09	A	108	0	108																					A		108	
1	FY 09	FMS	64	0	64																					A		64	
1	FY 10	A	59	1	58																							58	
1	FY 10	FMS	96	0	96																							96	
1	FY 10	FMS	96	0	96																							96	
1	FY 11	A	78	0	78																							78	
1	FY 11	FMS	128	0	128																							128	
1	FY 11	FMS	96	0	96																							96	
Total					856																							856	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR 1	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	LMMFC, Dallas, TX	6	20	30		1	Initial	19	2	23	25	FY08=Germany FMS Case (24 PAC-3 Missiles) FY09=United Arab Emirates (UAE) FMS Case (64 PAC-3 Missiles)
							Reorder	6	2	20	22	FY10 96=UAE FMS Case ( 96 Pac-3 Missiles) FY10 96=Taiwan FMS Case (96 PAC-3 Missiles)
							Initial					FY11 128=UAE FMS Case (128 PAC-3 Missiles)
							Reorder					FY11 96=Taiwan FMS Case (96 PAC-3 Missiles)
							Initial					
							Reorder					
							Initial					
							Reorder					

FY 10 / 11 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE PATRIOT PAC-3 (C49200)										Date: February 2010									
COST ELEMENTS						Fiscal Year 10										Fiscal Year 11													
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 10										Calendar Year 11										Later			
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
Missile Hardware																													
1	FY 08	A	108	0	108	14	12	12	12	12	12	8	8	8	10													0	
1	FY 08	FMS	24	0	24								8	8	8													0	
1	FY 09	A	108	0	108										10	8	8	8	8	8	8	12	8	12	8	10		0	
1	FY 09	FMS	64	0	64																8	12	16	12	16		0		
1	FY 10	A	59	1	58			A																	4	4	50		
1	FY 10	FMS	96	0	96			A																	8	8	80		
1	FY 10	FMS	96	0	96			A																	8	8	80		
1	FY 11	A	78	0	78														A								78		
1	FY 11	FMS	128	0	128														A								128		
1	FY 11	FMS	96	0	96														A								96		
Total					856	14	12	12	12	12	8	16	16	18	10	8	8	8	8	8	8	20	20	28	20	26	20	20	512
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	LMMFC, Dallas, TX	6	20	30		1	Initial	19	2	23	25	FY08=Germany FMS Case (24 PAC-3 Missiles) FY09=United Arab Emirates (UAE) FMS Case (64 PAC-3 Missiles)
							Reorder	6	2	20	22	FY10 96=UAE FMS Case ( 96 Pac-3 Missiles) FY10 96=Taiwan FMS Case (96 PAC-3 Missiles)
							Initial					FY11 128=UAE FMS Case (128 PAC-3 Missiles)
							Reorder					FY11 96=Taiwan FMS Case (96 PAC-3 Missiles)
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

FY 12 / 13 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE PATRIOT PAC-3 (C49200)										Date: February 2010								
COST ELEMENTS						Fiscal Year 12										Fiscal Year 13										Later		
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 12										Calendar Year 13												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL
Missile Hardware																												
1	FY 08	A	108	108																								0
1	FY 08	FMS	24	24																								0
1	FY 09	A	108	108																								0
1	FY 09	FMS	64	64																								0
1	FY 10	A	59	9	50	6	8	4	4	4	6	8	4	4	2													0
1	FY 10	FMS	96	16	80	8	8	8	8	8	8	8	8	8	8													0
1	FY 10	FMS	96	16	80	8	8	4	4	8	8	8	8	12	12													0
1	FY 11	A	78	0	78											6	8	4	8	8	4	8	8	4	8	8	4	0
1	FY 11	FMS	128	0	128											12	12	12	12	8	12	12	12	12	8	8	8	0
1	FY 11	FMS	96	0	96											8	8	8	8	4	4	8	8	8	8	12	12	0
Total					512	22	24	16	16	20	22	24	20	24	22	26	28	24	28	20	20	28	28	24	24	28	24	
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR 1	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	LMMFC, Dallas, TX	6	20	30		1	Initial	19	2	23	25	FY08=Germany FMS Case (24 PAC-3 Missiles)
							Reorder	6	2	20	22	FY09=United Arab Emirates (UAE) FMS Case (64 PAC-3 Missiles)
							Initial					FY10 96=UAE FMS Case ( 96 Pac-3 Missiles)
							Reorder					FY10 96=Taiwan FMS Case (96 PAC-3 Missiles)
							Initial					FY11 128=UAE FMS Case (128 PAC-3 Missiles)
							Reorder					Missiles)
							Initial					FY11 96=Taiwan FMS Case (96 PAC-3 Missiles)
							Reorder					

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 2 / Other missiles

P-1 Item Nomenclature  
Surface-Launched AMRAAM System Summary: (C81001)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

PE 0604802A, Project S23; Adv Proc C81001

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost	30.3		40.3	116.7	83.3	273.3	281.1	264.3		1089.4
Less PY Adv Proc			40.3							40.3
Plus CY Adv Proc		40.3								40.3
Net Proc P1	30.3	40.3		116.7	83.3	273.3	281.1	264.3		1089.4
Initial Spares										
Total Proc Cost	30.3	40.3		116.7	83.3	273.3	281.1	264.3		1089.4
Flyaway U/C										
Weapon System Proc U/C										

**Description:**

The Surface Launched Advanced Medium Range Air-To-Air Missile (SLAMRAAM) is a critical component of the Army's future Integrated Air & Missile Defense (IAMD) system. SLAMRAAM consists of launcher platforms employing the proven AIM-120-C7 Advanced Medium Range Air-to-Air Missile; Integrated Fire Control Station (IFCS) command, control, and communications platforms; and Improved Sentinel Radars. SLAMRAAM is a day or night, adverse weather, non-line-of-sight system that counters cruise missiles (CM), unmanned aerial vehicle (UAV), fixed wing, and rotary wing threats. SLAMRAAM is mobile and able to operate in a variety of combat situations to protect maneuver forces and strategic-level critical assets. SLAMRAAM represents a substantial increase in performance over current short range air defense systems.

**Justification:**

FY11 Base procurement dollars in the amount of \$116.732 million supports 6 improved platforms for enhanced crew protection, 9 Integrated Fire Control Stations (IFCS), and associated recurring support costs.

NOTE: FY11 funding procures all required IFCS systems so the Army does not have to incur production overhead cost over multiple years. IFCS is an interim solution. IFCS will be replaced by the Integrated Battle Command System (IBCS) in FY16.



<b>Exhibit P-40, Budget Item Justification Sheet</b>	Date: February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Item Nomenclature Surface-Launched AMRAAM Launcher (C81002)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty				6	9	48	49	45		157
Gross Cost			40.3	116.7	83.3	233.8	241.7	248.9		964.7
Less PY Adv Proc			40.3							40.3
Plus CY Adv Proc		40.3								40.3
Net Proc P1		40.3		116.7	83.3	233.8	241.7	248.9		964.7
Initial Spares										
Total Proc Cost		40.3		116.7	83.3	233.8	241.7	248.9		964.7
Flyaway U/C										
Weapon System Proc U/C				19.5	9.3	4.9	4.9	5.5		44.0

**Description:**  
The Surface Launched Advanced Medium Range Air-To-Air Missile (SLAMRAAM) is a critical component of the Army's future Integrated Air & Missile Defense (IAMD) system. SLAMRAAM consists of launcher platforms employing the proven AIM-120-C7 Advanced Medium Range Air-to-Air Missile; Integrated Fire Control Station (IFCS) command, control, and communications platforms; and Improved Sentinel Radars. SLAMRAAM is a day or night, adverse weather, non-line-of-sight system that counters cruise missiles (CM), unmanned aerial vehicle (UAV), fixed wing, and rotary wing threats. SLAMRAAM is mobile and able to operate in a variety of combat situations to protect maneuver forces and strategic-level critical assets. SLAMRAAM represents a substantial increase in performance over current short range air defense systems.

**Justification:**  
C81002 Launcher Procures:  
FY11 procures 6 improved platforms for enhanced crew protection, 9 Integrated Fire Control Stations (IFCS), and associated recurring support costs.

NOTE: FY11 funding procures all required IFCS systems so the Army does not have to incur production overhead cost over multiple years. IFCS is an interim solution. IFCS will be replaced by the Integrated Battle Command System (IBCS) in FY16.

Exhibit P-5, Weapon MSLS Cost Analysis	Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Line Item Nomenclature: Surface-Launched AMRAAM Launcher (C81002)			Weapon System Type:	Date: February 2010				
MSLS Cost Elements	ID	FY 09			FY 10			FY 11		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
<b>Non-Recurring Engineering</b>										
IFCS NRE										
Launcher NRE										
Production Base Support										
IFCS Refurbishment										
Launcher Refurbishment										
<b>Total Non Recurring Engineering</b>										
<b>11952</b>										
<b>Recurring Production Hardware</b>										
Launcher Manufacturing										
IFCS Manufacturing										
Recurring Engineering										
Sustaining Tooling										
Quality Control										
Engineering Change Proposals										
Government Furnished Equipment										
<b>Total Hardware Cost</b>										
<b>78000</b>										
<b>Weapons Support Cost</b>										
System Test and Evaluation										
System Engineering/Program Management										
Training Equipment										
Data										
Software, Contractor Log Spt, Engr Svcs										
Support Equipment										
Fielding/Spares										
<b>Total Weapons Support Cost</b>										
<b>26780</b>										
Less PY Advanced Procurement										
Plus CY Advanced Procurement										
<b>Total:</b>										
<b>40349</b>										
<b>40349</b>										
<b>116732</b>										

<b>Exhibit P-5a, Budget Procurement History and Planning</b>	Date: February 2010
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Appropriation/Budget Activity/Serial No: Missile Procurement, Army/ 2/ Other missiles	Weapon System Type:	P-1 Line Item Nomenclature: Surface-Launched AMRAAM Launcher (C81002)								
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Launcher Manufacturing</b> FY 2011	Raytheon Tewksbury, MA	SS/FPI*	AMCOM***	Jan 11	Jun 12	6	6000			Jun-11

REMARKS: \*SS/FPI - Sole Source/Fixed Price Incentive  
 \*\*SS/FFP - Sole Source/Firm Fixed Price  
 \*\*\*AMCOM - Aviation and Missile Command

Note: Low Rate Initial Production (LRIP) produces Launchers and IFCS. Additionally LRIP assets will be utilized to support Initial Operational Test & Evaluation (IOTE). Funds have been set aside to refurbish those LRIP launchers and LRIP IFCS used in support of IOTE.

The Non-recurring costs on the P-5 include the test equipment, special tooling, production line set-up, fab assembly and installation of tools.



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 2 / Other missiles

P-1 Item Nomenclature  
Surface-Launched AMRAAM System Summary: (C81001)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

PE 0604802A, Project S23, Advance Procurement

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost			40.3							40.3
Less PY Adv Proc			40.3							40.3
Plus CY Adv Proc		40.3								40.3
Net Proc P1		40.3								40.3
Initial Spares										
Total Proc Cost		40.3								40.3
Flyaway U/C										
Weapon System Proc U/C										

**Description:**

The Surface Launched Advanced Medium Range Air-To-Air Missile (SLAMRAAM) is a critical component of the Army's future Integrated Air & Missile Defense (IAMD) system. SLAMRAAM consists of launcher platforms employing the proven AIM-120-C7 Advanced Medium Range Air-to-Air Missile; Integrated Fire Control Station (IFCS) command, control, and communications platforms; and Improved Sentinel Radars. SLAMRAAM is a day or night, adverse weather, non-line-of-sight system that counters cruise missiles (CM), unmanned aerial vehicle (UAV), fixed wing, and rotary wing threats. SLAMRAAM is mobile and able to operate in a variety of combat situations to protect maneuver forces and strategic-level critical assets. SLAMRAAM represents a substantial increase in performance over current short-range air defense systems.

**Justification:**

FY09 procures long lead items for nine IFCS and Nonrecurring Engineering (NRE). This funding represents advance procurement for production.

IFCS is an interim solution awaiting IBCS. The Army's intent is to purchase the minimum necessary to fill the gap between initial SLAMRAAM fielding and the introduction of IBCS. Program procures all required IFCS systems in FY11 along with the six launchers, so the Army does not have to incur production overhead cost over multiple years.

<b>Advance Procurement Requirements Analysis-Funding (P-10A)</b>				First System Award Date:	First System Completion Date:	Date: February 2010						
Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 2 / Other missiles					P-1 Line Item Nomenclature / Weapon System: Surface-Launched AMRAAM System Summary:							
(\$ in Millions)												
	PLT (mos)	When Rqd (mos)	Pr Yrs	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	To Comp	Total
End Item Quantity												
GFE IFCS	18	12		6.4								6.4
IFCS Equipment	18	12		4.1								4.1
iFCS Factory Start Up/Tooling/TE/Mfg Data Package	18	12		16.5								16.5
IFCS Electronics	18	12		13.3								13.3
<b>Total Advance Procurement</b>			<b>0.0</b>	<b>40.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>40.3</b>
FY09 procures long lead items for nine IFCS and Nonrecurring Engineering (NRE).												

<b>Advance Procurement Requirements Analysis-Funding (P-10B)</b>	Date: February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Line Item Nomenclature / Weapon System: Surface-Launched AMRAAM System Summary:
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	(\$ in Millions)					
	PLT (mos)	Quantity Per Assembly	Unit Cost	2011		
				Qty	Contract Forecast Date	Total Cost Request
GFE IFCS	18	1	0.7			
IFCS Equipment	18	1	0.5			
iFCS Factory Start Up/Tooling/TE/Mfg Data Package	18	1	1.8			
IFCS Electronics	18	1	1.5			
<b>Total Advance Procurement</b>						

FY09 procures long lead items for nine IFCS and Nonrecurring Engineering (NRE).

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 2 / Other missiles

P-1 Item Nomenclature  
HELLFIRE SYS SUMMARY (C70000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

PE 0203802A, Projects 781 and 785; C71500

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty	53650	2670	2165	2106						60591
Gross Cost	2485.9	253.1	227.1	222.3			90.2	87.4		3366.2
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	2485.9	253.1	227.1	222.3			90.2	87.4		3366.2
Initial Spares	5.7									5.7
Total Proc Cost	2491.6	253.1	227.1	222.3			90.2	87.4		3371.9
Flyaway U/C										
Weapon System Proc U/C	0.1	0.1		0.1						0.3

**Description:**

The Laser HELLFIRE 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 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. HELLFIRE procurement funding supports the entire HELLFIRE system to include resolution of obsolescence, safety, reliability, weapon integration activities, engineering changes and production issues. As the result of requests from commanders in the field, engineering changes are being made to the Hellfire missile to regain warhead lethality and increase the engagement envelope. This missile will be compatible on all current force Unmanned Aircraft Systems (UAS) and rotary wing platforms and has been designated the Hellfire AGM-114R (Romeo) missile. The AGM-114R HELLFIRE missile will be the single variant that replaces all other HELLFIRE legacy missile configurations (K/N/M/P).

**Justification:**

FY2011 Base procurement dollars in the amount of \$31.881 million supports the procurement of 240 HELLFIRE missiles.

FY2011 OCO procurement dollars in the amount of \$190.460 million supports the procurement of 1866 HELLFIRE missiles.

FY2011 engineering support includes funding for program support costs and implementation costs for the addition of the Health Monitoring Unit (HMU) and Height of Burst (HOB) functionality into the HELLFIRE R model missile system and also supports the implementation of other producibility changes that address obsolescence issues.



<b>Exhibit P-40, Budget Item Justification Sheet</b>	Date: February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Item Nomenclature LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: PE 0203802, Projects 781; C71500
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	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty	53650	2670	2165	2106						60591
Gross Cost	2485.9	253.1	227.1	222.3			90.2	87.4		3366.2
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	2485.9	253.1	227.1	222.3			90.2	87.4		3366.2
Initial Spares	5.7									5.7
Total Proc Cost	2491.6	253.1	227.1	222.3			90.2	87.4		3371.9
Flyaway U/C										
Weapon System Proc U/C	0.0	0.1	0.1	0.1						0.4

**Description:**  
The Laser HELLFIRE 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 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. HELLFIRE procurement funding supports the entire HELLFIRE system to include resolution of obsolescence, safety, reliability, weapon integration activities, engineering changes and production issues. As the result of requests from commanders in the field, engineering changes are being made to the Hellfire missile to regain warhead lethality and increase the engagement envelope. This missile will be compatible on all current force Unmanned Aircraft Systems (UAS) and rotary wing platforms and has been designated the Hellfire AGM-114R (Romeo) missile. The AGM-114R HELLFIRE missile will be the single variant that replaces all other HELLFIRE legacy missile configurations (K/N/M/P).

**Justification:**  
FY2011 Base procurement dollars in the amount of \$31.881 million supports the first full rate procurement of 240 AGM-114R HELLFIRE missiles.  
FY2011 OCO procurement dollars in the amount of \$190.460 million supports the procurement of 1866 AGM-114R HELLFIRE missiles.

Exhibit P-5, Weapon MSLS Cost Analysis	Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Line Item Nomenclature: LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)			Weapon System Type:	Date: February 2010				
MSLS Cost Elements	ID	FY 09			FY 10			FY 11		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
<b>Flyaway Costs</b>										
<b>Hardware Costs - Recurring</b>										
All-up Rounds		168622	2670	63	176140	2165	81	176052	2106	84
Gov Furn Eq (GFE) Explosives										
Gov Furn Eq (GFE) Containers										
Missile Conversions		7182								
Engineering Change Orders (ECO)										
Engineering Services		10182			3124			3492		
Fielding		5894			3253			3259		
Acceptance Testing		1101			574			575		
<b>SUBTOTAL</b>		<b>192981</b>			<b>183091</b>			<b>183378</b>		
<b>Engineering Support</b>										
Project Mgt Admin		17516			11978			10151		
Production Engineering Support		30768			28202			28812		
<b>SUBTOTAL</b>		<b>48284</b>			<b>40180</b>			<b>38963</b>		
<b>Non-Recurring</b>										
Disposal of Tool/test Equipment										
Initial Production Facilitization (IPF)										
Rate tooling/Test Equipment		11859			3830					
Obsolescence										
<b>SUBTOTAL</b>		<b>11859</b>			<b>3830</b>					
<b>Peculiar Support Equipment</b>										
Environmental Protections										
Subtotal										
<b>Gross P-1 End Item</b>		<b>253124</b>			<b>227101</b>			<b>222341</b>		
Less: Prior Year Adv Proc										
<b>Net P-1 Full Funding Cost</b>										
Plus: P-1 Cy Adv Proc										
Other Non P-1 Costs										
Initial Spares										
<b>Total:</b>		<b>253124</b>			<b>227101</b>			<b>222341</b>		

<b>Exhibit P-5a, Budget Procurement History and Planning</b>	Date: February 2010
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Appropriation/Budget Activity/Serial No: Missile Procurement, Army/ 2/ Other missiles	Weapon System Type:	P-1 Line Item Nomenclature: LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)
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WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>All-up Rounds</b>										
FY 2009	HELLFIRE Sys Limited Liability Orlando, FL	FFP	AMCOM, Redstone Arsenal, AL	Mar 09	Aug 11	2670	63	Yes		Oct 07
FY 2010	HELLFIRE Sys Limited Liability Orlando, FL	FFP	AMCOM, Redstone Arsenal, AL	May 10	Aug 12	2165	81	Yes		Oct 07
FY 2011	HELLFIRE Sys Limited Liability Orlando, FL	FFP	AMCOM, Redstone Arsenal, AL	May 11	May 13	2106	84	Yes		Oct 07

REMARKS: Firm Fixed Price (FFP)  
The FY2011 production unit cost and quantities are based on all services base and OCO funding requirements known at this time.

FY 09 / 10 BUDGET PRODUCTION SCHEDULE						P-1 ITEM NOMENCLATURE LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)												Date: February 2010												
COST ELEMENTS						Fiscal Year 09												Fiscal Year 10												
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 09												Calendar Year 10												Later
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
All-up Rounds																														
1	FY 09	A	2670	0	2670							A																2670		
1	FY 09	AF	1422	0	1422							A																1422		
1	FY 09	NA	1556	0	1556							A																1556		
1	FY 09	FMS	420	0	420									A														420		
1	FY 10	A	2165	0	2165																					A		2165		
1	FY 10	AF	1028	0	1028																					A		1028		
1	FY 10	NA	1094	0	1094																					A		1094		
1	FY 11	A	2106	0	2106																							2106		
1	FY 11	AF	927	0	927																							927		
1	FY 11	NA	1108	0	1108																							1108		
Total																												14496		
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	HELLFIRE Sys Limited Liability, Orlando, FL	64	340	600	9	1	Initial	6	3	24	27	
							Reorder	5	3	24	27	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

FY 11 / 12 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)										Date: February 2010									
COST ELEMENTS						Fiscal Year 11										Fiscal Year 12													
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 11										Calendar Year 12										Later			
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
All-up Rounds																													
1	FY 09	A	2670	0	2670										10	205	255	208	175	157	60	360	340	320	342	238		0	
1	FY 09	AF	1422	0	1422										10	175	200	191	156	55	77	90	110	109	80	169		0	
1	FY 09	NA	1556	0	1556										10	124	73	129	197	316	392	77	77	78	56	27		0	
1	FY 09	FMS	420	0	420																		10	10	30	80	50	70	170
1	FY 10	A	2165	0	2165																						230	230	1705
1	FY 10	AF	1028	0	1028																						121	124	783
1	FY 10	NA	1094	0	1094																						103	78	913
1	FY 11	A	2106	0	2106																								2106
1	FY 11	AF	927	0	927																								927
1	FY 11	NA	1108	0	1108																								1108
Total					14496										30	504	528	528	528	528	529	527	537	517	508	514	504	502	7712
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	HELLFIRE Sys Limited Liability, Orlando, FL	64	340	600	9	1	Initial	6	3	24	27	
							Reorder	5	3	24	27	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

**FY 13 / 14 BUDGET PRODUCTION SCHEDULE**

P-1 ITEM NOMENCLATURE  
LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)

Date:  
February 2010

COST ELEMENTS						Fiscal Year 13												Fiscal Year 14												Later
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 13												Calendar Year 14												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
All-up Rounds																														
1	FY 09	A	2670	2670																								0		
1	FY 09	AF	1422	1422																								0		
1	FY 09	NA	1556	1556																								0		
1	FY 09	FMS	420	250	170	80	90																					0		
1	FY 10	A	2165	460	1705	226	202	226	257	257	269	268																0		
1	FY 10	AF	1028	245	783	102	104	129	117	118	88	125																0		
1	FY 10	NA	1094	181	913	100	96	139	152	151	159	116																0		
1	FY 11	A	2106	0	2106								216	201	196	191	186	181	170	165	160	155	150	135				0		
1	FY 11	AF	927	0	927								117	102	97	92	87	82	72	67	62	58	53	38				0		
1	FY 11	NA	1108	0	1108								132	117	112	107	102	97	87	83	78	73	68	52				0		
Total						7712	508	492	494	526	526	516	509	465	420	405	390	375	360	329	315	300	286	271	225					
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	HELLFIRE Sys Limited Liability, Orlando, FL	64	340	600	9	1	Initial	6	3	24	27	
							Reorder	5	3	24	27	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 2 / Other missiles  
 P-1 Item Nomenclature JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)

Program Elements for Code B Items: Code: Other Related Program Elements: CC1000

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty	22693	1320	1265	715	710	495	520	550		28268
Gross Cost	3491.2	367.9	258.6	163.9	136.1	108.9	114.7	120.8		4762.0
Less PY Adv Proc	100.6									100.6
Plus CY Adv Proc	100.6									100.6
Net Proc P1	3491.2	367.9	258.6	163.9	136.1	108.9	114.7	120.8		4762.0
Initial Spares	22.6									22.6
Total Proc Cost	3513.7	367.9	258.6	163.9	136.1	108.9	114.7	120.8		4784.6
Flyaway U/C	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2		1.7
Weapon System Proc U/C	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2		1.7

**Description:**  
 Javelin provides the US Army and 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 full spectrum 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. The performance improvements in current production Javelin Block I CLUs are: increased target identification range, increased surveillance time with new battery and software management of the on time, and external RS-170 interface for video output. The performance improvements in current production Javelin Block I missiles are: increased probability of hit/kill at 2500m, improved warhead lethality, and reduced time of flight. 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.

**Justification:**  
 FY 11 Base procurement dollars in the amount of \$163.929 million supports the procurement of 715 Rounds and 386 CLU Retrofits.

The Army intends to buy to budget in order to leverage off other procurements for any price advantage created through contract negotiation, other service procurement, and/or foreign military sales (FMS).

"Proc Qty" above represents the Rounds only, but the dollars include the cost of the Rounds, CLUs, and training devices.  
 Flyaway Unit Cost is calculated by dividing the dollars for the Rounds and CLUs by the Rounds quantity.  
 Weapon System Unit Cost is calculated by dividing the dollars for the Rounds, CLUs, and training devices by the Rounds quantity.  
 Both unit cost calculations exclude the initial spares cost.

Exhibit P-5, Weapon MSLS Cost Analysis	Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Line Item Nomenclature: JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)			Weapon System Type:			Date: February 2010		
MSLS Cost Elements	ID	FY 09			FY 10			FY 11		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
<b>Missile Hardware - Recurring</b>										
All Up Round		166816	1320	126	163627	1265	129	102006	715	143
Engineering Services		7265			14747			15001		
Engineering Change Orders		167			164			102		
Acceptance Testing		2158			1616			902		
Fielding		29			28			16		
<b>Subtotal Missile Hardware</b>		<b>176435</b>			<b>180182</b>			<b>118027</b>		
<b>Procurement Support</b>										
Project Management		10019			10009			10294		
Production Engineering		6679			6672			6862		
Publications/Technical Data		62			63			64		
<b>Subtotal Procurement Support</b>		<b>16760</b>			<b>16744</b>			<b>17220</b>		
<b>Command &amp; Launch Hardware</b>										
Command Launch Unit		130622	920	142						
Engineering Services		7265								
Engineering Change Orders		127								
Fielding		1683								
CLU Retrofits					35502	486	73	28682	386	74
<b>Subtotal C&amp;L Hardware</b>		<b>139697</b>			<b>35502</b>			<b>28682</b>		
<b>Training Devices</b>										
Field Tactical Trainer-Student Station		26520	270	98	18938	183	103			
Basic Skills Trainer		3571	40	89	4802	53	91			
Missile Simulation Round		1700	1128	2						
Fielding		3205			2385					
<b>Subtotal Training Devices</b>		<b>34996</b>			<b>26125</b>					
<b>Gross P-1 End Cost</b>		<b>367888</b>			<b>258553</b>			<b>163929</b>		
Less: Prior Year Adv Proc										
<b>Net P-1 Full Funding Cost</b>										
Plus P-1 CY Adv. Proc.										
Initial Spares										
<b>Total:</b>		<b>367888</b>			<b>258553</b>			<b>163929</b>		



<b>Exhibit P-5a, Budget Procurement History and Planning</b>	Date: February 2010
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Appropriation/Budget Activity/Serial No: Missile Procurement, Army/ 2/ Other missiles	Weapon System Type:	P-1 Line Item Nomenclature: JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)
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WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>All Up Round</b>										
FY 2006	JV/All Up Round Tucson, AZ/Orlando, FL	SS/FP	AMCOM, Redstone Arsenal, AL	Aug 06	Nov 08	199	126	Yes		
FY 2007	JV/All Up Round Tucson, AZ/Orlando, FL	SS/FP	AMCOM, Redstone Arsenal, AL	Jul 07	Apr 09	250	133	Yes		
FY 2008	JV/All Up Round Tucson, AZ/Orlando, FL	SS/FP	AMCOM, Redstone Arsenal, AL	May 08	Jan 11	1320	111	Yes		
FY 2009	JV/All Up Round Tucson, AZ/Orlando, FL	SS/FP	AMCOM, Redstone Arsenal, AL	Jun 09	Jun 11	1320	126	Yes		
FY 2010	JV/All Up Round Tucson, AZ/Orlando, FL	SS/FP	AMCOM, Redstone Arsenal, AL	Feb 10	Feb 12	1265	129	Yes		
FY 2011	JV/All Up Round Tucson, AZ/Orlando, FL	SS/FP	AMCOM, Redstone Arsenal, AL	Jan 11	Jan 13	715	143	Yes		
<b>Command Launch Unit</b>										
FY 2007	JV/CLU Tucson,AZ/Orlando,FL	SS/FP	AMCOM, Redstone Arsenal, AL	Jul 07	Sep 08	859	123	Yes		
FY 2008	JV/CLU Tucson,AZ/Orlando,FL	SS/FP	AMCOM, Redstone Arsenal, AL	May 08	Mar 10	604	140	Yes		
FY 2009	JV/CLU Tucson,AZ/Orlando,FL	SS/FP	AMCOM, Redstone Arsenal, AL	Jun 09	May 11	920	142	Yes		

REMARKS: Joint Venture (JV), Sole Source/Fixed Price (SS/FP), Aviation and Missile Command (AMCOM)  
Unit costs are dependent on the quantity procured at one time.

**FY 09 / 10 BUDGET PRODUCTION SCHEDULE**

P-1 ITEM NOMENCLATURE  
JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)

Date:  
February 2010

COST ELEMENTS						Fiscal Year 09										Fiscal Year 10										Later					
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 09										Calendar Year 10															
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP	
All Up Round																															
1	FY 06	A	199	0	199		110	89																				0			
1	FY 07	A	250	0	250							110	110	30														0			
1	FY 07	FMS	160	0	160									160														0			
1	FY 08	A	1320	0	1320																							1320			
1	FY 08	MC	75	0	75																							75			
1	FY 08	FMS	828	0	828																					110	110	110	110	110	278
1	FY 09	A	1320	0	1320									A														1320			
1	FY 09	MC	230	0	230															A								230			
1	FY 09	FMS	109	0	109															A								109			
1	FY 10	A	1265	0	1265																					A		1265			
1	FY 11	A	715	0	715																							715			
Command Launch Unit																															
2	FY 07	A	859	66	793	75	77	70	70	72	72	72	72	72	71	70														0	
2	FY 07	MC	38	0	38															38										0	
2	FY 08	A	604	0	604																				60	60	60	60	60	60	184
2	FY 08	FMS	112	0	112																									112	
2	FY 09	A	920	0	920									A															920		
2	FY 09	FMS	20	0	20															A										20	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
		1	2	3			4	5				
1	JV/All Up Round, Tucson, AZ/Orlando, FL	110	540	670		1	Initial	11	3	22	25	
							Reorder	1	1	22	23	
2	JV/CLU, Tucson,AZ/Orlando,FL	10	70	80		2	Initial	11	3	21	24	
							Reorder	1	1	21	22	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					



COST ELEMENTS						Fiscal Year 11												Fiscal Year 12												Later
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 11												Calendar Year 12												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

All Up Round																																
1	FY 06	A	199	199																												0
1	FY 07	A	250	250																												0
1	FY 07	FMS	160	160																												0
1	FY 08	A	1320	0	1320				110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	0
1	FY 08	MC	75	0	75									75																		0
1	FY 08	FMS	828	550	278	110	110	58																								0
1	FY 09	A	1320	0	1320								110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	0	
1	FY 09	MC	230	0	230											19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	21	0
1	FY 09	FMS	109	0	109											9	9	9	9	9	9	9	9	9	9	9	9	9	9	10	0	
1	FY 10	A	1265	0	1265																					105	105	105	105	105	106	424
1	FY 11	A	715	0	715				A																						715	

Command Launch Unit																																
2	FY 07	A	859	859																												0
2	FY 07	MC	38	38																												0
2	FY 08	A	604	420	184	60	12		60	52																						0
2	FY 08	FMS	112	0	112		48	64																								0
2	FY 09	A	920	0	920								79	79	79	79	78	78	78	78	78	78	78	78	78	78	78	78	78	58	0	
2	FY 09	FMS	20	0	20																											0
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS		
		MIN	1-8-5	MAX			1	Initial				Prior 1 Oct	After 1 Oct
1	JV/All Up Round, Tucson, AZ/Orlando, FL	110	540	670		1	Initial	11	3	22	25		
							Reorder	1	1	22	23		
2	JV/CLU, Tucson,AZ/Orlando,FL	10	70	80		2	Initial	11	3	21	24		
							Reorder	1	1	21	22		
							Initial						
							Reorder						
							Initial						
							Reorder						
							Initial						
							Reorder						



FY 13 / 14 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)										Date: February 2010									
COST ELEMENTS					Fiscal Year 13										Fiscal Year 14														
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 13										Calendar Year 14										Later			
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
All Up Round																													
1	FY 06	A	199	199																							0		
1	FY 07	A	250	250																							0		
1	FY 07	FMS	160	160																							0		
1	FY 08	A	1320	1320																							0		
1	FY 08	MC	75	75																							0		
1	FY 08	FMS	828	828																							0		
1	FY 09	A	1320	1320																							0		
1	FY 09	MC	230	230																							0		
1	FY 09	FMS	109	109																							0		
1	FY 10	A	1265	841	424	106	106	106	106																		0		
1	FY 11	A	715	0	715				110	110	110	110	110	110	55												0		
Command Launch Unit																													
2	FY 07	A	859	859																							0		
2	FY 07	MC	38	38																							0		
2	FY 08	A	604	604																							0		
2	FY 08	FMS	112	112																							0		
2	FY 09	A	920	920																							0		
2	FY 09	FMS	20	20																							0		
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS																		
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct																					
1	JV/All Up Round, Tucson, AZ/Orlando, FL	110	540	670		1	Initial	11	3	22	25																		
							Reorder	1	1	22	23																		
2	JV/CLU, Tucson,AZ/Orlando,FL	10	70	80		2	Initial	11	3	21	24																		
							Reorder	1	1	21	22																		
							Initial																						
							Reorder																						
							Initial																						
							Reorder																						
							Initial																						
							Reorder																						



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 2 / Other missiles

P-1 Item Nomenclature  
TOW 2 SYSTEM SUMMARY (C59300)

Program Elements for Code B Items:

Code:

Other Related Program Elements:  
Adv Proc C59300

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty	151842	9022	1849	1200	1025	1270	1233	2687		170128
Gross Cost	2621.8	404.3	141.9	143.1	77.3	123.6	148.4	205.8		3866.3
Less PY Adv Proc	87.5	10.0			22.4	35.8	37.1	59.2		252.0
Plus CY Adv Proc	97.5			48.4	38.4	32.4	35.4			252.0
Net Proc P1	2631.8	394.3	141.9	191.4	93.3	120.1	146.7	146.6		3866.3
Initial Spares										
Total Proc Cost	2631.8	394.3	141.9	191.4	93.3	120.1	146.7	146.6		3866.3
Flyaway U/C										
Weapon System Proc U/C	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1		0.7

**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 Heavy Brigade Combat Team (HBCT). TOW continues to be used consistently in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) 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. The 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), the M220A2 TOW 2 launcher, and the M901A1 Improved TOW Vehicles. The USMC employs the TOW missile from its ITAS launchers, ATGM - LAV, and AH-1W Cobra helicopters. The TOW missile provides the warfighter with a highly lethal, cost effective, interoperable, multi-purpose weapon.

**Justification:**

FY11 BASE procurement funding in the amount of \$78.681 million funds the first year of a five-year (FY11-15) multiyear contract for 6215 TOW missiles. This includes \$48.355 million in Advanced Procurement for Long Lead Items in FY11. The five year multiyear procurement keeps TOW missiles at the G3 critical requirement and maintains the supplier industrial base.

FY11 Overseas Contingency Operations (OCO) funding in the amount of \$112.768 million provides 1200 TOW missiles. The FY11 OCO replaces ARCENT combat expenditures and missiles deemed unserviceable due to damage, maintains the war fighting stockpile, and ensures a stable industrial base to meet any additional US or FMS requirements during a period of conflict of uncertain duration.

**NOTES:**

1. The Army intends to convert any price advantage created through contract negotiation, other service procurement, and/or foreign military sales into a buy-to-budget procurement strategy.
2. FY12-FY15 funding will be realigned in PB12 to reflect the multiyear contract profile as given in the multiyear exhibits.



<b>Exhibit P-40, Budget Item Justification Sheet</b>	Date: February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Item Nomenclature TOW Family of Missiles (C59403)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty	151842	9022	1849	1200	1025	1270	1233	2687		170128
Gross Cost	2621.8	404.3	141.9	143.1	77.3	123.6	148.4	205.8		3866.3
Less PY Adv Proc	87.5	10.0			22.4	35.8	37.1	59.2		252.0
Plus CY Adv Proc	97.5			48.4	38.4	32.4	35.4			252.0
Net Proc P1	2631.8	394.3	141.9	191.4	93.3	120.1	146.7	146.6		3866.3
Initial Spares										
Total Proc Cost	2631.8	394.3	141.9	191.4	93.3	120.1	146.7	146.6		3866.3
Flyaway U/C										
Weapon System Proc U/C	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1		0.7

**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 Heavy Brigade Combat Team (HBCT). TOW continues to be used consistently in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) 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. The 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), the M220A2 TOW 2 launcher, and the M901A1 Improved TOW Vehicles. The USMC employs the TOW missile from its ITAS launchers, ATGM - LAV, and AH-1W Cobra helicopters. The TOW missile provides the warfighter with a highly lethal, cost effective, interoperable, multi-purpose weapon.

**Justification:**  
FY11 BASE procurement funding in the amount of \$78.681 million funds the first year of a five-year (FY11-15) multiyear contract for 6215 TOW missiles. This includes \$48.355 million in Advanced Procurement for Long Lead Items in FY11. The five year multiyear procurement keeps TOW missiles at the G3 critical requirement and maintains the supplier industrial base.

FY11 Overseas Contingency Operations (OCO) funding in the amount of \$112.768 million provides 1200 TOW missiles. The FY11 OCO replaces ARCENT combat expenditures and missiles deemed unserviceable due to damage, maintains the war fighting stockpile, and ensures a stable industrial base to meet any additional US or FMS requirements during a period of conflict of uncertain duration.

- NOTES:**
1. The Army intends to convert any price advantage created through contract negotiation, other service procurement, and/or foreign military sales into a buy-to-budget procurement strategy.
  2. FY12-FY15 funding will be realigned in PB12 to reflect the multiyear contract.

Exhibit P-5, Weapon MSLS Cost Analysis	Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Line Item Nomenclature: TOW Family of Missiles (C59403)			Weapon System Type:			Date: February 2010		
MSLS Cost Elements	ID	FY 09			FY 10			FY 11		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
<b>Missile Non-Recurring</b>										
Missile Contract - (CAPS)					9939			11167		
<b>Missile Hardware - Recurring</b>										
Missile Contract		381816	9022	42	124118	1849	67	112381	1200	94
Engineering Services		9952			3689			12984		
Acceptance Testing		2447			670			387		
<b>Subtotal Missile Hardware</b>		<b>394215</b>			<b>138416</b>			<b>136919</b>		
<b>Engineering Support</b>										
Project Mgt Admin		10130			3517			6175		
<b>Subtotal Engineering Support</b>		<b>10130</b>			<b>3517</b>			<b>6175</b>		
<b>Total Flyaway</b>		<b>404345</b>			<b>141933</b>			<b>143094</b>		
Gross P-1 End Cost										
Less: Prior Year Adv Proc		10000								
Net P-1 Full Funding Cost								48355		
PLUS P-1 CY Adv. Proc.										
<b>Total:</b>		<b>394345</b>			<b>141933</b>			<b>191449</b>		

<b>Exhibit P-5a, Budget Procurement History and Planning</b>	Date: February 2010
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Appropriation/Budget Activity/Serial No: Missile Procurement, Army/ 2/ Other missiles	Weapon System Type:	P-1 Line Item Nomenclature: TOW Family of Missiles (C59403)
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WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Missile Contract</b>										
FY 2009	Raytheon Tucson, AZ	MY2/FFP	AMCOM, Redstone Arsenal, AL	Nov 08	Jun 11	1581	42	Yes		
FY 2009	Raytheon Tucson, AZ	OCO/FFP	AMCOM, Redstone Arsenal, AL	Jun 09	Mar 12	7441	42	Yes		
FY 2010	Raytheon Tucson, AZ	MY2/FFP	AMCOM, Redstone Arsenal, AL	Nov 09	Nov 13	1165	67	Yes		
FY 2010	Raytheon Tucson, AZ	OCO/FFP	AMCOM, Redstone Arsenal, AL	Jun 10	Jun 14	684	67	Yes		
FY 2011	Raytheon Tucson, AZ	MY3/FFP	AMCOM, Redstone Arsenal, AL	Nov 10					EOQ	
FY 2011	Raytheon Tucson, AZ	OCO/FFP	AMCOM, Redstone Arsenal, AL	Nov 10	Oct 14	1200	94	Yes		

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

The FY11 OCO Unit Cost is higher than the FY10 Unit Cost because:

- (1) the FY11 OCO is a single-year contract not associated with the previous multiyear contract AND
- (2) the quantities procure only the Gen2 (CAPS) configuration.

The FY11 MY3/FFP BASE contract shows no deliverables because the FY11 BASE is the first year of the multiyear that procures only Long Lead Items.

AMCOM   Aviation Missile Command  
 FFP      Firm Fixed Price  
 MY      Multi-Year  
 OCO     Overseas Contingency Operations

FY 08 / 09 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE TOW Family of Missiles (C59403)										Date: February 2010									
COST ELEMENTS						Fiscal Year 08										Fiscal Year 09										Later			
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 08										Calendar Year 09													
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
Missile Contract																													
1	FY 07	A	949	0	949												418		531									0	
1	FY 07	MC	1656	0	1656												18	50	100	200	225	350	400	313				0	
1	FY 07	FMS	462	0	462																							462	
1	FY 08	A	2301	0	2301		A																	243	600	600	600	212	46
1	FY 08	FMS	11180	0	11180												214											10966	
1	FY 09	A	1581	0	1581												A											1581	
1	FY 09	A	7441	0	7441																					A		7441	
1	FY 09	MC	1487	0	1487																				A			1487	
1	FY 09	FMS	3	0	3												A											3	
1	FY 10	A	1165	0	1165																							1165	
1	FY 10	A	684	0	684																							684	
1	FY 11	A	1200	0	1200																							1200	
Total					30109											436	264	631	200	225	350	400	556	600	600	600	212	25035	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Raytheon, Tucson, AZ	175	350	850	1	1	Initial	2	3	15	18	Multiyear contracts do not follow the Administrative Lead Time shown for annual year contracts.  FY07 Army: 949; USMC 1656; Canada: 462. FY08: Army: 2301; USMC 32; Canada: 1766; Pakistan: 3198; Korea 214; Egypt 2228; Kuwait 1960. FY09 Army: 9022; USMC: 1487; Spain 3. FY10 Army Base: 1165, OCO: 684. FY11 Army Base: 0, OCO: 1200. FY12-15 Army: 1025, 1270, 1233, 2687.
							Reorder	3	2	15	17	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

FY 10 / 11 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE TOW Family of Missiles (C59403)										Date: February 2010										
COST ELEMENTS						Fiscal Year 10										Fiscal Year 11										Later				
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 10										Calendar Year 11														
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP
Missile Contract																														
1	FY 07	A	949	949																								0		
1	FY 07	MC	1656	1656																								0		
1	FY 07	FMS	462	0	462				462																			0		
1	FY 08	A	2301	2255	46	46																						0		
1	FY 08	FMS	11180	214	10966	447	550	550	138	645	645	545	545	700	700	700	700	700	700	687	405	405	405	405	394			0		
1	FY 09	A	1581	0	1581																					175	175	175	175	881
1	FY 09	A	7441	0	7441																								7441	
1	FY 09	MC	1487	0	1487																								1487	
1	FY 09	FMS	3	0	3																								0	
1	FY 10	A	1165	0	1165			A																					1165	
1	FY 10	A	684	0	684									A															684	
1	FY 11	A	1200	0	1200																								1200	
Total					25035	493	550	550	600	645	645	545	545	700	700	700	700	700	700	687	405	405	405	405	397	175	175	175	175	12858
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct			
1	Raytheon, Tucson, AZ	175	350	850	1	1	Initial	2	3	15	18
							Reorder	3	2	15	17
							Initial				
							Reorder				
							Initial				
							Reorder				
							Initial				
							Reorder				

FY 12 / 13 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE TOW Family of Missiles (C59403)										Date: February 2010									
COST ELEMENTS						Fiscal Year 12										Fiscal Year 13										Later			
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 12										Calendar Year 13													
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
Missile Contract																													
1	FY 07	A	949	949																							0		
1	FY 07	MC	1656	1656																							0		
1	FY 07	FMS	462	462																							0		
1	FY 08	A	2301	2301																							0		
1	FY 08	FMS	11180	11180																							0		
1	FY 09	A	1581	700	881	175	175	175	175	175	6																0		
1	FY 09	A	7441	0	7441						621	621	621	621	621	621	621	621	621	621	610						0		
1	FY 09	MC	1487	0	1487																	175	175	175	175	175	175	262	
1	FY 09	FMS	3	3																							0		
1	FY 10	A	1165	0	1165																						1165		
1	FY 10	A	684	0	684																						684		
1	FY 11	A	1200	0	1200																						1200		
Total					12858	175	175	175	175	175	627	621	621	621	621	621	621	621	621	621	610	175	175	175	175	175	175	3311	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Raytheon, Tucson, AZ	175	350	850	1	1	Initial	2	3	15	18	Multiyear contracts do not follow the Administrative Lead Time shown for annual year contracts.  FY07 Army: 949; USMC 1656; Canada: 462. FY08: Army: 2301; USMC 32; Canada: 1766; Pakistan: 3198; Korea 214; Egypt 2228; Kuwait 1960. FY09 Army: 9022; USMC: 1487; Spain 3. FY10 Army Base: 1165, OCO: 684. FY11 Army Base: 0, OCO: 1200. FY12-15 Army: 1025, 1270, 1233, 2687.
							Reorder	3	2	15	17	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

FY 14 / 15 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE TOW Family of Missiles (C59403)										Date: February 2010								
COST ELEMENTS					Fiscal Year 14										Fiscal Year 15										Later			
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 14										Calendar Year 15												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR		MAY	JUN	JUL
Missile Contract																												
1	FY 07	A	949	949																							0	
1	FY 07	MC	1656	1656																							0	
1	FY 07	FMS	462	462																							0	
1	FY 08	A	2301	2301																							0	
1	FY 08	FMS	11180	11180																							0	
1	FY 09	A	1581	1581																							0	
1	FY 09	A	7441	7441																							0	
1	FY 09	MC	1487	1225	262	175	87																				0	
1	FY 09	FMS	3	3																							0	
1	FY 10	A	1165	0	1165		88	175	175	175	175	175	175	27													0	
1	FY 10	A	684	0	684									148	175	175	175	11									0	
1	FY 11	A	1200	0	1200											164	175	175	175	175	175	175	161				0	
Total					3311	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	161					
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR		ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS
		MIN	1-8-5	MAX				Prior 1 Oct	After 1 Oct			
1	Raytheon, Tucson, AZ	175	350	850	1	1	Initial	2	3	15	18	Multiyear contracts do not follow the Administrative Lead Time shown for annual year contracts.  FY07 Army: 949; USMC 1656; Canada: 462. FY08: Army: 2301; USMC 32; Canada: 1766; Pakistan: 3198; Korea 214; Egypt 2228; Kuwait 1960. FY09 Army: 9022; USMC: 1487; Spain 3. FY10 Army Base: 1165, OCO: 684. FY11 Army Base: 0, OCO: 1200. FY12-15 Army: 1025, 1270, 1233, 2687.
							Reorder	3	2	15	17	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

<b>Advance Procurement Requirements Analysis-Funding (P-10A)</b>				First System Award Date: Dec-03		First System Completion Date: Apr-03			Date: February 2010			
Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 2 / Other missiles						P-1 Line Item Nomenclature / Weapon System: TOW Family of Missiles						
(\$ in Millions)												
	PLT (mos)	When Rqd (mos)	Pr Yrs	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	To Comp	Total
End Item Quantity						1025.0	1270.0	1233.0	2687.0			6215.0
Items	0	0										
Warhead	19	0				16.7	12.2	10.9	12.2			52.0
Launch Motor	14	0				3.1	2.1	2.2	2.6			10.0
Flight Motor	12	0				0.6	0.4	0.4	0.5			1.9
2B Sensor	18	0				11.9	10.0	6.8	6.7			35.4
Gyro	13	0				5.4	3.6	3.8	4.4			17.2
Launch Motor Case Kit	10	0				1.2	0.8	0.9	1.0			3.9
Actuators	13	0				3.2	2.1	2.2	2.6			10.1
Aft Case	11	0				1.9	1.3	1.3	1.6			6.1
Gen2 Module	16	0				4.4	5.9	3.9	3.9			18.1
<b>Total Advance Procurement</b>			<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>48.4</b>	<b>38.4</b>	<b>32.4</b>	<b>35.5</b>	<b>0.0</b>	<b>0.0</b>	<b>154.7</b>
Advance Procurement funding in FY11, FY12, FY13, and FY14 procures Long Lead Items for a FY11-15 multi-year contract for 6,215 TOW (BGM-71 Series) missiles.												



Advance Procurement Requirements Analysis-Funding (P-10B)					Date: February 2010		
Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature / Weapon System: TOW Family of Missiles				
							(\$ in Millions)
				2011			
	PLT (mos)	Quantity Per Assembly	Unit Cost	Qty	Contract Forecast Date	Total Cost Request	
Items							
Warhead	19	1	11042.0	1513.0	11/02/2010	16.7	
Launch Motor	14	1	1615.0	1944.0	11/02/2010	3.1	
Flight Motor	12	1	304.0	1944.0	11/02/2010	0.6	
2B Sensor	18	1	10987.0	1082.0	11/02/2010	11.9	
Gyro	13	1	2760.0	1944.0	11/02/2010	5.4	
Launch Motor Case Kit	10	1	627.0	1944.0	11/02/2010	1.2	
Actuators	13	1	1634.0	1944.0	11/02/2010	3.2	
Aft Case	11	1	969.0	1944.0	11/02/2010	1.9	
Gen2 Module	16	1	12020.0	365.0	11/02/2010	4.4	
<b>Total Advance Procurement</b>						<b>48.4</b>	
Advance Procurement funding in FY11, FY12, FY13, and FY14 procures Long Lead Items for a FY11-15 multi-year contract for 6,215 TOW (BGM-71 Series) missiles.							

<b>Exhibit P-40, Budget Item Justification Sheet</b>	Date: February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Item Nomenclature BCT Non Line of Sight Launch System - Increment 1 (C64501)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:								
	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost				350.6	758.7	112.1				1221.3
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1				350.6	758.7	112.1				1221.3
Initial Spares										
Total Proc Cost				350.6	758.7	112.1				1221.3
Flyaway U/C										
Weapon System Proc U/C										

**Description:**  
The Non-Line of Sight Launch System (NLOS-LS) consists of the Precision Attack Missile (PAM) and a highly deployable, platform-independent Container Launch Unit (CLU) with self-contained technical fire control, electronics, communication and software for remote and unmanned operations. The PAM will be vertically launched directly from the CLU based on fire missions received via the IBCT network and will be capable of being updated in-flight via on-board radios by the network. The vertical launch capability permits a system that is highly deployable as well as the ability to engage a wide spectrum of targets in diverse environments and terrain. The PAM has an Automatic Target Acquisition (ATA) capability which can be readily upgraded with future threat/mission requirements. The BCT NLOS-LS Increment 1 (IBCT INC 1) will equip the IBCT with an Advanced Field Artillery Tactical Data System (AFATDS) command based unmanned precision attack missile system.

**Justification:**  
FY2011 procures the equipment to effectively equip the second and third Increment 1 IBCTs for the fielding in FY2012/2013. It also provides for the NLOS-LS unique production support and fielding efforts. For FY11 only, the NLOS-LS contractor System Engineering / Program Management support costs are included in the BCT Training/Logistic/Management (G8001) OPA Budget line. The first Increment 1 IBCT was funded in FY2010 under WTCV procurement budget line (G86200) and the Advance Procurement to support the FY2011 procurement of the NLOS-LS was also funded in the aforementioned WTCV budget line.

Exhibit P-5, Weapon MSLS Cost Analysis	Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Line Item Nomenclature: BCT Non Line of Sight Launch System - Increment 1 (C64501)			Weapon System Type:	Date: February 2010				
MSLS Cost Elements	ID	FY 09			FY 10			FY 11		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>BCT Non-Line of Sight Launch System (NLO)</b>										
Non Recurring Production										
Recurring Production Costs										
NLOS-LS										
PAM										
CLU										
Control Cell										
<b>Recurring Production Support Costs</b>										
Production Support										
Fielding Support										
SEPM - Contractor										
Funding Adj due to Budget Allocation										
Less: PY Advance Procurement*										
Plus: CY Advanced Procurement*										
<b>Total:</b>										
								41152		
								226209	485	466
								26347	23	1146
								4677	4	1169
								62242		
								2092		
								12145		
								29677		
								29677		
								<b>350574</b>		

<b>Exhibit P-5a, Budget Procurement History and Planning</b>	Date: February 2010
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Appropriation/Budget Activity/Serial No: Missile Procurement, Army/ 2/ Other missiles	Weapon System Type:	P-1 Line Item Nomenclature: BCT Non Line of Sight Launch System - Increment 1 (C64501)
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WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>PAM</b>										
FY 2011	Boeing Co. St. Loius, MO	SSFP	TACOM, Warren, MI	Jun 10	Jul 11	485	466			
FY 2012	Boeing Co. St. Loius, MO	SSFP	TACOM, Warren, MI	Jun 11	Jul 12	1180	368			
<b>CLU</b>										
FY 2011	Boeing Co. St. Loius, MO	SSFP	TACOM, Warren, MI	Jun 10	Jul 11	23	1146			
FY 2012	Boeing Co. St. Loius, MO	SSFP	TACOM, Warren, MI	Jun 11	Jul 12	60	961			
<b>Control Cell</b>										
FY 2011	Boeing Co. St. Loius, MO	SSFP	TACOM, Warren, MI	Jun 10	Jan 12	4	1169			
FY 2012	Boeing Co. St. Loius, MO	SSFP	TACOM, Warren, MI	Jun 11	Jul 12	12	1571			

REMARKS: \*Army did not have sufficient time to produce an Advanced Procurement line in the database. Request that the Congress consider the above Advanced Procurement request for this budget line.



FY 12 / 13 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE BCT Non Line of Sight Launch System - Increment 1 (C64501)										Date: February 2010									
COST ELEMENTS					Fiscal Year 12										Fiscal Year 13										Later				
M F R	FY	S E R V	PROC QTY x1000	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 12										Calendar Year 13													
						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
PAM																													
1	FY 11	A	485	96	389	39	50	50	50	50	50	50	50															0	
1	FY 12	A	1180	0	1180										100	100	100	100	100	100	100	100	100	100	150	130			0
CLU																													
1	FY 11		23	15	8	2	2	2	2																				0
1	FY 12		60	0	60										5	5	5	5	5	5	5	5	5	5	5	5			0
Control Cell																													
1	FY 11	A	4	2	2	1	1																						0
1	FY 12		12	0	12										2	2	2	2	2	2	2								0
Total																													
					1651	42	53	52	52	50	50	50	5	107	107	107	107	107	107	105	105	105	155	135					
						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

  

M F R	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Boeing Co., St. Loius, MO	1	4	6		1	Initial	0	9	9	18	
							Reorder	0	0	0	0	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 2 / Other missiles

P-1 Item Nomenclature  
Guided MLRS Rocket (GMLRS) (C64400)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

C65404, C65406, PE 0603778A, Projects 784/789

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty	6438	2646	3228	2592	2802	2892	2880	2946	17136	43560
Gross Cost	861.2	309.2	353.3	291.0	314.8	326.8	337.8	347.1	2084.2	5225.3
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	861.2	309.2	353.3	291.0	314.8	326.8	337.8	347.1	2084.2	5225.3
Initial Spares										
Total Proc Cost	861.2	309.2	353.3	291.0	314.8	326.8	337.8	347.1	2084.2	5225.3
Flyaway U/C										
Weapon System Proc U/C	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1

**Description:**

Guided Multiple Launch Rocket Systems (GMLRS) munitions are the Army's primary organic Joint Expeditionary, all-weather, all-terrain, 24/7, tactical range precision guided rockets employed by modular Fires Brigades supporting Brigade Combat Teams, Joint Special Operations Force and Joint Force combatant commanders. GMLRS are the primary munitions for units fielded with the High Mobility Artillery Rocket System and Multiple Launch Rocket System (MLRS) M270A1 rocket and missile launcher platforms. GMLRS provides close, medium and long range pin point precision and area fires to destroy, suppress and shape threat forces and protect friendly forces against: cannon, mortar, rocket and missile artillery; light materiel and armor; personnel; command and control; and air defense surface targets. GMLRS is a major upgrade/replacement for the aging M26A1/A2 rocket inventory that integrates a guidance and control package and an improved rocket motor achieving greater range and precision accuracy requiring fewer rockets to defeat targets than current artillery rockets, thereby reducing the logistics burden. There are two variants of GMLRS; GMLRS with Dual Purpose Improved Conventional Munitions (DPICM) and GMLRS with a 200-pound class high explosive warhead (Unitary). The GMLRS DPICM is a five nation cooperative program among France, Germany, Italy, United Kingdom and the United States. The GMLRS Unitary is a modification to the GMLRS DPICM integrating a multi-mode fuze and high explosive warhead making it an all-weather, low collateral damage, precision rocket. This modification expands the MLRS target set into urban and complex environments, adds point targets, and supports Troops in Contact (TIC). The alternative warhead will replace the DPICM with similar lethal capability that reduces unexploded ordnance. To meet Central Command Operational Need Statements, 1458 limited capability GMLRS Unitary rockets were accelerated and fielded in Iraq between June 2005 and December 2007. In the more than 1500 rockets fired in Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF), the GMLRS Unitary Rocket has demonstrated high effectiveness and low collateral damage while supporting TIC. The system includes training devices for tactical training, classroom training and handling exercises. GMLRS is also a key component of the Marine Corps Future Fighting Effort. GMLRS Rockets are manufactured in Camden, Arkansas.

**Justification:**

FY 2011 procures 2592 GMLRS Unitary rockets in the amount of \$291.041 million. The Army Procurement Objective is 43,560 Rockets.

Exhibit P-5, Weapon MSLS Cost Analysis	Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Line Item Nomenclature: Guided MLRS Rocket (GMLRS) (C64400)			Weapon System Type:	Date: February 2010				
MSLS Cost Elements	ID	FY 09			FY 10			FY 11		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
<b>Missile Hardware Recurring</b>										
GMLRS Rockets (DPICM) (C65404)										
GMLRS Rockets (Unitary) (C65404)		260115	2646	98	320367	3228	99	259366	2592	100
Engineering Services		9363			8004			7127		
Ind Maint/Init Prod Fac		9064								
Interim Contractor Support										
Fielding		788			656			551		
<b>Subtotal Hardware</b>		<b>279330</b>			<b>329027</b>			<b>267044</b>		
<b>Procurement Support</b>										
Project Management Admin		6471			4738			4820		
Production Engineering Support		16437			13434			12980		
Government Test		6605			5704			5791		
<b>Subtotal Procurement Support</b>		<b>29513</b>			<b>23876</b>			<b>23591</b>		
<b>Total Missile Flyaway</b>		<b>308843</b>			<b>352903</b>			<b>290635</b>		
<b>Support Costs</b>										
GMLRS Training Devices (C65406)		362			408			406		
Msl Test Device and Trainer										
<b>Subtotal Support Costs</b>		<b>362</b>			<b>408</b>			<b>406</b>		
<b>Total:</b>		<b>309205</b>			<b>353311</b>			<b>291041</b>		



<b>Exhibit P-5a, Budget Procurement History and Planning</b>	Date: February 2010
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Appropriation/Budget Activity/Serial No: Missile Procurement, Army/ 2/ Other missiles	Weapon System Type:	P-1 Line Item Nomenclature: Guided MLRS Rocket (GMLRS) (C64400)
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WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>GMLRS Rockets (DPICM) (C65404)</b>										
<b>GMLRS Rockets (Unitary) (C65404)</b>										
FY 2009	Lockheed Martin Dallas, Texas	SS/FFP	AMCOM, RSA, AL	Dec 08	Feb 10	2646	98	Yes		May-08
FY 2010	Lockheed Martin Dallas, Texas	SS/FFP	AMCOM, RSA, AL	Mar 10	May 11	3228	99	Yes		Sep-09
FY 2011	Lockheed Martin Dallas, Texas	SS/FFP	AMCOM,RSA,AL	Dec 10	Feb 12	2592	100	Yes		May-10

REMARKS: Lockheed Martin is currently the industry source that is both facilitized and qualified to produce the Guided Multiple Launch Rocket System (GMLRS) rocket.

\* Sole Source/Firm Fixed Price

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

FY 09 / 10 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE Guided MLRS Rocket (GMLRS) (C64400)										Date: February 2010															
COST ELEMENTS						Fiscal Year 09										Fiscal Year 10																			
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 09										Calendar Year 10										Later									
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP					
GMLRS Rockets (Unitary) (C65404)																																			
1	FY 09	A	1938	0	1938			A																			212	192	192	56	34	64	336	204	648
1	FY 09	MC	462	0	462			A																			36	36	36	36	36	36	36	42	168
1	FY 10	A	2616	0	2616																														2616
1	FY 10	MC	366	0	366																														366
1	FY 11	A	2592	0	2592																														2592
1	FY 11	MC	114	0	114																														114
Germany																																			
1	FY 09	OTH	210	0	210			A																											0
1	FY 10	OTH	120	0	120																														120
1	FY 11	OTH	240	0	240																														240
Italy																																			
1	FY 11	OTH	198	0	198																														198
United Kingdom																																			
1	FY 09	OTH	1308	0	1308			A																											104
1	FY 10	OTH	432	0	432																														432
1	FY 11	OTH	744	0	744																														744
France																																			
1	FY 09	OTH	12	0	12			A																											9
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP						
MFR	Name - Location					PRODUCTION RATES			Reached	MFR	ADMIN LEAD TIME		MFR	TOTAL	REMARKS																				
						MIN	1-8-5	MAX	D+	1	Prior 1 Oct	After 1 Oct	After 1 Oct	After 1 Oct																					
1	Lockheed Martin, Dallas, Texas					42	250	500	12	1	Initial	8	2	14	16																				
											Reorder	0	2	14	16																				
											Initial																								
											Reorder																								
											Initial																								
											Reorder																								
											Initial																								
											Reorder																								

FY 09 / 10 BUDGET PRODUCTION SCHEDULE						P-1 ITEM NOMENCLATURE Guided MLRS Rocket (GMLRS) (C64400)																Date: February 2010								
COST ELEMENTS						Fiscal Year 09												Fiscal Year 10												
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 09												Calendar Year 10												Later
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
France																														
1	FY 10	OTH	258	0	258																								258	
1	FY 11	OTH	258	0	258																								258	
United Arab Emirates																														
1	FY 09	FMS	516	0	516				A																			82	434	
1	FY 11	FMS	528	0	528																								528	
Singapore																														
1	FY 10	FMS	108	0	108																								108	
Bahrain																														
1	FY 10	FMS	36	0	36																								36	
GMLRS Supplemental Rockets																														
1	FY 09	A	708	0	708																								38	670
1	FY 09	MC	360	0	360																								15	345
1	FY 10	A	612	0	612																								612	
Japan																														
1	FY 09	FMS	180	0	180																								180	
1	FY 10	FMS	180	0	180																								0	
1	FY 11	FMS	180	0	180																								180	
Canada																														
1	FY 11	OTH	216	0	216																								216	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Lockheed Martin, Dallas, Texas	42	250	500	12	1	Initial	8	2	14	16	
							Reorder	0	2	14	16	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					



FY 11 / 12 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE Guided MLRS Rocket (GMLRS) (C64400)										Date: February 2010											
COST ELEMENTS						Fiscal Year 11										Fiscal Year 12															
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 11										Calendar Year 12										Later					
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP	
GMLRS Rockets (Unitary) (C65404)																															
1	FY 09	A	1938	1290	648	162	162	162	162																			0			
1	FY 09	MC	462	294	168	42	42	42	42																			0			
1	FY 10	A	2616	0	2616						157	380	202	145	108	96	104	236	265	315	209	197	202				0				
1	FY 10	MC	366	0	366						30	30	34	34	34	34	34	34	34	34	34						0				
1	FY 11	A	2592	0	2592				A													90	99	221	221	221	221	221	260	1038	
1	FY 11	MC	114	0	114				A													19	19	19	19	19	19		0		
Germany																															
1	FY 09	OTH	210	210																								0			
1	FY 10	OTH	120	0	120				63	57																		0			
1	FY 11	OTH	240	0	240				A													60	60	60	60			0			
Italy																															
1	FY 11	OTH	198	0	198				A													99	99					0			
United Kingdom																															
1	FY 09	OTH	1308	1204	104	104																						0			
1	FY 10	OTH	432	0	432							108	108	108	108													0			
1	FY 11	OTH	744	0	744				A																	62	62	62	62	62	434
France																															
1	FY 09	OTH	12	3	9	3	3	3																				0			
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
MFR	Name - Location					PRODUCTION RATES			Reached	MFR	ADMIN LEAD TIME		MFR	TOTAL	REMARKS																
						MIN	1-8-5	MAX	D+	1	Initial	Prior 1 Oct	After 1 Oct	After 1 Oct	After 1 Oct																
1	Lockheed Martin, Dallas, Texas					42	250	500	12	1	Initial	8	2	14	16																
											Reorder	0	2	14	16																
											Initial																				
											Reorder																				
											Initial																				
											Reorder																				
											Initial																				
											Reorder																				

FY 11 / 12 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE Guided MLRS Rocket (GMLRS) (C64400)										Date: February 2010												
COST ELEMENTS						Fiscal Year 11										Fiscal Year 12																
MFR	FY	SERV	PROC QTY	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 11										Calendar Year 12										Later						
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP		
France																																
1	FY 10	OTH	258	0	258									66	66	63	63											0				
1	FY 11	OTH	258	0	258			A																	24	24	21	21	21	147		
United Arab Emirates																																
1	FY 09	FMS	516	82	434	132	216	86																				0				
1	FY 11	FMS	528	0	528																				41	41	44	44	50	308		
Singapore																																
1	FY 10	FMS	108	0	108														40	46	22							0				
Bahrain																																
1	FY 10	FMS	36	0	36														36									0				
GMLRS Supplemental Rockets																																
1	FY 09	A	708	38	670	42	57	65	60	100	46	60	60	60	60	60												0				
1	FY 09	MC	360	15	345	15	20	30	30	83	17	30	30	30	30	30												0				
1	FY 10	A	612	0	612													54	95	54	42	35	120	93	26	26	24	43	0			
Japan																																
1	FY 09	FMS	180	0	180			46	134																			0				
1	FY 10	FMS	180	180																								0				
1	FY 11	FMS	180	0	180			A																	15	15	15	15	15	15	90	
Canada																																
1	FY 11	OTH	216	0	216			A																		18	18	18	18	18	18	108
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS																					
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct																								
1	Lockheed Martin, Dallas, Texas	42	250	500	12	1	Initial	8	2	14	16																					
							Reorder	0	2	14	16																					
							Initial																									
							Reorder																									
							Initial																									
							Reorder																									
							Initial																									
							Reorder																									



FY 13 / 14 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE Guided MLRS Rocket (GMLRS) (C64400)										Date: February 2010									
COST ELEMENTS						Fiscal Year 13										Fiscal Year 14													
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 13										Calendar Year 14										Later			
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
GMLRS Rockets (Unitary) (C65404)																													
1	FY 09	A	1938	1938																								0	
1	FY 09	MC	462	462																								0	
1	FY 10	A	2616	2616																								0	
1	FY 10	MC	366	366																								0	
1	FY 11	A	2592	1554	1038	258	244	268	268																			0	
1	FY 11	MC	114	114																								0	
Germany																													
1	FY 09	OTH	210	210																								0	
1	FY 10	OTH	120	120																								0	
1	FY 11	OTH	240	240																								0	
Italy																													
1	FY 11	OTH	198	198																								0	
United Kingdom																													
1	FY 09	OTH	1308	1308																								0	
1	FY 10	OTH	432	432																								0	
1	FY 11	OTH	744	310	434	62	62	62	62	62	62	62																0	
France																													
1	FY 09	OTH	12	12																								0	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Lockheed Martin, Dallas, Texas	42	250	500	12	1	Initial	8	2	14	16	
							Reorder	0	2	14	16	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					



FY 13 / 14 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE Guided MLRS Rocket (GMLRS) (C64400)										Date: February 2010									
COST ELEMENTS						Fiscal Year 13										Fiscal Year 14													
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 13										Calendar Year 14										Later			
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
France																													
1	FY 10	OTH	258	258																								0	
1	FY 11	OTH	258	111	147	21	21	21	21	21	21	21																0	
United Arab Emirates																													
1	FY 09	FMS	516	516																								0	
1	FY 11	FMS	528	220	308	44	44	44	44	44	44	44																0	
Singapore																													
1	FY 10	FMS	108	108																								0	
Bahrain																													
1	FY 10	FMS	36	36																								0	
GMLRS Supplemental Rockets																													
1	FY 09	A	708	708																								0	
1	FY 09	MC	360	360																								0	
1	FY 10	A	612	612																								0	
Japan																													
1	FY 09	FMS	180	180																								0	
1	FY 10	FMS	180	180																								0	
1	FY 11	FMS	180	90	90	15	15	15	15	15	15																	0	
Canada																													
1	FY 11	OTH	216	108	108	18	18	18	18	18	18																	0	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS																		
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct																					
1	Lockheed Martin, Dallas, Texas	42	250	500	12	1	Initial	8	2	14	16																		
							Reorder	0	2	14	16																		
							Initial																						
							Reorder																						
							Initial																						
							Reorder																						
							Initial																						
							Reorder																						



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 2 / Other missiles

P-1 Item Nomenclature  
MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)

Program Elements for Code B Items:

Code:

Other Related Program Elements:  
C65400, C65402, C65404

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty	10140	4014	2064	2058	2370	2430	2412	2706	28248	56442
Gross Cost	62.6	25.2	15.6	15.9	18.2	18.6	18.9	21.3	247.4	443.7
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	62.6	25.2	15.6	15.9	18.2	18.6	18.9	21.3	247.4	443.7
Initial Spares										
Total Proc Cost	62.6	25.2	15.6	15.9	18.2	18.6	18.9	21.3	247.4	443.7
Flyaway U/C										
Weapon System Proc U/C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

**Description:**

The Multiple Launch Rocket System (MLRS) Low Cost Reduced Range Practice Rocket (LCRRPR) is the only live training rocket or missile for the U.S. Army Field Artillery rocket and missile units/crews. In this capacity, the MLRS LCRRPR meets a critical validated requirement for Active and Reserve High Mobility Artillery Rocket System (HIMARS), M270A1 and M270 launcher units to achieve and maintain combat readiness in the Overseas Contingency Operation (OCO). The LCRRPR training rocket supports Army modularity. HIMARS and M270A1 Battalion are organic and attached to modular Fires Brigades supporting Brigade Combat Teams (BCTs), Joint Expeditionary Force (JEF) and Joint Special Operations Force (JSOF) combatant commands. The training rocket has an inert payload section with a blunt nose for inducing reduced range for use at multiple facilities both in the United States of America and other foreign countries. LCRRPR Rockets are manufactured in Camden, Arkansas.

**Justification:**

FY2011 funding procures 2058 LCRRPRs which are required to maintain the practice rocket inventory for Standards in Training Commission (STRC) requirements.

<b>Exhibit P-5, Weapon MSLS Cost Analysis</b>	Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Line Item Nomenclature: MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)	Weapon System Type:	Date: February 2010
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MSLS Cost Elements	ID CD	FY 09			FY 10			FY 11		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>HARDWARE</b>										
Reduced Range Practice Rocket (LCRRPR)		21945	4014	5	11366	2064	6	11498	2058	6
Warheads Govt Furnished Equip (GFE)		830			1568			1650		
Engineering Services		260			531			542		
First Destination Transportation		27			28			28		
<b>SUBTOTAL</b>		<b>23062</b>			<b>13493</b>			<b>13718</b>		
<b>PROCUREMENT SUPPORT</b>										
Project Management Admin		631			644			656		
Production Engineering Support		1133			1071			1097		
Test and Evaluation		399			407			415		
<b>SUBTOTAL</b>		<b>2163</b>			<b>2122</b>			<b>2168</b>		
<b>Total:</b>		<b>25225</b>			<b>15615</b>			<b>15886</b>		

<b>Exhibit P-5a, Budget Procurement History and Planning</b>	Date: February 2010
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Appropriation/Budget Activity/Serial No: Missile Procurement, Army/ 2/ Other missiles	Weapon System Type:	P-1 Line Item Nomenclature: MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)
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WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Reduced Range Practice Rocket (LCRRPR)</b>										
FY 2009	Lockheed Martin Dallas, Texas	SS/FFP	AMCOM, RSA, AL	Dec 08	Nov 09	4014	5	Yes		May 08
FY 2010	Lockheed Martin Dallas, Texas	SS/FFP	AMCOM, RSA, AL	Mar 10	May 11	2064	6	Yes		Sep 09
FY 2011	Lockheed Martin Dallas, Texas	SS/FFP	AMCOM, RSA, AL	Dec 10	Dec 11	2058	6	Yes		

REMARKS: Lockheed Martin is currently the industry source that is both facilitized and qualified to produce the Low Cost Reduced Range Practice Rocket.

- \* Sole source/Firm Fixed Price
- \*\* Aviation and Missile Command, Redstone Arsenal, AL

FY 09 / 10 BUDGET PRODUCTION SCHEDULE						P-1 ITEM NOMENCLATURE MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)												Date: February 2010												
COST ELEMENTS						Fiscal Year 09												Fiscal Year 10												
MFR	FY	SERV	PROC QTY x1000	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 09												Calendar Year 10												Later
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Reduced Range Practice Rocket (LCRRPR)																														
1	FY 09	A	4014	0	4014			A										330	330	330	336	336	336	336	336	336	336	336	336	336
1	FY 09	MC	732	0	732			A										60	60	60	60	60	60	60	60	60	60	60	66	66
1	FY 10	A	2064	0	2064																									2064
1	FY 10	MC	720	0	720																									720
1	FY 11	A	1249	0	1249																									1249
1	FY 11	MC	600	0	600																									600
1	FY 11	NG	809	0	809																									809
1	FY 11	TOT	2058	0	2058																									2058
1	FY 10	FMS	30	0	30																									30
Total					12276													390	390	390	396	396	396	396	396	396	396	396	402	7932
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Lockheed Martin, Dallas, Texas	42	480	960	12	1	Initial	8	2	11	13	
							Reorder	0	2	11	13	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

**FY 11 / 12 BUDGET PRODUCTION SCHEDULE**

P-1 ITEM NOMENCLATURE  
MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)

Date:  
February 2010

COST ELEMENTS						Fiscal Year 11												Fiscal Year 12												Later
MFR	FY	SERV	PROC QTY x1000	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 11												Calendar Year 12												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Reduced Range Practice Rocket (LCRRPR)																														
1	FY 09	A	4014	3678	336	336																						0		
1	FY 09	MC	732	666	66	66																						0		
1	FY 10	A	2064	0	2064							174	174	174	174	174	174	174	174	174	174	174	162	162			0			
1	FY 10	MC	720	0	720							60	60	60	60	60	60	60	60	60	60	60	60	60			0			
1	FY 11	A	1249	0	1249																						1249			
1	FY 11	MC	600	0	600				A																54	54	54	54	54	330
1	FY 11	NG	809	0	809																							809		
1	FY 11	TOT	2058	0	2058				A																174	174	174	174	174	1188
1	FY 10	FMS	30	0	30							30																0		
Total						7932	402					264	234	234	234	234	234	234	234	234	234	234	222	222	228	228	228	228	228	3576
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			1	Initial				After 1 Oct
1	Lockheed Martin, Dallas, Texas	42	480	960	12	1	Initial	8	2	11	13	
							Reorder	0	2	11	13	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

**FY 13 / 14 BUDGET PRODUCTION SCHEDULE**

P-1 ITEM NOMENCLATURE  
MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)

Date:  
February 2010

COST ELEMENTS						Fiscal Year 13												Fiscal Year 14												Later
MFR	FY	SERV	PROC QTY x1000	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 13												Calendar Year 14												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Reduced Range Practice Rocket (LCRRPR)																														
1	FY 09	A	4014	4014																								0		
1	FY 09	MC	732	732																								0		
1	FY 10	A	2064	2064																								0		
1	FY 10	MC	720	720																								0		
1	FY 11	A	1249	0	1249																							1249		
1	FY 11	MC	600	270	330	54	54	54	42	42	42	42																0		
1	FY 11	NG	809	0	809																							809		
1	FY 11	TOT	2058	870	1188	174	174	174	174	174	162	156																0		
1	FY 10	FMS	30	30																								0		
Total					3576	228	228	228	216	216	204	198																2058		
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Lockheed Martin, Dallas, Texas	42	480	960	12	1	Initial	8	2	11	13	
							Reorder	0	2	11	13	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					



# Exhibit P-40, Budget Item Justification Sheet

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 2 / Other missiles

P-1 Item Nomenclature  
High Mobility Artillery Rocket System (HIMARS) (C02901)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

C03000 HIMARS, C03001 HIMARS Training Devices & 0603778A090 HIMARS RDTE

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty	228	57	46	44						375
Gross Cost	984.7	227.5	208.4	211.5	31.7	20.3	7.1	7.2		1698.5
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	984.7	227.5	208.4	211.5	31.7	20.3	7.1	7.2		1698.5
Initial Spares	40.9	12.9	8.9	9.7	0.9	1.2	1.2	1.3		77.2
Total Proc Cost	1025.7	240.4	217.3	221.2	32.7	21.5	8.3	8.5		1775.6
Flyaway U/C										
Weapon System Proc U/C	4.3	4.0	4.5	4.8						17.6

**Description:**

The M142 High Mobility Artillery Rocket System (HIMARS) fully supports more deployable, affordable and lethal, Brigade Combat Teams, Fires Brigade, Modular Forces, and Joint Expeditionary Forces. The HIMARS launcher is a C-130 transportable, wheeled, indirect fire, rocket/missile launcher capable of firing all rockets and missiles in the current and future Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM) and Army Tactical Missile System (ATACMS) Family of Munitions (AFOM). The HIMARS launcher has extensive commonality with the MLRS M270A1 tracked launcher and consists of a Fire Control System, a carrier (FMTV XM1140 automotive chassis) and a launcher-loader module (LLM) that performs all operations necessary to complete a fire mission. The MFOM and AFOM are a family of rockets and missiles capable of attacking a variety of tactical and operational targets, providing the requisite range and lethality to support maneuver commanders out to 300 kilometers. HIMARS when firing ATACMS and GMLRS is capable of the precise attack of targets in both open and complex/urban terrain, with low collateral damage. HIMARS satisfies the Army's digitization requirements by interfacing with the Advanced Field Artillery Tactical Data System (AFATDS) fire support command and control system. HIMARS is interoperable with existing MLRS units in terms of communications and reloading capabilities. HIMARS is an all-weather, day/night, indirect fire system used in support of light, early and forced entry expeditionary operations using a more deployable, lethal, survivable and tactically mobile long range artillery system. The HIMARS is deployable worldwide and will operate in a wide range of climatic conditions. It is certified by the Air Force for fixed-wing air transport in a fully combat loaded, combat ready configuration. HIMARS, as part of the Fires Brigade, will provide fires that shape, shield and isolate the battle space. Using both precision GMLRS and ATACMS Unitary munitions, HIMARS provides close support fires for Troops in Contact (TIC) in both open and urban terrain. The HIMARS provides Joint Expeditionary Forces a flexible and lethal rocket/missile capability that can be employed by platoon, battery, or battalion, each with the ability to operate independently for a limited period. HIMARS units can be quickly tailored for centralized or decentralized execution throughout the depth and breadth of the battle space in support of distributed forces. The program also includes training devices for tactical training, classroom training, and handling exercises. HIMARS has been deployed to both Operation Iraqi Freedom (OIF)/Operation Enduring Freedom (OEF) with great success. HIMARS is also a key component of the Marine Corps Future Fighting Effort.

**Justification:**

FY11 procurement dollars in the amount of \$221.223 million supports 44 HIMARS launchers and software, trainers, initial spares, field support and associated support items of equipment. HIMARS meets the Army's modernization goal for the 21st century, and was selected by Army strategic planners as one of the Army's core systems of the Fires Brigade. The approved Army Acquisition Objective is 888 and the Army Procurement Objective is 375.

Exhibit P-5, Weapon MSLS Cost Analysis	Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles	P-1 Line Item Nomenclature: High Mobility Artillery Rocket System (HIMARS) (C02901)			Weapon System Type:			Date: February 2010		
MSLS Cost Elements	ID	FY 09			FY 10			FY 11		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
<b>GROUND EQUIPMENT HARDWARE</b>										
Launcher (SSN C02901)		154814	57	2716	133354	46	2899	133713	44	3039
Carrier (Government Furnished Property)		21201	57	372	21436	46	466	23982	44	545
Engineering Services, IES		11073			11225			11318		
Fielding		9945			10605			10121		
<b>SUBTOTAL</b>		<b>197033</b>			<b>176620</b>			<b>179134</b>		
<b>PROCUREMENT SUPPORT</b>										
Project Management Admin		8310			9674			9997		
Production Engineering		11085			12149			12184		
Government Testing		3384			3094			3098		
<b>SUBTOTAL</b>		<b>22779</b>			<b>24917</b>			<b>25279</b>		
<b>SUPPORT EQUIPMENT</b>										
Peculiar Support Equipment		2304			2401			1204		
<b>SUBTOTAL</b>		<b>2304</b>			<b>2401</b>			<b>1204</b>		
<b>Training Devices (C03001)</b>										
Tactical Trainer		4521			3680			5132		
Simulator		872			798			768		
<b>Subtotal</b>		<b>5393</b>			<b>4478</b>			<b>5900</b>		
<b>Total:</b>		<b>227509</b>			<b>208416</b>			<b>211517</b>		

<b>Exhibit P-5a, Budget Procurement History and Planning</b>	Date: February 2010
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Appropriation/Budget Activity/Serial No: Missile Procurement, Army/ 2/ Other missiles	Weapon System Type:	P-1 Line Item Nomenclature: High Mobility Artillery Rocket System (HIMARS) (C02901)
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WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Launcher (SSN C02901)</b>										
FY 2009	Lockheed Martin Dallas Texas	SS/FFP*	AMCOM, RSA, AL**	Dec 08	Jun 10	57	2716	Yes		Mar 08
FY 2010	Lockheed Martin Dallas Texas	SS/FFP*	AMCOM, RSA, AL**	Dec 09	Apr 11	46	2899	Yes		Mar 09
FY 2011	Lockheed Martin Dallas Texas	SS/FFP*	AMCOM, RSA, AL**	Dec 10	Apr 12	44	3039	Yes		Mar 10

REMARKS: Sole Source - Lockheed Martin and Fire Control System (LMMFC) is currently the only industry source that is both facilitized and qualified to produce the HIMARS launcher.

\* SS/FFP - Sole Source/Firm Fixed Price

\*\* AMCOM, RSA, Alabama (AL) - Aviation and Missile Command, Redstone Arsenal, AL

Note: Unit cost shown above reflects launcher costs only and does not reflect the cost of carriers which are provided to LMMFC as Government Furnished Equipment (GFE).

FY 09 / 10 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE High Mobility Artillery Rocket System (HIMARS) (C02901)										Date: February 2010											
COST ELEMENTS						Fiscal Year 09										Fiscal Year 10										Later					
MFR	FY	SERV	PROC QTY x1000	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 09										Calendar Year 10															
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP	
Launcher (SSN C02901)																															
1	FY 08	A	57	0	57						3	4	5	6	7	7	7	7	7	7	4							0			
1	FY 09	A	57	0	57			A																		6	7	7	7	30	
1	FY 10	A	46	0	46															A								46			
1	FY 11	A	44	0	44																							44			
1	FY 07	A	44	0	44	4	4	4	4	4																		24			
Marine Corp																															
1	FY 09	MC	7	0	7			A																				7			
1	FY 07	MC	16	0	16	1	1	1	1	1																		11			
United Arab Emirate																															
1	FY 08	FMS	20	0	20															3	7	4				6		0			
Singapore																															
1	FY 08	FMS	18	0	18																				3	7	7	1	0		
Total																															
					309	5	5	5	5	5	3	4	5	6	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	162
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Lockheed Martin, Dallas Texas	2	7	12		1	Initial	8	3	16	19	
							Reorder	0	3	16	19	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

COST ELEMENTS						Fiscal Year 11												Fiscal Year 12												Later
MFR	FY	SERV	PROC QTY x1000	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 11												Calendar Year 12												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Launcher (SSN C02901)																														
1	FY 08	A	57	57																							0			
1	FY 09	A	57	27	30	7	7	6	6	4																	0			
1	FY 10	A	46	0	46						4	4	4	4	4	4	4	4	4	4	3	3					0			
1	FY 11	A	44	0	44			A													4	4	4	4	4	4	20			
1	FY 07	A	44	20	24																						24			
Marine Corp																														
1	FY 09	MC	7	0	7					1	6																0			
1	FY 07	MC	16	5	11																						11			
United Arab Emirate																														
1	FY 08	FMS	20	20																							0			
Singapore																														
1	FY 08	FMS	18	18																							0			
Total																														
					162	7	7	6	6	5	6	4	4	4	4	4	4	4	4	4	3	3	4	4	4	4	4	55		
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Lockheed Martin, Dallas Texas	2	7	12		1	Initial	8	3	16	19	
							Reorder	0	3	16	19	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

FY 13 / 14 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE High Mobility Artillery Rocket System (HIMARS) (C02901)										Date: February 2010									
COST ELEMENTS						Fiscal Year 13										Fiscal Year 14													
MFR	FY	SERV	PROC QTY x1000	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 13										Calendar Year 14										Later			
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
Launcher (SSN C02901)																													
1	FY 08	A	57	57																								0	
1	FY 09	A	57	57																								0	
1	FY 10	A	46	46																								0	
1	FY 11	A	44	24	20	4	4	4	4	4																		0	
1	FY 07	A	44	20	24																							24	
Marine Corp																													
1	FY 09	MC	7	7																								0	
1	FY 07	MC	16	5	11																							11	
United Arab Emirate																													
1	FY 08	FMS	20	20																								0	
Singapore																													
1	FY 08	FMS	18	18																								0	
Total																													
					55	4	4	4	4	4																		35	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

  

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Lockheed Martin, Dallas Texas	2	7	12		1	Initial	8	3	16	19	
							Reorder	0	3	16	19	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 3 / Modification of missiles

P-1 Item Nomenclature  
Patriot Mods (C50700)

Program Elements for Code B Items: Code: Other Related Program Elements:  
Patriot Modification Initial Spares, CA0267

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost	1807.0	515.4	44.6	57.2	24.1	24.0	98.7	96.5	937.3	3604.9
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	1807.0	515.4	44.6	57.2	24.1	24.0	98.7	96.5	937.3	3604.9
Initial Spares	157.0	10.8	10.5	7.0	6.7	6.7	6.8	5.8	90.4	301.8
Total Proc Cost	1964.1	526.2	55.2	64.2	30.8	30.7	105.4	102.3	1027.7	3906.7
Flyaway U/C										
Weapon System Proc U/C										

**P-40 Breakdown**

Area		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Active	Qty	0	0	0	0	0	0	0
	Gross Cost	515375.0	44637.0	57170.0	24087.0	24015.0	98684.0	96539.0
National Guard	Qty	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserve	Qty	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Qty	0	0	0	0	0	0	0
	Gross Cost	515375	44637	57170	24087	24015	98684	96539

**Description:**

The Patriot weapon system growth program implements modifications to the weapon system and maintains Integrated Logistics Support. Required modifications are identified through various means, including the following: Material changes identified in the Patriot Product Improvement Program; corrections identified in the field; obsolescence issues; emerging technologies; software improvements and communication upgrades.

**Justification:**

FY2011 Base funding in the amount of \$57.170 million supports the modifications for Reliability, Availability, and Maintainability Modifications (RAM Mods), Tactical Command System/Battery Command Post (TCS/BCP), and Recapitalization.

Exhibit P-40M, Budget Item Justification Sheet											Date: February 2010	
Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 3 / Modification of missiles						P-1 Item Nomenclature PATRIOT MODS (C50700)						
Appropriation / Budget Activity / Serial No:						P-1 Item Nomenclature						
Program Elements for Code B Items:						Code:		Other Related Program Elements: PATRIOT Modification Initial Spares, CA0267				
Description		Fiscal Years										
OSIP No.	Classification	Prior Yrs.	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TC	Total	
RLCEU - Pure Fleet/Grow The Army												
1-92-03-1233		216.4	27.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	243.7	
RAM MODS												
1-98-03-1249		705.5	86.8	24.9	37.4	5.6	5.5	11.6	11.8	724.4	1613.5	
Recapitalization												
1-01-01-1252		209.1	9.1	13.6	13.6	13.0	13.0	13.0	13.0	113.9	411.3	
Radar Phase III/CDI Phase III - Pure Fleet/GTA												
1-89-03-1231		435.8	85.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	520.8	
TCS/BCP - Pure Fleet/Grow the Army												
1-97-03-1246		70.3	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	85.3	
TCS/BCP												
1-01-01-1251		55.4	6.1	6.1	6.2	5.5	5.5	5.5	5.5	99.0	194.8	
Command Launch System - Pure Fleet/Grow the Army												
0-00-00-0000		63.8	127.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	190.8	
Patriot Spares - Pure Fleet/Grow the Army												
0-00-00-0000		50.7	159.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	209.8	
Radar Digital Processor (RDP)												
0-00-00-0000		0.0	0.0	0.0	0.0	0.0	0.0	68.6	66.2	0.0	134.8	
Totals		1807.0	515.4	44.6	57.2	24.1	24.0	98.7	96.5	937.3	3604.8	



**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: RLCEU - Pure Fleet/Grow The Army [MOD 1] 1-92-03-1233

MODELS OF SYSTEM AFFECTED: Information Coordination Central (ICC), Engagement Control Station (ECS), Commo Relay Group (CRG)

**DESCRIPTION / JUSTIFICATION:**

The Remote Launch/Communication Enhancement Upgrade (RLCEU) effort focuses on improving communications at the "below" battalion level through the introduction of new switching equipment and a new communications processor at the battery level in conjunction with a conversion to Band IV Ultra High Frequency (UHF) throughout the battalion. Additionally, the project will develop and field a remote launch capability permitting emplacement of a remote launcher farm in excess of 30 Km from the parent Engagement Control Station (ECS). This project is required to meet PAC-3 requirements for increased battlespace, lethality and rate of fire. Additionally, requirements for interoperability and communications are satisfied by this effort.

	Prior	FY02	FY03	FY04	FY07	FY08	FY09
CRG	22	4	5	6	4	12	4
ECS	39	6	8	8	4	12	4
ICC	12	1		1	1	3	1

RLCEU Financial Plan reflects total quantity (ECS/ICC/CRG).

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):**

Planned	Accomplished
Preliminary Design Review	2QFY96      3QFY96
Critical Design Review (CDR)	4QFY96      4QFY96
Configuration Development Test & Evaluation (CDTE)	4QFY99      1QFY00
Force Development Test Experimentation (FDTE)	1QFY00      1QFY00
Limited User Testing (LUT)	2QFY00      3QFY00

**Installation Schedule**

Pr Yr	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals	6	7	7	7	7	4														
119			7	6	7	7	7	7	4											
112																				

  

FY 2014				FY 2015				FY 2016				FY 2017				To Complete	Totals
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
																	157
																	157

**METHOD OF IMPLEMENTATION:**

ADMINISTRATIVE LEADTIME:

3 months

PRODUCTION LEADTIME: 24 months

Contract Dates:

FY 2010 -

FY 2011 -

FY 2012 -

Delivery Dates:

FY 2010 -

FY 2011 -

FY 2012 -

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): RLCEU - Pure Fleet/Grow The Army [MOD 1] 1-92-03-1233

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
<b>RD&amp;E</b>																						
<b>Procurement</b>																						
Kit Quantity	148	206.2	9	27.2																	157	233.4
Installation Kits																						
Installation Kits, Nonrecurring																						
Equipment																						
Equipment, Nonrecurring																						
Engineering Change Orders																						
Data																						
Training Equipment																						
Support Equipment																						
Other																						
Interim Contractor Support																						
<b>Installation of Hardware</b>																						
FY 2007 & Prior Equip -- Kits	121	10.0																			121	10.0
FY 2008 -- Kits	27	0.2																			27	0.2
FY 2009 Equip -- Kits			9	0.1																	9	0.1
FY 2010 Equip -- Kits																						
FY 2011 Equip -- Kits																						
FY 2012 Equip -- Kits																						
FY 2013 Equip -- Kits																						
FY 2014 Equip -- Kits																						
TC Equip- Kits																						
Total Installment	148	10.2	9	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	157	10.3
Total Procurement Cost		216.4		27.3		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		243.7

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: RAM MODS [MOD 2] 1-98-03-1249

MODELS OF SYSTEM AFFECTED: All GSE

**DESCRIPTION / JUSTIFICATION:**

These 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 associated with the modification and is essential to stabilize the system at the highest readiness posture available and reduction of O&S.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):**

Major milestones not applicable.

**Installation Schedule**

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
4194	173	173	283	283	283	284	66	66	65	65	77	77	76	75						
4020	174	173	173	283	283	283	284	66	66	65	65	77	77	76	75					

  

FY 2014				FY 2015				FY 2016				FY 2017				To Complete	Totals
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
		22	22	22	20	23	23	23	11							7707	14113
			22	22	22	20	23	23	23	11						7707	14113

**METHOD OF IMPLEMENTATION:**

**ADMINISTRATIVE LEADTIME:**

6 months

**PRODUCTION LEADTIME:**

6 months

Contract Dates:

FY 2010 - Dec 09

FY 2011 - Dec 10

FY 2012 - Dec 11

Delivery Dates:

FY 2010 - Jun 10

FY 2011 - Jun 11

FY 2012 - Jun 12

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): RAM MODS [MOD 2] 1-98-03-1249

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RD&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity	4530	674.0	1133	68.0	262	17.3	305	29.3					86	6.0	90	6.3	7707	535.9	14113	1336.8
Installation Kits																				
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment		2.5																		2.5
Support Equipment																				
Other		9.4		11.2		4.9		5.0		4.8		4.7		4.1		3.9		99.1		147.1
Contractor Logistics Support		1.6		0.8		0.8		0.8		0.8		0.8		0.8		0.8		15.2		22.4
<b>Installation of Hardware</b>																				
FY 2007 & Prior Equip -- Kits	3836	13.8																	3836	13.8
FY 2008 -- Kits	694	4.2																	694	4.2
FY 2009 Equip -- Kits			1133	6.8															1133	6.8
FY 2010 Equip -- Kits					262	1.9													262	1.9
FY 2011 Equip -- Kits							305	2.3											305	2.3
FY 2012 Equip -- Kits																				
FY 2013 Equip -- Kits																				
FY 2014 Equip -- Kits													86	0.7					86	0.7
TC Equip- Kits														90	0.8	7707	74.2	7797	75.0	
Total Installment	4530	18.0	1133	6.8	262	1.9	305	2.3	0	0.0	0	0.0	86	0.7	90	0.8	7707	74.2	14113	104.7
Total Procurement Cost		705.5		86.8		24.9		37.4		5.6		5.5		11.6		11.8		724.4		1613.5

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: Recapitalization [MOD 3] 1-01-01-1252

MODELS OF SYSTEM AFFECTED: ECS, ICC, LS,CRG

**DESCRIPTION / JUSTIFICATION:**

These modifications include communication upgrades, Family of Medium Tactical Vehicles (FMTV), training upgrades, and Depot Maintenance Plant Equipment (DMPE) and are synchronized with the recapitalization program.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):**

Major milestones not applicable.

**Installation Schedule**

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
5		1				1				1				1				1		
5				1				1				1				1				1

  

FY 2014				FY 2015				FY 2016				FY 2017				To Complete	Totals
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	1				1				1							3	16
			1				1				1					3	16

**METHOD OF IMPLEMENTATION:**

**ADMINISTRATIVE LEADTIME:**

6 months

**PRODUCTION LEADTIME:**

12 months

Contract Dates:

FY 2010 - Mar 10

FY 2011 - Mar 11

FY 2012 - Mar 12

Delivery Dates:

FY 2010 - Mar 11

FY 2011 - Mar 12

FY 2012 - Mar 13

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): Recapitalization [MOD 3] 1-01-01-1252

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RD&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity	6	189.9	1	6.4	1	10.4	1	10.4	1	10.0	1	10.0	1	10.0	1	10.0	3	98.7	16	355.8
Installation Kits																				
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other				1.9		2.0		2.0		2.0		2.0		2.0		2.0		7.0		20.9
Contractor Logistics Support																				
<b>Installation of Hardware</b>																				
FY 2007 & Prior Equip -- Kits	6	19.2																	6	19.2
FY 2008 -- Kits			1	0.8															1	0.8
FY 2009 Equip -- Kits					1	1.2													1	1.2
FY 2010 Equip -- Kits							1	1.2											1	1.2
FY 2011 Equip -- Kits									1	1.0									1	1.0
FY 2012 Equip -- Kits											1	1.0							1	1.0
FY 2013 Equip -- Kits													1	1.0					1	1.0
FY 2014 Equip -- Kits															1	1.0			1	1.0
TC Equip- Kits																	3	8.2	3	8.2
Total Installment	6	19.2	1	0.8	1	1.2	1	1.2	1	1.0	1	1.0	1	1.0	1	1.0	3	8.2	16	34.6
Total Procurement Cost		209.1		9.1		13.6		13.6		13.0		13.0		13.0		13.0		113.9		411.3

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: Radar Phase III/CDI Phase III - Pure Fleet/GTA [MOD 4] 1-89-03-1231

MODELS OF SYSTEM AFFECTED: Radar

DESCRIPTION / JUSTIFICATION:

The objective of this modification is to increase the average power providing greater multifunction capability and increase the reliability and maintainability of the radar. Transmitter and receiver modifications will be made to the radar.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Planned	Accomplished		
Preliminary Design Review (PDR)	2QFY92	2QFY92	
Critical Design Review (CDR)	3QFY93	3QFY93	
Contractor Test and Evaluation (CTE)	4QFY99	1QFY00	
Development Test and Evaluation (DTE)	1QFY00	1QFY00	
Initial Operational Test and Evaluation (IOTE)	2QFY02	2QFY02	

Installation Schedule

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
10			1	3	3	3	3	3	3	1										
10						1	3	3	3	3	3	3	1							
	FY 2014				FY 2015				FY 2016				FY 2017				To Complete	Totals		
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
																		30		
																		30		

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

5 months

PRODUCTION LEADTIME: 24 months

Contract Dates: FY 2010 -

FY 2011 -

FY 2012 -

Delivery Dates: FY 2010 -

FY 2011 -

FY 2012 -

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): Radar Phase III/CDI Phase III - Pure Fleet/GTA [MOD 4] 1-89-03-1231

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
<b>RDТ&amp;E</b>																					
<b>Procurement</b>																					
Kit Quantity	26	385.6	4	77.0															30	462.6	
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
<b>Installation of Hardware</b>																					
FY 2007 & Prior Equip -- Kits	14	26.2																	14	26.2	
FY 2008 -- Kits	12	24.0																	12	24.0	
FY 2009 Equip -- Kits			4	8.0															4	8.0	
FY 2010 Equip -- Kits																					
FY 2011 Equip -- Kits																					
FY 2012 Equip -- Kits																					
FY 2013 Equip -- Kits																					
FY 2014 Equip -- Kits																					
TC Equip- Kits																					
Total Installment	26	50.2	4	8.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	30	58.2	
Total Procurement Cost		435.8		85.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		520.8	



**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: TCS/BCP - Pure Fleet/Grow the Army [MOD 5] 1-97-03-1246

MODELS OF SYSTEM AFFECTED: TCS/BCP

**DESCRIPTION / JUSTIFICATION:**

This modification integrates the hardware and software required at Battery (BCP) and Battalion (TCS) to provide Force Operations functionality. This includes automated defense design, weapon system initialization, situational awareness and Battle Management Command, Control, Communications, Computers and Intelligence voice and data interoperability. This mod also provides powered and conditioned space for Battalion and Battery commanders.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):**

Major milestones are not applicable.

**Installation Schedule**

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
88					2	3			2	3										
88						2	3			2	3									

  

FY 2014				FY 2015				FY 2016				FY 2017				To Complete	Totals
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
																	98
																	98

**METHOD OF IMPLEMENTATION:**

**ADMINISTRATIVE LEADTIME:**

6 months

**PRODUCTION LEADTIME:**

6 months

Contract Dates:

FY 2010 -

FY 2011 -

FY 2012 -

Delivery Dates:

FY 2010 -

FY 2011 -

FY 2012 -

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): TCS/BCP - Pure Fleet/Grow the Army [MOD 5] 1-97-03-1246

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
<b>RD&amp;E</b>																					
<b>Procurement</b>																					
Kit Quantity	93	60.3	5	14.1															98	74.4	
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other		4.0																		4.0	
Contractor Logistics Support																					
<b>Installation of Hardware</b>																					
FY 2007 & Prior Equip -- Kits	88	5.1																	88	5.1	
FY 2008 -- Kits	5	0.9																	5	0.9	
FY 2009 Equip -- Kits			5	0.9															5	0.9	
FY 2010 Equip -- Kits																					
FY 2011 Equip -- Kits																					
FY 2012 Equip -- Kits																					
FY 2013 Equip -- Kits																					
FY 2014 Equip -- Kits																					
TC Equip- Kits																					
Total Installment	93	6.0	5	0.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	98	6.9	
Total Procurement Cost		70.3		15.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		85.3	

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: TCS/BCP [MOD 6] 1-01-01-1251

MODELS OF SYSTEM AFFECTED: TCS/BCP

**DESCRIPTION / JUSTIFICATION:**

The TCS/BCP effort continues the development of required capability while maintaining consistency and compatibility with the existing tactical software. This includes concept development and systems engineering; software requirements and requirements updates; and Independent Validation and Verification. Hardware obsolescence alleviation and technology refresh are required components to this effort. Technology refresh efforts will be required for the service life of the TCS and BCP.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):**

Major milestones are not applicable.

**Installation Schedule**

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
27																				
27																				

  

FY 2014				FY 2015				FY 2016				FY 2017				To Complete	Totals
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
																	27
																	27

**METHOD OF IMPLEMENTATION:**

**ADMINISTRATIVE LEADTIME:**

3 months

**PRODUCTION LEADTIME:** 12 months

Contract Dates:

FY 2010 - Mar 10

FY 2011 - Mar 11

FY 2012 - Mar 12

Delivery Dates:

FY 2010 -

FY 2011 -

FY 2012 -

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): TCS/BCP [MOD 6] 1-01-01-1251

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RD&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity	27	29.0																	27	29.0
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other (Software)		5.0		2.9		3.0		3.1		2.8		2.8		2.8		2.8		39.6		64.8
Contractor Logistics Support		15.3		3.2		3.1		3.1		2.7		2.7		2.7		2.7		59.4		94.9
<b>Installation of Hardware</b>																				
FY 2007 & Prior Equip -- Kits	27	6.1																	27	6.1
FY 2008 -- Kits																				
FY 2009 Equip -- Kits																				
FY 2010 Equip -- Kits																				
FY 2011 Equip -- Kits																				
FY 2012 Equip -- Kits																				
FY 2013 Equip -- Kits																				
FY 2014 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>	27	6.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	27	6.1
<b>Total Procurement Cost</b>		55.4		6.1		6.1		6.2		5.5		5.5		5.5		5.5		99.0		194.8



**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): Command Launch System - Pure Fleet/Grow the Army [MOD 7] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RD&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity	17	62.1	36	112.9															53	175.0
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other				10.5																10.5
Contractor Logistics Support																				
<b>Installation of Hardware</b>																				
FY 2007 & Prior Equip -- Kits	17	1.7																	17	1.7
FY 2008 -- Kits			36	3.6															36	3.6
FY 2009 Equip -- Kits																				
FY 2010 Equip -- Kits																				
FY 2011 Equip -- Kits																				
FY 2012 Equip -- Kits																				
FY 2013 Equip -- Kits																				
FY 2014 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	17	1.7	36	3.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	53	5.3
Total Procurement Cost		63.8		127.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		190.8

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: Patriot Spares - Pure Fleet/Grow the Army [MOD 8] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: Configuration 2 and Configuration 3 Patriot Ground Support Equipment

DESCRIPTION / JUSTIFICATION:  
Buys spares for Pure Fleet and Grow the Army battalions.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):  
Major milestones are not applicable.

Installation Schedule

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
				1	1		1	1												
				1	1		1	1												
FY 2014				FY 2015				FY 2016				FY 2017				To Complete	Totals			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
																				4
																				4

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME: 0 months

Contract Dates: FY 2010 -

FY 2011 -

FY 2012 -

Delivery Dates: FY 2010 -

FY 2011 -

FY 2012 -

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): Patriot Spares - Pure Fleet/Grow the Army [MOD 8] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RD&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		50.7		159.1																209.8
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Contractor Logistics Support																				
<b>Installation of Hardware</b>																				
FY 2007 & Prior Equip -- Kits																				
FY 2008 -- Kits																				
FY 2009 Equip -- Kits																				
FY 2010 Equip -- Kits																				
FY 2011 Equip -- Kits																				
FY 2012 Equip -- Kits																				
FY 2013 Equip -- Kits																				
FY 2014 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total Procurement Cost		50.7		159.1		0.0		0.0		0.0		0.0		0.0		0.0		0.0		209.8





**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): Radar Digital Processor (RDP) [MOD 9] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RD&amp;E</b>																				
<b>Procurement</b>													34	60.6	33	59.0			67	119.6
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring														3.5		3.1				6.6
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment													0.3			0.3				0.6
Support Equipment																				
Other													2.8			2.4				5.2
Contractor Logistics Support													1.4			1.4				2.8
<b>Installation of Hardware</b>																				
FY 2008 & Prior Equip -- Kits																				
FY 2009 -- Kits																				
FY 2010 Equip -- Kits																				
FY 2011 Equip -- Kits																				
FY 2012 Equip -- Kits																				
FY 2013 Equip -- Kits																				
FY 2014 Equip -- Kits																				
FY 2015 Equip -- Kits																16		51		67
TC Equip- Kits																				
Total Installment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	16	0.0	51	0.0	67	0.0
Total Procurement Cost		0.0		0.0		0.0		0.0		0.0		0.0		68.6		66.2		0.0		134.8

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 3 / Modification of missiles

P-1 Item Nomenclature  
ITAS/TOW MODS (C61700)

Program Elements for Code B Items: Code: Other Related Program Elements:

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost	897.3	136.7	7.0	53.9	13.6					1108.5
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	897.3	136.7	7.0	53.9	13.6					1108.5
Initial Spares										
Total Proc Cost	897.3	136.7	7.0	53.9	13.6					1108.5
Flyaway U/C										
Weapon System Proc U/C										

**Description:**  
The Improved Target Acquisition System (ITAS) 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 is a replacement for the Light Infantry's TOW 2 weapon system, and it provides the capability to defeat armored vehicles, bunkers, and buildings at extended ranges in all battlefield conditions. Far Target Locator (cut into production in FY 2006) adds a GPS based position and attitude determination subsystem to ITAS, enabling the system to generate a 10 digit grid coordinate of a target location. ITAS is integrated into the Stryker Anti-Tank Guided Missile (ATGM) vehicle of the SBCT anti-tank company. ITAS provides a surrogate precision assault capability for the SBCT infantry battalions until the Mobile Gun System (MGS) becomes available. 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. ITAS is replacing all of the United States Marine Corps (USMC) ground TOW systems, and it has been sold to FMS customers. Canada and Portugal have purchased ITAS for their forces. ITAS continues to be the weapon of choice in precision combat engagements in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF).

**Justification:**  
FY 2011 Base procurement dollars in the amount of \$13.281 million procures fielding, new equipment training, government and contractor project management, system engineering, and data.  
FY 2011 OCO procurement dollars in the amount of \$40.600 million replaces known and projected losses of ITAS systems in support of Overseas Contingency Operations.

<b>Exhibit P-40M, Budget Item Justification Sheet</b>	Date: February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 3 / Modification of missiles	P-1 Item Nomenclature ITAS/TOW MODS (C61700)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
------------------------------------	-------	---------------------------------

Description		Fiscal Years									
OSIP No.	Classification	Prior Yrs.	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TC	Total
ITAS (IMPROVED TARGET ACQUISITION SYSTEM) [MOD 1]											
MC-1-89-03-3028	OPERATIONAL	897.3	136.7	7.0	53.9	13.6	0.0	0.0	0.0	0.0	1108.5
<b>Totals</b>		897.3	136.7	7.0	53.9	13.6	0.0	0.0	0.0	0.0	1108.5

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: ITAS (IMPROVED TARGET ACQUISITION SYSTEM) [MOD 1] [MOD 2] MC-1-89-03-3028

MODELS OF SYSTEM AFFECTED:

DESCRIPTION / JUSTIFICATION:

The Improved Target Acquisition System (ITAS) 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 is a replacement for the Light Infantry's TOW 2 weapon system, and it provides the capability to defeat armored vehicles, bunkers, and buildings at extended ranges in all battlefield conditions. Far Target Locator (cut into production in FY 2006) adds a GPS based position and attitude determination subsystem to ITAS, enabling the system to generate a 10 digit grid coordinate of a target location. ITAS is integrated into the Stryker Anti-Tank Guided Missile (ATGM) vehicle of the SBCT anti-tank company. ITAS provides a surrogate precision assault capability for the SBCT infantry battalions until the Mobile Gun System (MGS) becomes available. 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. ITAS is replacing all of the United States Marine Corps (USMC) ground TOW systems, and it has been sold to FMS customers. Canada and Portugal have purchased ITAS for their forces. ITAS continues to be the weapon of choice in precision combat engagements in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Installation Schedule

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
1239	138	93	50	32							6	15	15	15	5						
863	42	41	39	54	52	36	44	114	137	72	39	19								11	15
	FY 2014				FY 2015				FY 2016				FY 2017				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
																					1608
	15	15																			1608

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME:

0 months

Contract Dates:

FY 2010 - NA

FY 2011 - NA

FY 2012 - NA

Delivery Dates:

FY 2010 - NA

FY 2011 - NA

FY 2012 - NA

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): ITAS (IMPROVED TARGET ACQUISITION SYSTEM) [MOD 1] [MOD 2] MC-1-89-03-3028

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RD&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity	1494		58				56												1608	
Equipment		733.8		106.7				40.6												881.1
Fielding		29.9		1.0		2.0		8.0		8.1										49.0
Project Management		40.7		15.1		4.9		5.2		5.4										71.3
Data		1.5		0.1		0.1		0.1		0.1										1.9
Training Equipment		46.9		6.6																53.5
Production Line Restart		3.7																		3.7
Initial Spares		40.8		7.2																48.0
<b>Installation of Hardware</b>																				
FY 2007 & Prior Equip -- Kits	863		176		65														1104	
FY 2008 -- Kits					181		209												390	
FY 2009 Equip -- Kits							58												58	
FY 2010 Equip -- Kits																				
FY 2011 Equip -- Kits											56								56	
FY 2012 Equip -- Kits																				
FY 2013 Equip -- Kits																				
FY 2014 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	863	0.0	176	0.0	246	0.0	267	0.0	0	0.0	56	0.0	0	0.0	0	0.0	0	0.0	1608	0.0
Total Procurement Cost		897.3		136.7		7.0		53.9		13.6		0.0		0.0		0.0		0.0		1108.5

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 3 / Modification of missiles

P-1 Item Nomenclature  
MLRS MODS (C67500)

Program Elements for Code B Items: Code: Other Related Program Elements:  
C67501, C65900, 0603778A093

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost	342.8	1.9	22.4	8.2	8.3	6.9	14.2	14.4	158.4	577.5
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	342.8	1.9	22.4	8.2	8.3	6.9	14.2	14.4	158.4	577.5
Initial Spares	21.3	1.0	1.0	1.0	1.0	1.1	1.1	1.1	24.2	52.8
Total Proc Cost	364.1	2.9	23.4	9.2	9.3	8.0	15.3	15.5	182.6	630.3
Flyaway U/C										
Weapon System Proc U/C										

**Description:**  
The M270A1 upgraded Multiple Launch Rocket System (MLRS) launcher provides critical missile precision strike operational shaping fires and counterfire and close support destructive and suppressive fires. The M270A1 upgraded MLRS launcher consists of a M993A1 carrier, a derivative of the Bradley Fighting Vehicle (BFV) carrier, and the M269A1 Launcher Loader Module (LLM). The system is capable of firing the MLRS Family of Munitions (MFOM) to include the Guided Multiple Launcher Rocket System (GMLRS), and the Army Tactical Missile System (ATACMS) Family of Munitions (AFOM), including precision munitions, to a range of 300 kilometers. The M270A1 is capable of firing either 12 MFOM rockets or 2 AFOM missiles from a single launcher. Additional material changes will provide operational flexibility and capability against an expanded target set.

**Justification:**  
FY 2011 procures Enhanced Command and Control (C2), Driver's Vision Enhancement (DVE), M993A1 Carrier Upgrades, Obsolescence Mitigation/Engineering Change Proposal Integration, and other hardware and software required in support of launcher upgrades.

Exhibit P-40M, Budget Item Justification Sheet										Date: February 2010	
Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 3 / Modification of missiles					P-1 Item Nomenclature MLRS MODS (C67500)						
Appropriation / Budget Activity / Serial No:					P-1 Item Nomenclature						
Program Elements for Code B Items:						Code:		Other Related Program Elements: C67501, C65900, 0603778A093			
Description		Fiscal Years									
OSIP No.	Classification	Prior Yrs.	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TC	Total
Inactive Mods											
Prior Year MCs	Oper/Safety/Reliab	291.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	291.7
Global Positioning System (GPS) Upgrades											
1-04-02-0568	Operational	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Obsolescence Mitigation/ECP Reliability Intg											
1-99-03-Obsc	Oper/Reliab	31.3	0.3	1.0	1.3	1.6	4.9	7.9	6.2	146.4	200.9
M993A1 Carrier Upgrades											
1-04-02-0567	Reliability	5.1	0.3	1.4	0.5	0.3	0.1	0.0	0.0	0.0	7.8
Auxiliary Power Unit/Environmental Control Unit											
1-02-02-0552	Operational	14.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6
Enhanced Command & Control (C2)											
1-06-02-0572	Operational	0.0	0.0	13.2	5.9	6.4	1.9	0.2	0.0	0.0	27.5
Up Armor											
1-08-02-0573	Crew Survivability	0.0	0.0	0.0	0.0	0.0	0.0	6.1	8.2	12.0	26.3
Driver's Vision Enhancement (DVE)											
1-09-02-0575	Operational	0.0	0.0	6.8	0.5	0.0	0.0	0.0	0.0	0.0	7.3
Totals		342.8	1.9	22.4	8.2	8.3	6.9	14.2	14.4	158.4	577.5



**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: Enhanced Command & Control (C2) [MOD 6] 1-06-02-0572

MODELS OF SYSTEM AFFECTED: Multiple Launch Rocket System (MLRS)

**DESCRIPTION / JUSTIFICATION:**

The current on-board fire control system for the M270A1 Launcher lacks the necessary Command & Control (C2) functions to meet the emerging threat found within the theater of operations for Operation Iraqi Freedom (OIF)/Operation Enduring Freedom (OEF). This requirement results in increased operational flexibility with the ability to reduce the fire support footprint, and reduce the sensor-to-shooter timeline. This increased capability will eliminate the need for Field Artillery C2 nodes in close proximity to launchers, allow timely precision strikes, and be capable of integrating with Joint assets. The effort also provides increased situational awareness on the battlefield. This enhancement will consist of adding High Frequency (HF) radios and antennas.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):**

Enhanced C2s capability of long range communications and situational awareness has been developed and integrated on both the M270A1 and HIMARS launcher platforms. This capability is currently being evaluated by the user under a safety release. System level testing of this initial capability will begin in 2QTR10.

**Installation Schedule**

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
									31	31	31	32	9	9	9	10	13	13	14	14
										38	38	49			19	18		19	19	16

  

FY 2014				FY 2015				FY 2016				FY 2017				To Complete	Totals
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
9																	225
	9																225

METHOD OF IMPLEMENTATION: Depot      ADMINISTRATIVE LEADTIME: 3 months      PRODUCTION LEADTIME: 9 months  
 Contract Dates: FY 2010 - Jan 10      FY 2011 - Jan 11      FY 2012 - Jan 12  
 Delivery Dates: FY 2010 - Oct 10      FY 2011 - Oct 11      FY 2012 - Oct 12

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): Enhanced Command & Control (C2) [MOD 6] 1-06-02-0572

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RD&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment					125	13.2	37	3.9	54	5.8	9	1.0							225	23.9
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
<b>Installation of Hardware</b>																				
FY 2007 & Prior Equip -- Kits																				
FY 2008 -- Kits																				
FY 2009 Equip -- Kits																				
FY 2010 Equip -- Kits							125	2.0											125	2.0
FY 2011 Equip -- Kits									37	0.6									37	0.6
FY 2012 Equip -- Kits											54	0.9							54	0.9
FY 2013 Equip -- Kits													9	0.2					9	0.2
FY 2014 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	0	0.0	0	0.0	0	0.0	125	2.0	37	0.6	54	0.9	9	0.2	0	0.0	0	0.0	225	3.7
Total Procurement Cost		0.0		0.0		13.2		5.9		6.4		1.9		0.2		0.0		0.0		27.5

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: Driver's Vision Enhancement (DVE) [MOD 8] 1-09-02-0575

MODELS OF SYSTEM AFFECTED: Multiple Launch Rocket System (MLRS)

**DESCRIPTION / JUSTIFICATION:**

The Drivers Vision Enhancement (DVE) modification utilizes a vehicle mounted thermal vehicle sensor and driver's display that significantly improves the crews survivability and situational awareness. The DVE displays thermal contrast among objects and can deliver accurate images through dust, smoke, fog, or darkness. Troops equipped with DVE can easily detect personnel, vehicles, road hazards, and threat activity.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):**

Preliminary integration of the DVE system has been conducted on the M270A1 MLRS. This preliminary integration effort confirmed the feasibility and utility of fully integrating DVEs to dramatically enhance crew survivability and situational awareness. The DVE is a non developmental item and final integration plans are complete.

**Installation Schedule**

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
									56	56	56	57								
									76	76	76	73								
	FY 2014				FY 2015				FY 2016				FY 2017				To	Totals		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete			
																		225		
																		225		

**METHOD OF IMPLEMENTATION:**

**ADMINISTRATIVE LEADTIME:**

3 months

**PRODUCTION LEADTIME:** 9 months

Contract Dates:

FY 2010 - Jan 10

FY 2011 -

FY 2012 -

Delivery Dates:

FY 2010 - Oct 10

FY 2011 -

FY 2012 -

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): Driver's Vision Enhancement (DVE) [MOD 8] 1-09-02-0575

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
<b>RD&amp;E</b>																					
<b>Procurement</b>																					
Kit Quantity																					
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment					225	6.8													225	6.8	
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
<b>Installation of Hardware</b>																					
FY 2008 & Prior Equip -- Kits																					
FY 2009 -- Kits																					
FY 2010 Equip -- Kits							225	0.5											225	0.5	
FY 2011 Equip -- Kits																					
FY 2012 Equip -- Kits																					
FY 2013 Equip -- Kits																					
FY 2014 Equip -- Kits																					
FY 2015 Equip -- Kits																					
TC Equip- Kits																					
Total Installment	0	0.0	0	0.0	0	0.0	225	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	225	0.5	
Total Procurement Cost		0.0		0.0		6.8		0.5		0.0		0.0		0.0		0.0		0.0			7.3

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 3 / Modification of missiles

P-1 Item Nomenclature  
HIMARS MODIFICATIONS (C67501)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

C02901, 0603778A090, 0603778A093, C67500

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost	47.8	33.1	70.9	39.4	9.8	6.4	6.6	6.7	204.7	425.4
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	47.8	33.1	70.9	39.4	9.8	6.4	6.6	6.7	204.7	425.4
Initial Spares	2.4	1.1	1.8	1.9	1.9	1.9	2.0	2.0	50.5	65.4
Total Proc Cost	50.1	34.2	72.7	41.2	11.7	8.3	8.6	8.7	255.3	490.8
Flyaway U/C										
Weapon System Proc U/C										

**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, decrease Operations and Support costs, reduce logistical impacts, resolve safety issues, and mitigate obsolescence. Additional material changes will provide operational flexibility, and capability against an expanded target set.

**Justification:**

FY 2011 Base procurement dollars in the amount of \$39.371 million support the ICP Cab, Enhanced Command and Control (C2), and the Universal Fire Control Systems (UFCS) modification programs.

Exhibit P-40M, Budget Item Justification Sheet										Date: February 2010	
Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 3 / Modification of missiles					P-1 Item Nomenclature HIMARS MODIFICATIONS (C67501)						
Appropriation / Budget Activity / Serial No:					P-1 Item Nomenclature						
Program Elements for Code B Items:						Code:		Other Related Program Elements: C02901, 0603778A090, 0603778A093, C67500			
Description		Fiscal Years									
OSIP No.	Classification	Prior Yrs.	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TC	Total
Enhanced Command and Control (C2)											
1-06-02-0571	Operational	0.0	0.0	19.3	14.3	2.1	0.0	0.0	0.0	0.0	35.7
Universal Fire Control System											
1-05-02-0568	Operational	24.1	8.7	6.7	0.0	0.0	0.0	0.0	0.0	0.0	39.5
Increased Crew Protection (ICP) Cab											
1-05-02-0569	Crew Survivability	9.2	21.7	41.6	22.3	5.2	0.2	0.0	0.0	0.0	100.1
Reliability/Obsolescence Mitigation											
1-03-02-0556	Oper/Reliab/Safety	10.9	2.6	3.3	2.8	2.5	6.2	6.6	6.7	204.7	246.3
PNU/GPS Upgrades											
1-04-02-0569	Operational	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Add on Armor (AoA)											
1-05-02-0570	Crew Survivability	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Totals		47.8	33.1	70.9	39.4	9.8	6.4	6.6	6.7	204.7	425.4

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: Enhanced Command and Control (C2) [MOD 1] 1-06-02-0571

MODELS OF SYSTEM AFFECTED: High Mobility Artillery Rocket System (HIMARS)

**DESCRIPTION / JUSTIFICATION:**

The current on-board fire control system for the M142 HIMARS Launcher lacks the necessary Command & Control (C2) functions to meet the emerging threat found within the theater of operations for Operation Iraqi Freedom /Operation Enduring Freedom. This requirement results in increased operational flexibility with the ability to reduce the fire support footprint, and reduce the sensor-to-shooter timeline. This increased capability will eliminate the need for Field Artillery C2 nodes in close proximity to launchers, allow timely precision strikes, and will be capable of integrating with Joint assets. The effort also provides increased situational awareness on the battlefield. This enhancement will consist of adding High Frequency radios and antennas.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):**

Enhanced C2s capability of long range communications and situational awareness has been developed and integrated on both the M270A1 and HIMARS launcher platforms. This capability is currently being evaluated by the user under a safety release. System level testing of this initial capability will begin in 2QTR10.

**Installation Schedule**

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
									61	61	61	61	61	51	19					
									38	57	76	73	38	19	38	36				
	FY 2014				FY 2015				FY 2016				FY 2017				To	Totals		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete			
																		375		
																		375		

**METHOD OF IMPLEMENTATION:** Depot      **ADMINISTRATIVE LEADTIME:** 3 months      **PRODUCTION LEADTIME:** 9 months  
**Contract Dates:** FY 2010 - Jan 10      FY 2011 - Jan 11      FY 2012 -  
**Delivery Dates:** FY 2010 - Oct 10      FY 2011 - Oct 11      FY 2012 -

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): Enhanced Command and Control (C2) [MOD 1] 1-06-02-0571

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
<b>RD&amp;E</b>																					
<b>Procurement</b>																					
Kit Quantity																					
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment					244	19.3	131	10.4												375	29.7
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
<b>Installation of Hardware</b>																					
FY 2007 & Prior Equip -- Kits																					
FY 2008 -- Kits																					
FY 2009 Equip -- Kits																					
FY 2010 Equip -- Kits							244	3.9												244	3.9
FY 2011 Equip -- Kits									131	2.1										131	2.1
FY 2012 Equip -- Kits																					
FY 2013 Equip -- Kits																					
FY 2014 Equip -- Kits																					
TC Equip- Kits																					
Total Installment	0	0.0	0	0.0	0	0.0	244	3.9	131	2.1	0	0.0	0	0.0	0	0.0	0	0.0	375	6.0	
Total Procurement Cost		0.0		0.0		19.3		14.3		2.1		0.0		0.0		0.0		0.0			35.7



**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: Universal Fire Control System [MOD 2] 1-05-02-0568

MODELS OF SYSTEM AFFECTED: High Mobility Artillery Rocket System (HIMARS)

**DESCRIPTION / JUSTIFICATION:**

The Universal Fire Control System is an upgrade providing improvements to the current M142 HIMARS Launcher's Improved Fire Control System. This program is required to mitigate HIMARS Full Rate Production (FRP) obsolescence issues with the Power Personal Computer 2 Executive Processor (PPC2EP) Circuit Card Assembly (CCA) and the 10 Base 2 system interface. This modification will reduce the quantity of executive processor circuit cards, eliminate an unused MIL-STD-1553 system bus interface, and eliminate other components such as the Tactical Processor Unit (TPU), Mass Storage Unit, and the Programmable Communications Controller circuit card. The addition of a 10/100 Base T system interface provides future growth for obsolescence mitigation and operational concerns. Replacing the PPC2EP CCA with the PPC7ECP (Power Personal Computer 7 Executive Processor) CCA, the fire control system will mitigate obsolescence to both future productions and fielded launchers and will reduce the number of CCA required to support the fleet. By decreasing the Line Replaceable Units (LRU) and CCA's, there will be reduced Operational and Support costs, reduced electrical power requirements and increased vehicle space and stowage availability. The procurement effort is planned for the acquisition of a total of 121 kits for the M142 HIMARS Launchers covering launchers bought from Low Rate Initial Production Years 1-3 and FRP Year 1.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):**

A contract modification was signed in 2QFY05, which authorized engineering development of the Universal Fire Control System. The Preliminary Design Review (PDR) took place in 3QFY05 and the Critical Design Review occurred in 4QFY05. LRU qualification tests were conducted in FY07. Functional Configuration Audits are complete and system level tests were conducted in 2QFY08. The Universal Fire Control System was cut into FRP2 in FY08.

**Installation Schedule**

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
20	10	10	10	10	16	15	15	15	10	10	9	9								
20			19	21		19	19	23			19	19								
	FY 2014				FY 2015				FY 2016				FY 2017				To	Totals		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete			
																		159		
																		159		

METHOD OF IMPLEMENTATION: Depot ADMINISTRATIVE LEADTIME: 3 months PRODUCTION LEADTIME: 13 months  
 Contract Dates: FY 2010 - Nov 10 FY 2011 - FY 2012 -  
 Delivery Dates: FY 2010 - Dec 11 FY 2011 - FY 2012 -

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): Universal Fire Control System [MOD 2] 1-05-02-0568

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RD&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity	60	1.4	61	1.4	38	0.1													159	2.9
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment	32	6.0	55	6.5	38	6.6													125	19.1
Equipment, Nonrecurring	34	16.4																	34	16.4
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment	17	0.3	32	0.8															49	1.1
Other																				
Interim Contractor Support																				
<b>Installation of Hardware</b>																				
FY 2007 & Prior Equip -- Kits	20																		20	
FY 2008 -- Kits			40																40	
FY 2009 Equip -- Kits					61														61	
FY 2010 Equip -- Kits							38												38	
FY 2011 Equip -- Kits																				
FY 2012 Equip -- Kits																				
FY 2013 Equip -- Kits																				
FY 2014 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	20	0.0	40	0.0	61	0.0	38	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	159	0.0
Total Procurement Cost		24.1		8.7		6.7		0.0		0.0		0.0		0.0		0.0		0.0		39.5

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE: Increased Crew Protection (ICP) Cab [MOD 3] 1-05-02-0569

MODELS OF SYSTEM AFFECTED: High Mobility Artillery Rocket System (HIMARS)

**DESCRIPTION / JUSTIFICATION:**

The original M142 HIMARS launcher cab did not meet the Army policy to provide armor protection for all tactical wheeled vehicles. The HIMARS vehicle and cab is a derivative of the Family of Medium Tactical Vehicles (FMTV) and the FMTV initial design required no ballistic protection to its vehicles. Based on the results of Operation Iraqi Freedom/Operation Enduring Freedom the need for the cab to be protected against specified threats was validated. In addition to common threats to tactical wheel vehicles, protection against the launcher blast and foreign object debris is also required. Without this modification the HIMARS crew will lack adequate crew protection from IEDs and other ballistic threats.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):**

Development of the ICP Cab began 1QFY06 and was initiated with engineering trade-off analyses to determine the best technical approach over the ballistic protection needs and the mobility/vehicle weight restrictions of the M142 Launcher / M1140 FMTV Carrier. The System Requirements Review In-Process Review occurred in 4QFY06 and the Preliminary Design Review took place in 1QFY07. The Critical Design Review occurred in 3QFY07. Full Development for this program will complete in FY09. The ICP cab design has completed all required system level testing. The ICP cab is currently being produced on Full Rate Production (FRP) 4.

**Installation Schedule**

Pr Yr Totals	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
	5	5	5	4	13	13	12	12	24	24	24	23	12	12	12	12	10				
				19			38	12		38	19	38		19		29		10			
	FY 2014				FY 2015				FY 2016				FY 2017				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
																					222
																					222

METHOD OF IMPLEMENTATION: Depot      ADMINISTRATIVE LEADTIME: 3 months      PRODUCTION LEADTIME: 9 months  
 Contract Dates: FY 2010 - Jan 10      FY 2011 - Jan 11      FY 2012 - Jan 12  
 Delivery Dates: FY 2010 - Oct 10      FY 2011 - Oct 11      FY 2012 - Oct 12

**INDIVIDUAL MODIFICATION**

Date: February 2010

MODIFICATION TITLE (cont): Increased Crew Protection (ICP) Cab [MOD 3] 1-05-02-0569

FINANCIAL PLAN: (\$ in Millions)

	Prior Yrs.		2009		2010		2011		2012		2013		2014		2015		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
<b>RD&amp;E</b>																					
<b>Procurement</b>																					
Kit Quantity																					
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment	19	9.2	50	21.2	95	40.8	48	20.7	10	4.4									222	96.2	
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other				0.5																	0.5
Interim Contractor Support																					
<b>Installation of Hardware</b>																					
FY 2007 & Prior Equip -- Kits			19																	19	
FY 2008 -- Kits																					
FY 2009 Equip -- Kits					50	0.8														50	0.8
FY 2010 Equip -- Kits							95	1.6												95	1.6
FY 2011 Equip -- Kits									48	0.8										48	0.8
FY 2012 Equip -- Kits											10	0.2								10	0.2
FY 2013 Equip -- Kits																					
FY 2014 Equip -- Kits																					
TC Equip- Kits																					
Total Installment	0	0.0	19	0.0	50	0.8	95	1.6	48	0.8	10	0.2	0	0.0	0	0.0	0	0.0	222	3.4	
Total Procurement Cost		9.2		21.7		41.6		22.3		5.2		0.2		0.0		0.0		0.0			100.1

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 3 / Modification of missiles  
 P-1 Item Nomenclature: HELLFIRE Modifications (C71500)

Program Elements for Code B Items: Code: Other Related Program Elements:

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost	20.6		0.0	0.0						20.6
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	20.6		0.0	0.0						20.6
Initial Spares										
Total Proc Cost	20.6		0.0	0.0						20.6
Flyaway U/C										
Weapon System Proc U/C										

**Description:**  
 The HELLFIRE family of air-to-ground missiles provides precision kill capability against heavy, advanced armor and individual hard point targets. Laser HELLFIRE uses semi-active laser terminal guidance and is the primary anti-tank armament of the AH 64 Apache, OH-58 Kiowa Warrior, and special operations helicopters. Longbow HELLFIRE is a missile system that provides the Army with a fire-and-forget, anti-armor capability for the Apache Longbow and future helicopters. The fire-and-forget Longbow HELLFIRE system greatly increases aircraft survivability and dramatically improves target acquisition and engagement capabilities in adverse weather when the battlefield is obscured (smoke, fog, dust), and when the threat is using countermeasures. The HELLFIRE modifications will convert the existing missile variants from the current configuration to a new variant to support the warfighters immediate operational requirements. These modifications could include, but would not be limited to, retro fits, warhead conversions, software modifications, modifications to systems performance and alternative platforms.

**Justification:**  
 Note: There is \$.010 million of funds in FY11, supporting Hellfire Modifications and keeping the budget line open.

<b>Exhibit P-40M, Budget Item Justification Sheet</b>	Date: February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 3 / Modification of missiles	P-1 Item Nomenclature HELLFIRE Modifications (C71500)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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Description		Fiscal Years									
OSIP No.	Classification	Prior Yrs.	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TC	Total
Unmanned Aerial Systems (UAS) Conversions											
0-00-00-0000	Added Capability	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
Rocket Motor Refit											
0-00-00-0000	Operational	12.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6
Totals		17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 4 / Spares and repair parts

P-1 Item Nomenclature  
SPARES AND REPAIR PARTS (CA0250)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost	244.2	25.9	22.3	19.6	10.6	10.9	11.0	10.1	165.2	519.7
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	244.2	25.9	22.3	19.6	10.6	10.9	11.0	10.1	165.2	519.7
Initial Spares										
Total Proc Cost	244.2	25.9	22.3	19.6	10.6	10.9	11.0	10.1	165.2	519.7
Flyaway U/C										
Weapon System Proc U/C										

**Description:**

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

**Justification:**

The funds in this account procure depot level reparable (DLR) secondary items from the Supply Management, Army activity of the Army Working Capital Fund. To provide initial support, funds are normally required in the same year that end items are fielded. FY 2011 funds will procure Patriot Mods, MLRS Mods, and HIMARS/HIMARS Mods initial spares.

FY 11 (\$M)

HIMARS	\$ 9.706
HIMARS Mods	1.856
MLRS Mods	1.014
Patriot Mods	6.993
Total	\$19.569

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:  
Missile Procurement, Army / 5 / Support equipment and facilities

P-1 Item Nomenclature  
AIR DEFENSE TARGETS (C93000)

Program Elements for Code B Items: Code: Other Related Program Elements:

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost	398.1	6.4	4.2	3.6	3.7	3.8	3.8	3.9	Continuing	Continuing
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	398.1	6.4	4.2	3.6	3.7	3.8	3.8	3.9	Continuing	Continuing
Initial Spares	1.3									1.3
Total Proc Cost	399.4	6.4	4.2	3.6	3.7	3.8	3.8	3.9	Continuing	Continuing
Flyaway U/C										
Weapon System Proc U/C									Continuing	Continuing

**Description:**  
The Air Defense Artillery (ADA) Targets program provides target hardware, scoring ancillary equipment, payload equipment and ground support equipment for worldwide active Army and National Guard Air Defense Artillery training. This training consists of DA Pamphlet 350-38 (Standards in Training Commission) required gunnery tables and aerial target tracking, training and scoring.

**Justification:**  
FY11 base procurement dollars of \$3.613 million procures Air Defense Artillery Targetry and ancillary hardware consisting of scoring devices, aerial payloads and ground support equipment in support of DA PAM 350-38, Standards in Training Commission (STRAC) derived required gunnery tables, aerial target tracking (Captive Flight Trainer (CFT) and Tracking Head Trainer (THT)) training as well as targets for Missile Live Fire training when missiles are allocated IAW the Missile Distribution Plan (MIDP). These targets support the 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 are essential to qualify soldiers in support of unit readiness.



<b>Exhibit P-5, Weapon MSLS Cost Analysis</b>	Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 5 / Support equipment and facilities	P-1 Line Item Nomenclature: AIR DEFENSE TARGETS (C93000)	Weapon System Type:	Date: February 2010
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MSLS Cost Elements	ID CD	FY 09			FY 10			FY 11		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
<b>HARDWARE</b>										
Remotely Piloted Vehicle Target (RPVT)	A	1573	300	5	1560	260	6	1225	175	7
Scoring (Sensors)	A	1125	250	5	375	75	5	300	50	6
Ground Station	A	660	6	110						
RPVT Beyond Visual Range (BVR) Payload	A	62	6	10	220	20	11	240	20	12
Scoring (Airborne Kit)	A	1287	93	14	450	30	15	320	20	16
<b>HARDWARE COSTS</b>		<b>4707</b>			<b>2605</b>			<b>2085</b>		
<b>SUPPORT</b>										
Program Management Support		1284			1270			1218		
Logistics/Field Svc Support		290			300			310		
Hardware Qualification Test		142								
<b>SUPPORT COSTS</b>		<b>1716</b>			<b>1570</b>			<b>1528</b>		
<b>Total:</b>		<b>6423</b>			<b>4175</b>			<b>3613</b>		

# Exhibit P-5a, Budget Procurement History and Planning

Date:  
February 2010

Appropriation/Budget Activity/Serial No: Missile Procurement, Army/ 5/ Support equipment and facilities		Weapon System Type:	P-1 Line Item Nomenclature: AIR DEFENSE TARGETS (C93000)								
WBS Cost Elements:	Contractor and Location		Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Remotely Piloted Vehicle Target (RPVT)</b>											
FY 2009	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	May 09	Aug 09	300	5	YES		Aug 08
FY 2010	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	Mar 10	Jun 10	260	6	YES		
FY 2011	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	Mar 11	Jun 11	175	7	YES		
<b>Scoring (Sensors)</b>											
FY 2009	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	May 09	Jul 09	250	5	YES		Aug 08
FY 2010	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	Mar 10	Jun 10	75	5	YES		
FY 2011	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	Mar 11	Jun 11	50	6	YES		
<b>Ground Station</b>											
FY 2009	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	May 09	Jul 09	6	110	YES		Aug 08
<b>RPVT Beyond Visual Range (BVR) Payload</b>											
FY 2009	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	May 09	Jul 09	6	10	YES		Aug 08
FY 2010	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	Mar 10	Jun 10	20	11	YES		
FY 2011	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	Mar 11	Jun 11	20	12	YES		
<b>Scoring (Airborne Kit)</b>											
FY 2009	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	May 09	Aug 09	93	14	YES		Aug 08
FY 2010	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	Mar 10	Jun 10	30	15	YES		
FY 2011	Griffon Aerospace Inc. Madison, AL		C/FFP	AMCOM	Mar 11	Jun 11	20	16	YES		

REMARKS:

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No:

Missile Procurement, Army / 5 / Support equipment and facilities

P-1 Item Nomenclature

ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost	42.7	0.0	1.2	1.2	1.5	1.5	1.5	1.5		51.2
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	42.7	0.0	1.2	1.2	1.5	1.5	1.5	1.5		51.2
Initial Spares										
Total Proc Cost	42.7	0.0	1.2	1.2	1.5	1.5	1.5	1.5		51.2
Flyaway U/C										
Weapon System Proc U/C										

**Description:**

Provides for the procurement of various tools and shop sets to support the Army's missile systems worldwide.

**Justification:**

Funding will procure tools and shop sets to support Patriot, TOW, Multiple Launch Rocket System (MLRS), High Mobility Artillery Rocket System (HIMARS), and Avenger.

<b>Exhibit P-5, Weapon MSLS Cost Analysis</b>	Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 5 / Support equipment and facilities	P-1 Line Item Nomenclature: ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)	Weapon System Type:	Date: February 2010
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<b>MSLS Cost Elements</b>	ID	<b>FY 09</b>			<b>FY 10</b>			<b>FY 11</b>		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>Various Systems:</b> Shop Sets / Tools		10			1174			1208		
<b>Total:</b>		<b>10</b>			<b>1174</b>			<b>1208</b>		

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 2010

Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 5 / Support equipment and facilities  
 P-1 Item Nomenclature PRODUCTION BASE SUPPORT (CA0100)

Program Elements for Code B Items: Code: Other Related Program Elements:

	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost	630.4	4.1	4.4	4.5	5.1	5.2	5.3	5.4		664.3
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	630.4	4.1	4.4	4.5	5.1	5.2	5.3	5.4		664.3
Initial Spares										
Total Proc Cost	630.4	4.1	4.4	4.5	5.1	5.2	5.3	5.4		664.3
Flyaway U/C										
Weapon System Proc U/C										

**Description:**  
 This program provides Production Base Support and Equipment Replacement (PSR) of Government-owned equipment used in production and production testing of missile systems or missile components.

**Justification:**  
 FY 2011 funds will be used to establish, modernize, expand or replace Army-owned industrial facilities. These funds are essential to sustain the Army's missile warhead production capability to eliminate safety hazards by replacing worn equipment, and to refurbish facilities.

<b>Exhibit P-40, Budget Item Justification Sheet</b>	Date: February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 5 / Support equipment and facilities	P-1 Item Nomenclature PIF FOR OTHER (CA4002)
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Program Elements for Code B Items:		Code:	Other Related Program Elements:							
	Prior Years	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										
Gross Cost	331.9	4.1	4.4	4.5	5.1	5.1	5.2	5.3	Continuing	Continuing
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	331.9	4.1	4.4	4.5	5.1	5.1	5.2	5.3	Continuing	Continuing
Initial Spares										
Total Proc Cost	331.9	4.1	4.4	4.5	5.1	5.1	5.2	5.3	Continuing	Continuing
Flyaway U/C										
Weapon System Proc U/C									Continuing	Continuing

<b>P-40 Breakdown</b>									
Area		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	
Active	Qty	0	0	0	0	0	0	0	0
	Gross Cost	4106.0	4384.0	4510.0	5052.0	5141.0	5225.0	5309.0	
National Guard	Qty	0	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserve	Qty	0	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Qty	0	0	0	0	0	0	0	0
	Gross Cost	4106	4384	4510	5052	5141	5225	5309	

**Description:**  
This program provides funding to the Army Test and Evaluation Command (ATEC), Developmental Test Command (DTC) to establish, modernize, expand or replace test facilities used in production testing of missiles and missile components. It sustains Army production test capabilities through upgrade and replacement of instrumentation and equipment that is technologically and/or economically obsolete. Modernization of test instrumentation and equipment provides increased automation and efficiencies, improved data quality and quantity and cost avoidances to Army Program Managers. Programmed funding will be used to upgrade or replace production test instrumentation and equipment at the Redstone Test Center (RTC), Huntsville, AL and White Sands Missile Range (WSMR), NM.

Iowa Army Ammunition Plant (AAP): This program provides funding for Iowa Army Ammunition Plant's (AAP's) continuing modernization of production capability for missile end items.

**Justification:**  
ATEC: FY 11 Base procurement dollars in the amount of \$2.211 million supports the following: At RTC, it will provide for state-of-the-art instrumentation to control and monitor temperature during shock, impact, and vibration testing of small missile systems; high speed digital data recorders, wideband receivers, and high speed thermal array recorders to receive, record, and display

<b>Exhibit P-40, Budget Item Justification Sheet</b>	Date:  February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 5 / Support equipment and facilities	P-1 Item Nomenclature PIF FOR OTHER (CA4002)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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digital telemetry data streams with embedded missile seeker video for missile flight performance tests; replacement of environmental chamber controllers that are outdated and unsupported; replacement of signal conditioning equipment and fiber optics for rocket motor static firing tests; and optical components such as lens and mirrors, temperature sources, Blackbodies, integrating spheres, rotary table, motion controller, customized software analysis tools and instrumentation to upgrade the current night vision sensor (NVS) test infrastructure. At WSMR, the effort will procure new equipment for the Warheads Test Branch to remotely control and monitor hazardous testing on live ordnance and record test data from a safe distance; multiple types of sensors that collect, record and analyze the physical environments on and near the Launcher during weapon firing events and provide specific test parameters such as temperature, pressure, noise, and vibration during missile pre-launch monitoring; and environmental conditioning chambers used to simulate extreme temperature, humidity, altitude and Microbiological (Fungus) environments. The majority of the instrumentation being upgraded or replaced is obsolete and has met or exceeded its economic life. This instrumentation is required to ensure complete and accurate test data is collected and safety and environmental hazards are minimized. Benefits of this project include increased test efficiencies and decreased costs and risks to Army Program Managers.

Iowa AAP: FY 11 Base procurement dollars in the amount of \$2.299 million supports the purchase and installation of two computer numeric controlled (CNC) drill machines for drilling the body and retaining ring prior to assembly. The current method of drilling requires the body be held in an upside-down position for drilling, increasing the chance that the explosive billet can shift or slide out. The effort will also purchase and install five heat exchangers for warhead presses in Building 4B-22. The existing units are beyond their economic life and difficulties arise when multiple presses are operating simultaneously at different temperatures. This project will provide individual heat exchangers dedicated to each press allowing the presses to run independently and potentially improving the quality of the explosive billet. This effort will rehabilitate the vertical test fire frame work at Firing Station (FS) 6. The current fixture is a very large welded structure, over 30 years old, and is constantly being repaired. It will also replace the existing compressor in Building 1-02 which is antiquated, inadequate for its purpose, and parts are difficult to obtain. This project also supports the reconstruction of the existing lighting protection systems in buildings on Line 1, active explosive area, in order to comply with applicable Army regulations (AR 385-64) and assure safe and secure operations with explosive materials.

<b>Exhibit P-40C, Budget Item Justification Sheet</b>	Date: February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army / 5 / Support equipment and facilities	P-1 Item Nomenclature PIF FOR OTHER (CA4002)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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**Title:**

**Comment:** Benefits of this project include increased test efficiencies and decreased costs and risks to Army Program Managers.

U.S. Army Test and Evaluation Command (ATEC): FY 11 Base procurement dollars in the amount of \$2.211 million supports the equipment used for testing of production missile systems and components. This test instrumentation is used to collect and analyze data on missile safety, reliability and performance.

Iowa AAP: FY 11 Base procurement dollars in the amount of \$2.299 million supports the production capability for missile end items.

PIF FOR OTHER (MISSILE APPROPRIATION - CA4002) (\$M)

LOCATION	PROJECT	FY09	FY10	FY11
Redstone Tech Test Center, Huntsville, AL; White Sands Missile Range, NM	N/A	2.015	2.148	2.211
Iowa AAP, Middletown, IA	6XX5333	2.091	2.236	2.299
<b>TOTAL</b>		<b>4.106</b>	<b>4.384</b>	<b>4.510</b>



<b>Exhibit P-40C, Budget Item Justification Sheet</b>	Date: February 2010
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Appropriation / Budget Activity / Serial No: Missile Procurement, Army/5/Support equipment and facilities	P-1 Item Nomenclature PIF FOR OTHER (CA4002)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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<u>Location</u>	<u>Project Title</u>	<u>Project</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
<u>Production Support</u>					
Iowa Army Ammunition Plant	Production Support Equipment Replacement	6XX5333	2091	2236	2299
	<b>Subtotal - Production</b>		<b>2,091</b>	<b>2,236</b>	<b>2,299</b>
<u>Environmental</u>					
	<b>Subtotal - Environmental</b>		<b>0</b>	<b>0</b>	<b>0</b>
	<b>Total Industrial Facilities</b>		<b>2,091</b>	<b>2,236</b>	<b>2,299</b>

<b>Exhibit P-25, Production Support and Industrial Facilities Cost Analysis (<i>Dollars in Thousands</i>)</b>	1. Date: February 2010
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2. Project Title/Type Production Support Equipment Replacement	3. End Item Supported Model Missile Warheads
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4. Project Number: 6XX5333	5. Annual Capacity Before (1-8-5) N/A	6. Annual Capacity After (1-8-5): N/A
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Element of Cost	FY 09	FY 10	FY 11	H. Facility																
<b>A. Construction Cost</b>		34	45	1. Name: <u>Iowa Army Ammunition Plant</u>																
<b>B. Equipment Cost*</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 Million)	1719	1799	1861	2. Location: <u>Middletown, Iowa</u>																
1.				3. Type (GOGO, GOCO, COCO): <u>GOCO</u>																
2.				<b>I. Related Projects</b>																
3.				<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:10%;">Project Number</th> <th style="width:40%;">Title</th> <th style="width:10%;">FY &amp; Appn</th> <th style="width:10%;">Value (\$ Mil)</th> <th style="width:10%;">Facing</th> <th style="width:10%;">Start Date</th> <th style="width:10%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Project Number	Title	FY & Appn	Value (\$ Mil)	Facing	Start Date	Compl Date									
Project Number	Title	FY & Appn	Value (\$ Mil)	Facing	Start Date	Compl Date														
<b>Subtotal Costs</b>	1719	1799	1861																	
<b>C. Equipment Installation Cost</b>	355	382	372																	
<b>D. Contractor Support Cost</b>	17	21	21																	
<b>E. Corps of Engineers Support Cost</b>																				
<b>F. Other In-House Support Cost</b>																				
<b>Total Facility Project Cost</b>	2091	2236	2299	<b>J. Principal Milestones</b>																
<b>G. Other Costs</b>				<table style="width:100%;"> <tr> <td style="width:80%;"></td> <td style="text-align: right;"><b>Month &amp; Year</b></td> </tr> <tr> <td>    1. Facility Prove-out Cost</td> <td style="text-align: right;"><u>Not Applicable</u></td> </tr> <tr> <td>    2. Material Construction Appn.</td> <td style="text-align: right;"><u>May 2011</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>Mar 2011/Jun 2011</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>Aug 2012</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>Sep 2012</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>Sep 2012</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>Sep 2012</u></td> </tr> </table>		<b>Month &amp; Year</b>	1. Facility Prove-out Cost	<u>Not Applicable</u>	2. Material Construction Appn.	<u>May 2011</u>		<u>Mar 2011/Jun 2011</u>		<u>Aug 2012</u>		<u>Sep 2012</u>		<u>Sep 2012</u>		<u>Sep 2012</u>
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**Narrative Explanation:**  
 FY 11 Base procurement dollars in the amount of \$2.299 million supports numerous efforts at Iowa Army Ammunition Plant to include: the purchase and installation of two computer numeric controlled (CNC) drill machines for drilling the body and retaining ring prior to assembly. The current method of drilling requires the body be held in an upside-down position for drilling, increasing the chance that the explosive billet can shift or slide out. The effort will also purchase and install five heat exchangers for warhead presses in Building 4B-22. The existing units are beyond their economic life and difficulties arise when multiple presses are operating simultaneously at different temperatures. This project will provide individual heat exchangers dedicated to each press allowing the presses to run independently and potentially improving the quality of the explosive billet. This effort will rehabilitate the vertical test fire frame work at Firing Station (FS) 6. The current fixture is a very large welded structure, over 30 years old, and is constantly being repaired. It will also replace the existing compressor in Building 1-02 which is antiquated, inadequate for its purpose, and parts are difficult to obtain. Finally, this project supports the reconstruction of the existing lighting protection systems in buildings on Line 1, active explosive area, in order to comply with applicable Army regulations (AR 385-64) and assure safe and secure operations with explosive materials.