

DEPARTMENT OF THE ARMY

Procurement Programs



Committee Staff Procurement Backup Book
Fiscal Year (FY) 2005 Budget Estimates

MISSILE PROCUREMENT, ARMY

APPROPRIATION

February 2004

MISSILE PROCUREMENT, ARMY

For construction, procurement, production, modification, and modernization of missiles, equipment, including ordnance, ground handling equipment, spare parts, and accessories therefor; specialized equipment and training devices; expansion of public and private plants, including the land necessary therefor, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes, \$1,305,421,000, to remain available for obligation until September 30, 2007.

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APPROPRIATION SUMMARY
APPROPRIATION
 Missile Procurement, Army
TOTAL PROCUREMENT PROGRAM

DOLLARS IN THOUSANDS		
FY 2003	FY 2004	FY 2005
1,279,448	1,494,290	1,305,421
1,279,448	1,494,290	1,305,421

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APPROPRIATION Missile Procurement, Army		DOLLARS IN THOUSANDS			
ACTIVITY		FY 2003	FY 2004	FY 2005	PAGE
02	Other missiles	980,287	1,195,943	1,135,384	4
03	Modification of missiles	231,183	241,336	126,946	6
04	Spares and repair parts	55,559	50,167	33,779	7
05	Support equipment and facilities	12,419	6,844	9,312	8
APPROPRIATION TOTALS		1,279,448	1,494,290	1,305,421	

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APPROPRIATION Missile Procurement, Army

ACTIVITY 02 Other missiles

LINE NO	ITEM NOMENCLATURE	ID	DOLLARS IN THOUSANDS					
			FY 2003		FY 2004		FY 2005	
			QTY	COST	QTY	COST	QTY	COST
	<i>SURFACE-TO-AIR MISSILE SYSTEM</i>							
1	PATRIOT SYSTEM SUMMARY (C49100)	A			135	616,942	108	489,253
2	STINGER SYSTEM SUMMARY (C18500)	A	139	25,442		2,920		
3	Surface-Launched AMRAAM System Summary: (C81001)	A				7,397		2,449
	<i>SUB-ACTIVITY TOTAL</i>			<u>25,442</u>		<u>627,259</u>		<u>491,702</u>
	<i>AIR-TO-SURFACE MISSILE SYSTEM</i>							
4	HELLFIRE SYS SUMMARY (C70000) Less: Advance Procurement (PY)	A		(190,662) (-9,479)		(24,875)		(15,575)
				<u>181,183</u>		<u>24,875</u>		<u>15,575</u>
5	APKWS (Advanced Precision Kill Weapon System) (C70301)							755
6	APKWS (Advanced Precision Kill Weapon System) (C70301) Advance Procurement (CY)							6,124
	<i>SUB-ACTIVITY TOTAL</i>			<u>181,183</u>		<u>24,875</u>		<u>22,454</u>
	<i>ANTI-TANK/ASSAULT MISSILE SYSTEM</i>							
7	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007) Less: Advance Procurement (PY)		1,478	(230,608) (-8,950)	901	(132,071)	1,038	(125,403) (-7,600)
				<u>221,658</u>		<u>132,071</u>		<u>117,803</u>
8	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007) Advance Procurement (CY)					7,600		
9	LINE OF SIGHT ANTI-TANK (LOSAT) SYSTEM SUM (H09000) Less: Advance Procurement (PY)			(111) (-111)	76	(42,911)	158	(86,321)
				<u>0</u>		<u>42,911</u>		<u>86,321</u>
10	TOW 2 SYSTEM SUMMARY (C59300) Less: Advance Procurement (PY)	A			200	(9,815)	500	(25,813) (-12,946)
						<u>9,815</u>		<u>12,867</u>

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APPROPRIATION Missile Procurement, Army ACTIVITY 02 Other missiles

LINE NO	ITEM NOMENCLATURE	ID	DOLLARS IN THOUSANDS					
			FY 2003		FY 2004		FY 2005	
			QTY	COST	QTY	COST	QTY	COST
11	TOW 2 SYSTEM SUMMARY (C59300) Advance Procurement (CY)					16,366		13,375
12	Guided MLRS Rocket (GMLRS) (C64400)		822	130,450	786	106,959	1,026	112,302
13	MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)		3,366	15,647	1,176	7,589	822	6,627
14	MLRS LAUNCHER SYSTEMS (C66400)		34	134,742		39,857		41,200
15	High Mobility Artillery Rocket System (HIMARS) (C02901)		28	133,621	24	123,269	37	169,249
16	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)	B	156	137,544	60	57,372	56	61,484
	<i>SUB-ACTIVITY TOTAL</i>			<u>773,662</u>		<u>543,809</u>		<u>621,228</u>
	ACTIVITY TOTAL			980,287		1,195,943		1,135,384

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APPROPRIATION Missile Procurement, Army

ACTIVITY 03 Modification of missiles

LINE NO	ITEM NOMENCLATURE	ID	DOLLARS IN THOUSANDS					
			FY 2003		FY 2004		FY 2005	
			QTY	COST	QTY	COST	QTY	COST
	<i>MODIFICATIONS</i>							
17	PATRIOT MODS (C50700)			148,617		201,072		87,948
18	STINGER MODS (C20000)			1,467		966		
19	ITAS/TOW MODS (C61700)			58,918		19,064		9,784
20	MLRS MODS (C67500)			22,181		19,770		18,970
21	HIMARS MODIFICATIONS: (NON AAO) (C67501)					464		474
22	HELLFIRE Modifications (C71500)							9,770
	<i>SUB-ACTIVITY TOTAL</i>			<u>231,183</u>		<u>241,336</u>		<u>126,946</u>
	ACTIVITY TOTAL			231,183		241,336		126,946

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APPROPRIATION Missile Procurement, Army

ACTIVITY 04 Spares and repair parts

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2003		FY 2004		FY 2005		
			QTY	COST	QTY	COST	QTY	COST	
	<i>SPARES AND REPAIR PARTS</i>								
23	SPARES AND REPAIR PARTS (CA0250)			55,559		50,167		33,779	
	<i>SUB-ACTIVITY TOTAL</i>								
				<u>55,559</u>		<u>50,167</u>		<u>33,779</u>	
	ACTIVITY TOTAL								
				55,559		50,167		33,779	

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APPROPRIATION Missile Procurement, Army ACTIVITY 05 Support equipment and facilities

LINE NO	ITEM NOMENCLATURE	ID	DOLLARS IN THOUSANDS					
			FY 2003		FY 2004		FY 2005	
			QTY	COST	QTY	COST	QTY	COST
	<i>SUPPORT EQUIPMENT AND FACILITIES</i>							
24	AIR DEFENSE TARGETS (C93000)			3,349		3,438		5,843
25	ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)			891		10		10
26	MISSILE DEMILITARIZATION (HL2000)			4,811				
27	PRODUCTION BASE SUPPORT (CA0100)			3,314		3,396		3,459
28	CLOSED ACCOUNT ADJUSTMENTS (CX9999)			54				
	<i>SUB-ACTIVITY TOTAL</i>			12,419		6,844		9,312
	ACTIVITY TOTAL			12,419		6,844		9,312
	APPROPRIATION TOTAL			1,279,448		1,494,290		1,305,421

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NOMENCLATURE INDEX

SSN	LINE	PAGE	NOMENCLATURE
C93000	24	8	AIR DEFENSE TARGETS (C93000)
C70301	5	4	APKWS (Advanced Precision Kill Weapon System) (C70301)
C70301	6	4	APKWS (Advanced Precision Kill Weapon System) (C70301)
C98510	16	5	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)
CX9999	28	8	CLOSED ACCOUNT ADJUSTMENTS (CX9999)
C64400	12	5	Guided MLRS Rocket (GMLRS) (C64400)
C71500	22	6	HELLFIRE Modifications (C71500)
C70000	4	4	HELLFIRE SYS SUMMARY (C70000)
C02901	15	5	High Mobility Artillery Rocket System (HIMARS) (C02901)
C67501	21	6	HIMARS MODIFICATIONS: (NON AAO) (C67501)
C61700	19	6	ITAS/TOW MODS (C61700)
CL2000	25	8	ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)
CC0007	7	4	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)
CC0007	8	4	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)
C70000	4	4	Less: Advance Procurement (PY)
CC0007	7	4	Less: Advance Procurement (PY)
H09000	9	4	Less: Advance Procurement (PY)
C59300	10	4	Less: Advance Procurement (PY)
H09000	9	4	LINE OF SIGHT ANTI-TANK (LOSAT) SYSTEM SUM (H09000)
HL2000	26	8	MISSILE DEMILITARIZATION (HL2000)
C66400	14	5	MLRS LAUNCHER SYSTEMS (C66400)
C67500	20	6	MLRS MODS (C67500)
C65405	13	5	MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)
C50700	17	6	PATRIOT MODS (C50700)
C49100	1	4	PATRIOT SYSTEM SUMMARY (C49100)
CA0100	27	8	PRODUCTION BASE SUPPORT (CA0100)
CA0250	23	7	SPARES AND REPAIR PARTS (CA0250)
C20000	18	6	STINGER MODS (C20000)
C18500	2	4	STINGER SYSTEM SUMMARY (C18500)
C81001	3	4	Surface-Launched AMRAAM System Summary: (C81001)
C59300	10	4	TOW 2 SYSTEM SUMMARY (C59300)
C59300	11	5	TOW 2 SYSTEM SUMMARY (C59300)

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SSN	LINE	PAGE	NOMENCLATURE
C02901	15	5	High Mobility Artillery Rocket System (HIMARS) (C02901)
C18500	2	4	STINGER SYSTEM SUMMARY (C18500)
C20000	18	6	STINGER MODS (C20000)
C49100	1	4	PATRIOT SYSTEM SUMMARY (C49100)
C50700	17	6	PATRIOT MODS (C50700)
C59300	10	4	TOW 2 SYSTEM SUMMARY (C59300)
C59300	10	4	Less: Advance Procurement (PY)
C59300	11	5	TOW 2 SYSTEM SUMMARY (C59300)
C61700	19	6	ITAS/TOW MODS (C61700)
C64400	12	5	Guided MLRS Rocket (GMLRS) (C64400)
C65405	13	5	MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)
C66400	14	5	MLRS LAUNCHER SYSTEMS (C66400)
C67500	20	6	MLRS MODS (C67500)
C67501	21	6	HIMARS MODIFICATIONS: (NON AAO) (C67501)
C70000	4	4	HELLFIRE SYS SUMMARY (C70000)
C70000	4	4	Less: Advance Procurement (PY)
C70301	5	4	APKWS (Advanced Precision Kill Weapon System) (C70301)
C70301	6	4	APKWS (Advanced Precision Kill Weapon System) (C70301)
C71500	22	6	HELLFIRE Modifications (C71500)
C81001	3	4	Surface-Launched AMRAAM System Summary: (C81001)
C93000	24	8	AIR DEFENSE TARGETS (C93000)
C98510	16	5	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)
CA0100	27	8	PRODUCTION BASE SUPPORT (CA0100)
CA0250	23	7	SPARES AND REPAIR PARTS (CA0250)
CC0007	7	4	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)
CC0007	7	4	Less: Advance Procurement (PY)
CC0007	8	4	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)
CL2000	25	8	ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)
CX9999	28	8	CLOSED ACCOUNT ADJUSTMENTS (CX9999)
H09000	9	4	LINE OF SIGHT ANTI-TANK (LOSAT) SYSTEM SUM (H09000)
H09000	9	4	Less: Advance Procurement (PY)
HL2000	26	8	MISSILE DEMILITARIZATION (HL2000)

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Exhibit P-1M, Procurement Programs - Modification Summary

<u>System/Modification</u>	<u>2002 & Prior</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>To Complete</u>	<u>Total Program</u>
PATRIOT MODS (C50700)										
RLCEU	53.4	22.5	33.2							109.1
Integrated Diagnostic Support System	12.9									12.2
BCP (Link 16/JTIDS)	11.2	13.8	19.1	7.3						51.4
Tactical Command System	2.5									2.4
RAM MODS	26.9	10.7	10.0	35.8	23.0	40.2	53.3	51.8		251.7
Radar Phase III		43.7	65.6							109.3
CDI Phase III		17.0	25.5							42.5
TCS (TIBS/IBS, FO, C4I, NMNG)		14.3	11.4	11.3	9.1	9.8				56.0
Recapitalization		26.6	36.3	33.5	45.3	29.6	20.9	14.5		206.8
Total	106.9	148.6	201.1	87.9	77.4	79.6	74.2	66.3		841.3
STINGER BLK I UPGRADES (C21300)										
Stinger Block I Platform Upgrades (C21300)	14.2	1.5	1.0							16.7
Stinger Block I Missile Upgrades (C21300)	138.9									138.9
Stinger Troop Proficiency Trainer	3.1									3.1
Linebacker Training Devices	5.8									5.8
Total	162.0	1.5	1.0							164.5
ITAS/TOW MODS (C61700)										
Missile Conversion (HEAT TO PRACTICE)	40.7	5.3	1.4							47.4
MISSILE MODIFICATION (MOIC)	14.0									
ITAS (IMPROVED TARGET ACQUISITION SYSTEM)	352.0	53.6	17.7	9.8	9.7		0.0	44.3		487.1
CAPS (COUNTER ACTIVE PROTECTION SYSTEM)	13.6									6.8
Total	420.3	58.9	19.1	9.8	9.7			44.3		541.3
MLRS MODS (C67500)										
Inactive Mods	220.3									220.3

Exhibit P-1M, Procurement Programs - Modification Summary

<u>System/Modification</u>	<u>2002 & Prior</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>To Complete</u>	<u>Total Program</u>
Interim Improved Position Determining System Lchr	23.9	0.6	0.5	0.3						25.3
Selective Availability Anti-Spoofing Module				5.3	2.8					8.0
Joint Technical Architecture-Army (JTA-A)	11.1	0.4		0.5	0.2					12.3
Improved Weapons Interface Unit Modification MOD		5.5	8.6	4.2	0.9	0.1				19.4
M270A1 Generator Improvements		0.8		0.4	0.2					1.4
Obsolescence Mitigation/ECP Reliability Intg	11.2	5.0	7.4	2.7	2.1	1.0	2.8	1.7	27.1	61.0
600 hp Engine Conversion		9.4	0.4	2.5						12.3
LLM Disable Switch		0.5		0.5	0.2					1.3
Cordless Vehicular Intercommunication (VIS)						2.6	1.2	0.1		4.0
Auxiliary Power Unit/Environmental Control Unit			2.9	2.7	8.2	2.8				17.7
Total	266.5	22.3	19.8	19.0	14.6	6.6	5.3	1.8	27.1	383.0
HIMARS MODIFICATIONS: (NON AAO) (C67501)										
Joint Tactical Radio System (JTRS)							4.1	4.4	3.5	12.0
Integrated Core Processor					3.1	4.3	4.4	1.0		12.8
Machine Gun Mount					0.4	0.1				0.5
Carrier Upgrades					0.5	1.3	0.4	0.2		2.4
Manifold				0.3	0.4	0.1				0.8
Reliability/Obsolesence Mitigation			0.5	0.1	3.6	4.9	6.1	2.2	318.6	335.9
Cordless Vehicular Intercommunication System (VIS)						1.1	1.1	0.6		2.8
Total			0.5	0.5	8.0	11.7	16.1	8.3	322.1	367.2
HELLFIRE Modifications (C71500)										
Home-on-Jam/Anti-Jam				3.6						3.6
Rocket Motor Refit				6.2						6.2
Total				9.8						9.8
Grand Total	955.7	231.3	241.4	126.9	109.7	98.0	95.6	120.7	349.2	2307.0

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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, PE 0603869A

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty					135	108	113	124	212	232		924
Gross Cost					616.9	489.3	489.7	490.5	672.0	724.9		3483.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)					616.9	489.3	489.7	490.5	672.0	724.9		3483.2
Initial Spares												
Total Proc Cost					616.9	489.3	489.7	490.5	672.0	724.9		3483.2
Flyaway U/C												
Wpn Sys Proc U/C					4.6	4.5	4.3	4.0	3.2	3.1		

Description:

DESCRIPTION: PATRIOT is an advanced Surface-to-Air guided missile system with a high single shot kill probability 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 US 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. PATRIOT totally replaced Nike Hercules and partially replaced HAWK. It has the advantage of reducing manpower and logistics costs associated with replaced systems while providing improved high and medium altitude air defense. The system is integrated with the U.S. Air Force and U.S. Navy in the overall air defense of theater operations. The PATRIOT Advanced Capability (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. Modification to the system, which includes radar enhancements, communications upgrades, and increased command, control, and computer capability, will increase PATRIOT's effectivity, survivability, flexibility of defense design, footprint, and detection of smaller low radar cross section targets. The Army requirement for PAC-3 supports the Current to Future transition path of the Transformation Campaign Plan (TCP).

Justification:

JUSTIFICATION: FY05 funding is required to support the planned PAC-3 PATRIOT system through modification of existing ground support equipment and procurement of the PAC-3 missiles. The FY05 budget postures the Army to move forward with a combined PAC-3/MEADS program based on a favorable Milestone B decision 3QFY04. The Army has revised the MEADS acquisition strategy to combine management, development, and fielding of both the MEADS and PATRIOT systems. The combined aggregate program will provide for the evolution of the Patriot/PAC-3 system to the MEADS objective system through the early introduction of the MEADS Major End Items. This approach provides for earlier fielding of enhanced air and missile defense capabilities across the currently fielded force to counter the evolving threat and allows for the knowledge that was gained in the development and fielding of the Patriot System to be fused into the MEADS program. The PAC-3 missile is the baseline missile for the MEADS system. The Missile Segment Enhancement (MSE) missile, which provides for greater ranges, will be the objective missile for the system.

This program received an FY03 Supplemental increase of \$70.0 million for replacement of 22 missiles used in Operation Iraqi Freedom (OIF) and an FY04 Congressional increase of \$60.0 million for not less than 27 additional PAC-3 missiles.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

P-1 Item Nomenclature
Patriot PAC-3 (C49200)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

PE 0604865A, PE 0603869A

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty					135	108	113	124	212	232		924
Gross Cost					616.9	489.3	489.7	490.5	672.0	724.9		3483.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)					616.9	489.3	489.7	490.5	672.0	724.9		3483.2
Initial Spares												
Total Proc Cost					616.9	489.3	489.7	490.5	672.0	724.9		3483.2
Flyaway U/C												
Wpn Sys Proc U/C					4.6	4.5	4.3	4.0	3.2	3.1		

Description:

DESCRIPTION: PATRIOT is an advanced Surface-to-Air guided missile system with a high single shot kill probability 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 US 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. PATRIOT totally replaced Nike Hercules and partially replaced HAWK. It has the advantage of reducing manpower and logistics costs associated with replaced systems while providing improved high and medium altitude air defense. The system is integrated with the U.S. Air Force and U.S. Navy in the overall air defense of theater operations. The PATRIOT Advanced Capability (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. Modification to the system, which includes radar enhancements, communications upgrades, and increased command, control, and computer capability, will increase PATRIOT's effectivity, survivability, flexibility of defense design, footprint, and detection of smaller low radar cross section targets. The Army requirement for PAC-3 supports the Current to Future transition path of the Transformation Campaign Plan (TCP).

Justification:

JUSTIFICATION: FY05 funding is required to support the planned PAC-3 PATRIOT system through modification of existing ground support equipment and procurement of the PAC-3 missiles. The FY05 budget postures the Army to move forward with a combined PAC-3/MEADS program based on a favorable Milestone B decision 3QFY04. The Army has revised the MEADS acquisition strategy to combine management, development, and fielding of both the MEADS and PATRIOT systems. The combined aggregate program will provide for the evolution of the Patriot/PAC-3 system to the MEADS objective system through the early introduction of the MEADS Major End Items. This approach provides for earlier fielding of enhanced air and missile defense capabilities across the currently fielded force to counter the evolving threat and allows for the knowledge that was gained in the development and fielding of the Patriot System to be fused into the MEADS program. The PAC-3 missile is the baseline missile for the MEADS system. The Missile Segment Enhancement (MSE) missile, which provides for greater ranges, will be the objective missile for the system.

This program received an FY03 Supplemental increase of \$70.0 million for replacement of 22 missiles used in Operation Iraqi Freedom (OIF) and received an FY04 Congressional increase of \$60.0 million for not less than 27 additional PAC-3 missiles.

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 2004		
MSLS Cost Elements	ID CD				FY 03			FY 04			FY 05		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Missile Hardware - Recurring													
Missile Hardware							410929	135	3043.9		324618	108	3005.7
Field Surveillance							24276				21180		
Obsolescence							8372				8504		
SUBTOTAL							443577				354302		
Non-Recurring Costs													
Initial Production Facilitization							40387						
SUBTOTAL							40387						
Ground Support Equipment													
Command Launch System							24200				24200		
SUBTOTAL							24200				24200		
Support Cost													
Contractor Engineering							36592				37249		
Government/Software Engineering							27419				28076		
Sys Engrg/Proj Mgmt (SEPM)							20776				21318		
Integrated Logistics Support							14191				14308		
Depot Maint Plant Equipment (DMPE)							1500				1500		
Fielding							8300				8300		
SUBTOTAL							108778				110751		
Total							616942				489253		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles		Weapon System Type:			P-1 Line Item Nomenclature: PATRIOT PAC-3 (C49200)					
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Missile Hardware										
FY 1998 LRIPB MDA	LMMFC Dallas, TX	SS/CPIF	AMCOM	Dec 99	Sep 01	20	5124	NA		Jun 97
FY 2000 LRIP1 MDA	LMMFC Dallas, TX	SS/CPIF	AMCOM	May 00	May 02	32	5141	NA		Nov 99
FY 2001 LRIP2 MDA	LMMFC Dallas, TX	SS/CPIF	AMCOM	Dec 00	Mar 03	40	4535	NA		Aug 00
FY 2002 LRIP3 MDA	LMMFC Dallas, TX	SS/FPIS	AMCOM	Mar 02	Aug 03	72	4411	NA		Oct 01
FY 2003 MDA	LMMFC Dallas, TX	SS/FPIS	AMCOM	Dec 02	May 04	100	3727	NA		Aug 02
FY 2003 MDA	LMMFC Dallas, TX	SS/FFP	AMCOM	Sep 03	May 05	22	3182	NA		Sep 03
FY 2004	LMMFC Dallas, TX	SS/FFP	AMCOM	Nov 03	Jun 05	135	3044	NA		
FY 2005	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 04	May 06	108	3006	NA		
FY 2006	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 05	May 07	113	2982	NA		
FY 2007	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 06	May 08	124	2741	NA		
FY 2008	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 07	May 09	212	2507	NA		
FY 2009	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 08	May 10	232	2517	NA		

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /2/Other missiles
 P-1 Item Nomenclature
 STINGER SYSTEM SUMMARY (C18500)

Program Elements for Code B Items: Code: Other Related Program Elements: Stinger Mods (C20000)

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty	2266		300	139								2705
Gross Cost	1143.3		28.8	25.4	2.9							1200.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1143.3		28.8	25.4	2.9							1200.6
Initial Spares	1.6											1.6
Total Proc Cost	1144.9		28.8	25.4	2.9							1202.1
Flyaway U/C												
Wpn Sys Proc U/C			0.1	0.2								

Description:

Stinger is a lightweight, fire-and-forget, all-aspect, passive infrared/ultraviolet (IR/UV) homing missile. The Stinger Block I upgrade added enhanced processing capabilities, significantly improving the missile's terminal accuracy and performance against slow-moving and low-aspect targets, improving the missile's night capability, and increasing the infrared counter-counter measures (IRCCM) performance. The Stinger Block I missile incorporates the latest hardware and software modifications which increase the overall missile performance against low observable targets, cruise missiles and unmanned aerial vehicles. The Block I missile also resolves a key aviation deficiency by incorporating a Roll Frequency Sensor/Seeker that eliminates the need for super-elevation on aviation platforms. The Stinger Block I missile is compatible with all current and planned launch platforms, including Air-To-Air Stinger, Avenger, Bradley Linebacker and manportable, shoulder-fired applications. The Block I missile program also incorporates component redesign and replacement to address service life and obsolescence issues. This system supports the Current Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY04 funds final production support and deliveries of Stinger Block I.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

P-1 Item Nomenclature
STINGER BLK 1 (C18600)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

Stinger Mods (C20000)

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty	2266		300	139								2705
Gross Cost	775.0		28.8	25.4	2.9							832.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	775.0		28.8	25.4	2.9							832.2
Initial Spares	0.8											0.8
Total Proc Cost	775.8		28.8	25.4	2.9							833.0
Flyaway U/C												
Wpn Sys Proc U/C			0.0	0.0								

Description:

Stinger is a lightweight, fire-and-forget, all-aspect, passive infrared/ultraviolet (IR/UV) homing missile. The Stinger Block I upgrade added enhanced processing capabilities, significantly improving the missile's terminal accuracy and performance against slow-moving and low-aspect targets, improving the missile's night capability, and increasing the infrared counter-counter measures (IRCCM) performance. The Stinger Block I missile incorporates the latest hardware and software modifications which increase the overall missile performance against low observable targets, cruise missiles and unmanned aerial vehicles. The Block I missile also resolves a key aviation deficiency by incorporating a Roll Frequency Sensor/Seeker that eliminates the need for super-elevation on aviation platforms. The Stinger Block I missile is compatible with all current and planned launch platforms, including Air-To-Air Stinger, Avenger, Bradley Linebacker and manportable, shoulder-fired applications. The Block I missile program also incorporates component redesign and replacement to address service life and obsolescence issues. This system supports the Current Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY04 funds final production support and deliveries of Stinger Block I.

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: STINGER BLK 1 (C18600)			Weapon System Type:			Date: February 2004		
MSLS Cost Elements	ID CD				FY 03			FY 04			FY 05		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
MISSILE HARDWARE - RECURRING													
Missile Buy													
Missile Buy					14533	139	104.6						
Warhead & Fuze													
Dual Detectors													
Battery Coolant Unit					5005								
Containers					24								
Total Hardware Cost					19562								
Flyaway Cost					19562								
SUPPORT COST													
Government Engineering					3000			1577					
Contractor Engineering					2880			1343					
ECP													
Subtotal Support Cost					5880			2920					
Subtotal Support Cost													
Total					25442			2920					

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles		Weapon System Type:			P-1 Line Item Nomenclature: STINGER BLK 1 (C18600)						
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date	
Missile Buy FY 2002	Raytheon Systems Company Tucson, AZ	SS/FP Opt	AMCOM	May-02	Apr-04	300	78.8	yes			
Missile Buy FY 2003	Raytheon Systems Company Tucson, AZ	SS/FP Opt	AMCOM	Apr-03	Jan-05	139	104.6	yes			

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog.
Proc Qty												
Gross Cost					7.4	2.4	36.0	44.4	29.6			119.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)					7.4	2.4	36.0	44.4	29.6			119.8
Initial Spares												
Total Proc Cost					7.4	2.4	36.0	44.4	29.6			119.8
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

Surface Launched Advanced Medium Range Air-To-Air Missile (SLAMRAAM) is the initial outer tier interceptor component of the Extended Area Air Defense System (EAADS), a component of the Army's future Integrated Air & Missile Defense (IAMD) Task Forces. SLAMRAAM is a System of Systems, consisting of a launcher platform, AIM-120 Advanced Medium Range Air-to-Air Missiles (AMRAAMs), a common Army vehicle, launch rails, launcher electronics, on-board command, control, communications, and computer (C4) components, Sentinel (Enhanced Target Range and Classification) Sensor, other external Sensors, and an Integrated Fire Control Station (IFCS). SLAMRAAM is a lightweight, day or night, adverse weather, non-line-of-sight (NLOS) system for countering cruise missile (CM), low altitude rotary wing (RW), fixed wing (FW), unmanned aerial vehicle (UAV), and reconnaissance, surveillance, and target acquisition (RSTA) platforms. It supports clutter engagements in close combat areas where maneuvering forces and their supporting units operate. SLAMRAAM's force protection mission is to engage the low-altitude aerial threats out to 18km protecting maneuvering and stationary units, as well as protecting critical assets. This system supports the Future Force transformation path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funds will procure 6 AMRAAM Missiles.

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 System Summary: (C81001)			Weapon System Type:			Date: February 2004		
MSLS Cost Elements		ID CD	FY 03			FY 04			FY 05				
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost		
			\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000		
Missile Hardware - Recurring													
Missile Round								6463	15	431	2341	6	390
Canister											18	5	4
Total Missile Hardware								6463			2359		
System Support Equipment													
Missile Specific Support Equipment								824			45		
Total System Support Equipment Costs								824			45		
Program Mgmt/Production Support													
Program Mgmt/Production Support								110			45		
Total Program Mgmt/Production Support								110			45		
Total								7397			2449		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles		Weapon System Type:			P-1 Line Item Nomenclature: Surface-Launched AMRAAM System Summary: (C81001)					
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Missile Round										
FY 2004	US Air Force JSPO Eglin AFB, FL	MIPR	Eglin AFB, FL	Dec-03	Jun-05	15	431	NO		
FY 2005	US Air Force JSPO Eglin AFB, FL	MIPR	Eglin, AFB, FL	Dec-04	Jun-06	6	390	NO		

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: P-1 Item Nomenclature
Missile Procurement, Army /2/Other missiles HELLFIRE SYS SUMMARY (C70000)

Program Elements for Code B Items: Code: Other Related Program Elements: PE 0203802A, Project 785

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty		2200	2200	1797								6197
Gross Cost	3403.1	294.4	249.6	190.7	24.9	15.6	2.5					4180.6
Less PY Adv Proc	11.6	11.6	11.6	9.5								44.3
Plus CY Adv Proc	44.3											44.3
Net Proc (P-1)	3435.8	282.8	238.0	181.2	24.9	15.6	2.5					4180.6
Initial Spares	7.5											7.5
Total Proc Cost	3443.3	282.8	238.0	181.2	24.9	15.6	2.5					4188.1
Flyaway U/C												
Wpn Sys Proc U/C		0.1	0.1	0.1								

Description:

The HELLFIRE family of Future Force, air-to-ground missiles provides precision-kill capability to the Apache (Current Force), Comanche (Future Force), Blackhawk and Kiowa Warrior helicopters against heavy, advanced armor and individual hard point targets. Laser HELLFIRE (A, C, F, and K models) uses semi-active laser (SAL) terminal guidance. The K model (or HELLFIRE II) provides for point-target precision strike, defeats future advanced armor threat, is effective against countermeasures, and is shipboard compatible. Longbow HELLFIRE (L model) is a millimeter wave, radar-aided inertial guidance missile that provides a fire-and-forget capability to engage targets both day and night, in adverse weather, and with battlefield obscurants present. This capability will substantially increase the survivability of the AH-64D Longbow Apache helicopter. HELLFIRE II and Longbow HELLFIRE comprise the primary anti-tank armament of the AH-64 Apache, OH-58D Kiowa Warrior, and Special Operations helicopters and may be used by the RAH-66 Comanche – the Army’s next-generation helicopter. Production buys are scheduled to support training, testing, fielding and deployment of these aircraft. HELLFIRE supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funding supports Longbow HELLFIRE deliveries and the ongoing training, fielding and deployment of the complete AH 64-D Longbow Apache system.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /2/Other missiles
 P-1 Item Nomenclature: **Longbow HELLFIRE/LBHF+ (C70300)**

Program Elements for Code B Items: Code: Other Related Program Elements: **PE 0203802A, Project 785**

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty	6708	2200	2200	1797								12905
Gross Cost	1309.9	294.4	242.7	190.7	24.9	15.6	2.5					2080.5
Less PY Adv Proc	11.6	11.6	11.6	9.5								44.3
Plus CY Adv Proc	44.3											44.3
Net Proc (P-1)	1342.5	282.8	231.1	181.2	24.9	15.6	2.5					2080.5
Initial Spares												
Total Proc Cost	1342.5	282.8	231.1	181.2	24.9	15.6	2.5					2080.5
Flyaway U/C												
Wpn Sys Proc U/C		0.1	0.1	0.1								

Description:

Longbow HELLFIRE is a Future Force missile system that provides fire-and-forget capability to the Apache (Current Force) and Comanche (Future Force) systems. Longbow HELLFIRE provides a versatile capability to engage targets during both the day and night, in adverse weather, and with battlefield obscurants present. Longbow HELLFIRE's fire-and-forget capability and flexibility of engagement options provide a dramatic increase in lethality and survivability for the Apache and Comanche systems which complement the semi-active Laser HELLFIRE missile. The Longbow HELLFIRE missile contains a radio frequency guidance section, which provides a lock-on before launch (LOBL) or lock-on after launch (LOAL) capability, depending on target range and movement parameters. The Longbow HELLFIRE will not change the AH-64 mission or role, but will provide for increased aircraft survivability. All three Longbow program elements (Fire Control Radar, D Model Apache helicopter, and Longbow HELLFIRE missile) were deployed simultaneously and are fielded as a total system. Laser HELLFIRE and Longbow HELLFIRE are complementary; both are required on the modern battlefield. Longbow HELLFIRE supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funding supports Longbow HELLFIRE deliveries and the ongoing training, fielding and deployment of the complete AH 64-D Longbow Apache System.

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: LONGBOW HELLFIRE/LBHF+ (C70300)			Weapon System Type:			Date: February 2004		
MSLS Cost Elements	ID CD				FY 03			FY 04			FY 05		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Flyaway Costs													
Hardware Costs - Recurring													
All-Up-Rounds					168679	1797	94						
Containers													
Gv Furn Eq (GFE) Explosives					573								
Engineering Services					1825			1525			1646		
Engineering Change Orders-Motor Refit								1289					
Engineering Change Orders-HOJ/AJ					2345			1200					
Fielding					2335			2306			2611		
Acceptance Testing					4762			4062			4001		
SUBTOTAL					180519			10382			8258		
Engineering Support													
Project Mgt Admin					3829			3945			3623		
Production Engineering Support					3942			4062			3694		
SUBTOTAL					7771			8007			7317		
Non-Recurring													
Disposal of Tooling/Test Equipment													
Initial Production Facilitization (IPF)													
Cost Reduction Program													
Rate Tooling/Test Equipment													
SUBTOTAL													
Peculiar Support Equipment													
Environmental Protection Covers					2372			6486					
SUBTOTAL					2372			6486					
Gross P-1 End Item					190662			24875			15575		
Less: Prior Year Adv Proc					9479								
Net P-1 Full Funding Cost					181183			24875			15575		
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares													
Mods													
Total					181183			24875			15575		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles		Weapon System Type:			P-1 Line Item Nomenclature: LONGBOW HELLFIRE/LBHF+ (C70300)					
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
All-Up-Rounds										
FY 2002	Longbow Limited Liability Co Orlando, Fl	FFP-M-5(4)	AMCOM	Dec-01	Nov-03	2200	101	Yes		
FY 2003	Longbow Limited Liability Co Orlando, Fl	FFP-M-5(5)	AMCOM	Dec-02	Sep-04	1797	94	Yes		

REMARKS: Performance-based specifications are used in all production contracts.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /2/Other missiles	P-1 Item Nomenclature APKWS (Advanced Precision Kill Weapon System) (C70301)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: PE 0604802A, Project 705; 0203802A, Project 786
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	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty							49	2540	5800	8200	72950	89539
Gross Cost						0.8	21.8	83.8	125.0	161.0	1435.9	1828.2
Less PY Adv Proc							6.1					6.1
Plus CY Adv Proc						6.1						6.1
Net Proc (P-1)						6.9	15.7	83.8	125.0	161.0	1435.9	1828.2
Initial Spares												
Total Proc Cost						6.9	15.7	83.8	125.0	161.0	1435.9	1828.2
Flyaway U/C												
Wpn Sys Proc U/C							0.3	0.0	0.0	0.0	0.0	

Description:

The Advanced Precision Kill Weapon System (APKWS) is a highly accurate weapon that will complement the HELLFIRE missile in precision strikes against soft point targets and provide improved accuracy over the current 2.75-inch munition used in the AH-64 Apache, OH-58 Kiowa Warrior, and the future RAH-66 Comanche helicopters. Under the APKWS program, a laser guidance section for the 2.75 inch munition will be developed, tested, qualified and procured as a total system. The APKWS is expected to provide at least ten times the number of kills, thereby substantially reducing collateral damage, and significantly reducing cost because fewer rockets are required. The APKWS supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funds will procure initial production facilitization and advance procurement for long lead items for this FY05 new start procurement program.

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: APKWS (Advanced Precision Kill Weapon System) (C70301)			Weapon System Type:			Date: February 2004		
MSLS Cost Elements	ID CD				FY 03			FY 04			FY 05		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Flyaway Costs													
Hardware Costs - Recurring													
All-up Rounds													
Gov Furn Eq (GFE)													
Engineering Services													
Engineering Change Orders													
Fielding													
Acceptance Testing													
SUBTOTAL													
Engineering Support													
Project Mgt Admin													
Production Engineering Support													
SUBTOTAL													
Non-Recurring													
Disposal of Tool/Test Equipment													
Initial Production Facilitization												755	
Rate Tooling/Test Equipment													
SUBTOTAL												755	
Peculiar Support Equipment													
Environmental Protections													
SUBTOTAL													
Gross P-1 End Item													755
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost													755
Plus: P-1 CY Adv Proc													6124
Other Non P-1 Costs													
Initial Spares													
Mods													
Total													6879

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /2/Other missiles						P-1 Item Nomenclature APKWS (Advanced Precision Kill Weapon System)(Adv Proc) (C70301)						
Program Elements for Code B Items:				Code:	Other Related Program Elements: PE 0604802A, Project 705; PE 0203802, Project 786							
	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog.
Proc Qty												
Gross Cost												
Less PY Adv Proc												
Plus CY Adv Proc						6.1						6.1
Net Proc (P-1)						6.1						6.1
Initial Spares												
Total Proc Cost						6.1						6.1
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The Advanced Precision Kill Weapon System (APKWS) is a highly accurate weapon that will complement the HELLFIRE missile in precision strikes against soft point targets and provide improved accuracy over the current 2.75-inch munition used in the AH-64 Apache, OH-58 Kiowa Warrior, and the future RAH-66 Comanche helicopters. Under the APKWS program, a laser guidance section for the 2.75 inch munition will be developed, tested, qualified and procured as a total system. The APKWS is expected to provide at least ten times the number of kills, thereby substantially reducing collateral damage, and significantly reducing cost because fewer rockets are required. The APKWS supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funds are required for advance procurement of Long Lead Items to support APKWS production in FY06. APKWS is an FY05 new start procurement program.

Advance Procurement Requirements Analysis-Funding (P10A)	First System Award Date: 10 MAY 05	First System Completion Date: 10 OCT 05	Date: February 2004
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Appropriation/Budget Activity/Serial No: Missile Procurement, Army /2/Other missiles	P-1 Line Item Nomenclature / Weapon System APKWS (Advanced Precision Kill Weapon System)
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(\$ in Millions)

	PTL (mos)	When Rqd (mos)	Pr Yrs	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	To Comp	Total
All-up Rounds: Printed circuit boards Resistors/capacitors/diodes Microcircuits Optics Detectors M151 HE warhead M243 fuze Mark 66 Mod 4 rocket motors Marerials and components Guidance Sections	14	18						6.1						6.1
Total Advance Procurement			0.0	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	6.1

The advanced procurement required are the Long Lead Items necessary for manufacture of the APKWS to begin in FY 06.

Advance Procurement Requirements Analysis-Funding (P10B)

Date: February 2004

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

P-1 Line Item Nomenclature / Weapon System
APKWS (Advanced Precision Kill Weapon System)

(\$ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2004		2005			
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
End Item Quantity:									
All-up Rounds: Printed circuit boards Resistors/capacitors/diodes Microcircuits Optics Detectors M151 HE warhead M243 fuze Mark 66 Mod 4 rocket motors Materials and components	14		6.124				1	FY05	6.124
Total Advance Procurement						0.000			6.124

The Long Lead Item request is for those materials/components that require more than a 12 month lead time for all-up round manufacture. No major end item is procured in advance of the all-up round. These items are required for the manufacture of the FY 06 all-up rounds.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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:

PE 0604611A

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty	10460	2776	4139	1478	901	1038						20792
Gross Cost	1612.4	337.1	427.3	230.6	132.1	125.4	22.4	29.1	38.9	22.8		2978.1
Less PY Adv Proc	53.0	13.9	17.2	9.0		7.6						100.6
Plus CY Adv Proc	93.0				7.6							100.6
Net Proc (P-1)	1652.4	323.2	410.2	221.7	139.7	117.8	22.4	29.1	38.9	22.8		2978.1
Initial Spares	7.5	4.9	2.3	3.5	3.1	3.5	1.3	0.5	0.5	0.5		27.6
Total Proc Cost	1659.9	328.1	412.5	225.1	142.8	121.3	23.7	29.6	39.4	23.3		3005.7
Flyaway U/C												
Wpn Sys Proc U/C		0.1	0.1	0.1	0.2	0.1						

Description:

Javelin, a fire-and-forget system, is critical to the operational design of the Army's Future Force because of its precision strike, manportability, high reliability, and capability to engage multiple types of targets (tanks, armored personnel carriers, bunkers, helicopter, walls, etc). These characteristics are key elements of the Army's transformation to a more versatile, deployable, lethal, survivable, and sustainable force. Javelin is the medium antitank system for infantry, scouts and combat engineers. These forces must have the capability to defeat armored forces. The Javelin, a replacement for the DRAGON, can be delivered by individual paratrooper, door bundle, tracked/wheeled vehicles, rail, ship or air. This system has a high kill rate against all known armor threats at extended ranges under day/night, adverse weather and multiple counter-measure conditions. The system's soft launch 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 launch tube assembly. The system also includes training devices for tactical training, classroom training, and handling exercises. 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 over the DRAGON through the use of a tandem warhead which will defeat all known armor threats. It is effective against both stationary and moving targets. The Javelin is capable of operating over 2.5 times the range of the DRAGON with a day/night integrated sight, capable of target acquisition in adverse weather and through battlefield obscurant conditions. This system has a secondary mission of destroying bunkers and provides defensive capability against attacking/hovering helicopters. The CLU also has been used in a stand-alone mode for battlefield surveillance and target selection in recent conflicts. This system supports the Current to Future Force Transition Path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funds continue full rate production of Javelin missiles and CLUs and the continued acceptance and fielding of prior procured systems.

This program received \$3.1 million FY03 Supplemental funding to accelerate fielding of Javelin in support of Operation Iraqi Freedom (OIF).

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 2004		
MSLS Cost Elements	ID CD				FY 03			FY 04			FY 05		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Missile Hardware - Recurring													
All Up Round					101280	1478	69	68779	901	76	79237	1038	76
Engineering Services					5901			4617			4869		
Engineering Change Orders					204			95			93		
Acceptance Testing					5795			4501			4767		
Fielding					3592			2760			2893		
Subtotal Missile Hardware					116772			80752			91859		
Procurement Support													
Government Project Management					8501			7382			7481		
Government Production Engineering					4805			4052			4218		
Publications/Technical Data					750			610			602		
Subtotal Procurement Support					14056			12044			12301		
Command & Launch Hardware													
Command Launch Unit					73487	707	104	13310	120	111	13310	120	111
Engineering Services					2521			1562			1615		
Engineering Change Orders					75			15			12		
Fielding					4402			3492			3553		
SubTotal C&L Hardware					80485			18379			18490		
Training Devices													
Field Tactical Trainer-Student Station					14262	218	65	16453	256	64	2486	38	65
Field Tactical Trainer-Insttrr Station													
Basic Skills Trainer					3956	62	64	4095	59	69			
Missile Simulation Round					1077	461	2	348	196	2	267	150	2
SubTotal Training Devices					19295			20896			2753		
Gross P-1 End Cost													
					230608			132071			125403		
Less: Prior Year Adv Proc					8950						7600		
Net P-1 Full Funding Cost					221658			132071			117803		
PLUS P-1 CY Adv. Proc.								7600					
Other Non P-1 Costs													
Initial Spares					3454			3094			3516		
Total					225112			142765			121319		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

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)

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
All Up Round										
FY 2002	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-3	AMCOM	Dec 01	Oct03	4139	69	Yes		
FY 2003	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-4	AMCOM	Dec 02	Oct04	1478	69	Yes		
FY 2004	JV/All Up Round Tucson,AZ/Orlando,FL	SS/FP/M2-1	AMCOM	Dec03	Oct05	901	76	Yes		
FY 2005	JV/All Up Round Tucson,AZ/Orlando,FL	SS/FP/M2-2	AMCOM	Mar 05	Oct 06	1038	76	Yes		
Command Launch Unit										
FY 2002	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-3	AMCOM	Dec 01	Oct 03	840	104	Yes		
FY 2003	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-4	AMCOM	Dec 02	Oct 04	707	104	Yes		
FY 2004	JV/CLU Tucson,AZ/Orlando,FL	SS/FP/M2-1	AMCOM	Dec 03	Oct 05	120	111	Yes		
FY 2005	JV/CLU Tucson,AZ/Orlando,FL	SS/FP/M2-2	AMCOM	Mar 05	Oct 06	120	111	Yes		

REMARKS: The Javelin Joint Venture (Raytheon/Lockheed Martin) is currently the proponent industry source.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

P-1 Item Nomenclature
JAVELIN (AAWS-M) SYSTEM SUMMARY(Adv Proc) (CC0007)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

PE 0604611A

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost	-93.0											-93.0
Less PY Adv Proc												
Plus CY Adv Proc	93.0				7.6	-7.6						93.0
Net Proc (P-1)					7.6	-7.6						
Initial Spares												
Total Proc Cost					7.6	-7.6						
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

Javelin, a fire-and-forget system, is critical to the operational design of the Army's Future Force because of its precision strike, manportability, high reliability, and capability to engage multiple types of targets (tanks, armored personnel carriers, bunkers, helicopter, walls, etc). These characteristics are key elements of the Army's transformation to a more versatile, deployable, lethal, survivable, and sustainable force. Javelin is the medium antitank system for infantry, scouts and combat engineers. These forces must have the capability to defeat armored forces. The Javelin, a replacement for the DRAGON, can be delivered by individual paratrooper, door bundle, tracked/wheeled vehicles, rail, ship or air. This system has a high kill rate against all known armor threats at extended ranges under day/night, adverse weather and multiple counter-measure conditions. The system's soft launch 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 launch tube assembly. The system also includes training devices for tactical training, classroom training, and handling exercises. 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 over the DRAGON through the use of a tandem warhead which will defeat all known armor threats. It is effective against both stationary and moving targets. The Javelin is capable of operating over 2.5 times the range of the DRAGON with a day/night integrated sight, capable of target acquisition in adverse weather and through battlefield obscurant conditions. This system has a secondary mission of destroying bunkers and provides defensive capability against attacking/hovering helicopters. The CLU also has been used in a stand-alone mode for battlefield surveillance and target selection in recent conflicts. This system supports the Current to Future Force Transition Path of the Transformation Campaign Plan (TCP).

Justification:

FY04 funds support advance procurement for economic order quantity (EOQ) to support full rate production for Javelin.

Advance Procurement Requirements Analysis-Funding (P10A)

First System Award Date:
Mar 04

First System Completion Date:
Mar 06

Date:
February 2004

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

P-1 Line Item Nomenclature / Weapon System
JAVELIN (AAWS-M) SYSTEM SUMMARY

(\$ in Millions)

	PTL (mos)	When Rqd (mos)	Pr Yrs	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	To Comp	Total
End Item Quantity							1038							1038
EOQ ITEMS														
Launch Tube Assembly Componen							0.5							0.5
Propulsion Components							1.6							1.6
Missile/BCU Battery Components							0.3							0.3
Focal Plane Array Components							3.4							3.4
Control Acurator Sys. Components							1.3							1.3
Guidan. Electronics Unit Components							0.4							0.4
Receptacle Cover Components							0.1							0.1
Total Advance Procurement			0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0	7.6

Advance Procurement Requirements Analysis-Funding (P10B)

Date: February 2004

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

P-1 Line Item Nomenclature / Weapon System
JAVELIN (AAWS-M) SYSTEM SUMMARY

(\$ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2004			2005		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
End Item Quantity:				1038	Mar 04				
EOQ ITEMS									
Launch Tube Assembly Componen			0.500						0.500
Propulsion Components			1.600						1.600
Missile/BCU Battery Components			0.300						0.300
Focal Plane Array Components			3.400						3.400
Control Acurator Sys. Components			1.300						1.300
Guidan. Electronics Unit Components			0.400						0.400
Receptacle Cover Components			0.100						0.100
Total Advance Procurement						0.000			7.600

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /2/Other missiles	P-1 Item Nomenclature LINE OF SIGHT ANTI-TANK (LOSAT) SYSTEM SUM (H09000)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: PE 0604819A, PE 0603654A
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	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty					76	158	201					435
Gross Cost			2.9	0.1	42.9	86.3	71.0	4.4				207.6
Less PY Adv Proc				0.1								0.1
Plus CY Adv Proc			0.1									0.1
Net Proc (P-1)			3.0		42.9	86.3	71.0	4.4				207.6
Initial Spares												
Total Proc Cost			3.0		42.9	86.3	71.0	4.4				207.6
Flyaway U/C												
Wpn Sys Proc U/C					0.6	0.5	0.4					

Description:

Line-of-Sight Anti-Tank (LOSAT) and the Kinetic Energy Missile (KEM) technology provides light forces needed lethality and the foundation for the Future Force Kinetic Energy Missile integration. This program focuses on the integration of the LOSAT weapon system into a light, early deployable configuration in order to help remedy the urgent need for the early entry force lethality shortfall against heavy armor in support of the Army Transformation. The LOSAT weapon system consists of a kinetic energy (KE) missile launcher mounted on a heavy High Mobility Multi-purpose Wheeled Vehicle (HMMWV) chassis. LOSAT offers a highly mobile, near-term, advanced capability for overwhelming armor destruction with a high rate of fire, increased range, and increased force survivability. LOSAT, deployed in the early entry force, will provide the decisive edge to win swiftly with minimum casualties and provides an assault support weapon capability. LOSAT is strategically and tactically deployable, giving commanders and decision makers greater flexibility. Once in theater, LOSAT is extremely mobile and can be dropped or sling loaded under CH-47 and UH-60L aircraft. The performance of this hypervelocity kinetic energy missile (velocity of a mile per second) is not affected by the proliferation of emerging threat active protective systems and enhanced reactive armors, which are both rapidly becoming available on the global marketplace. LOSAT was initiated as a DoD-approved Advanced Concept Technology Demonstration (ACTD) program in FY 1998 to position the technology for future acquisition decisions; demonstrate subsystem capabilities in flight tests and dirty battlefield environments; evaluate the utility of the LOSAT technology for the early entry forces; demonstrate an integrated HMMWV-based LOSAT system in-flight tests and advanced war fighting experiments; and evaluate affordability issues. In December 1999, the Army and OSD funded the LOSAT accelerated advanced development and procurement as part of the Army Transformation by adding additional design activities, reducing risk, completing system qualification testing, and adding additional Operational tests to support transition to limited production of the LOSAT Weapon System, with entry into Low Rate Initial Production (LRIP) starting in FY 2004. This system supports the Current to Future Force transition path of the Transformation Campaign Plan(TCP).

Justification:

FY 05 funds will procure 158 LOSAT missiles and 12 Fire Units.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

P-1 Item Nomenclature
LOSAT MISSILE (H09100)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

PE 0604819A, PE 0603654A

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty					76	158	201					435
Gross Cost			2.9	0.1	42.9	86.3	71.0	4.4				207.6
Less PY Adv Proc				0.1								0.1
Plus CY Adv Proc			0.1									0.1
Net Proc (P-1)			3.0		42.9	86.3	71.0	4.4				207.6
Initial Spares												
Total Proc Cost			3.0		42.9	86.3	71.0	4.4				207.6
Flyaway U/C												
Wpn Sys Proc U/C					0.6	0.5	0.4					

Description:

Line-of-Sight Anti-Tank (LOSAT) and the Kinetic Energy Missile (KEM) technology provides light forces needed lethality and the foundation for the Future Force Kinetic Energy Missile integration. This program focuses on the integration of the LOSAT weapon system into a light, early deployable configuration in order to help remedy the urgent need for the early entry force lethality shortfall against heavy armor in support of the Army Transformation. The LOSAT weapon system consists of a kinetic energy (KE) missile launcher mounted on a heavy High Mobility Multi-purpose Wheeled Vehicle (HMMWV) chassis. LOSAT offers a highly mobile, near-term, advanced capability for overwhelming armor destruction with a high rate of fire, increased range, and increased force survivability. LOSAT, deployed in the early entry force, will provide the decisive edge to win swiftly with minimum casualties and provides an assault support weapon capability. LOSAT is strategically and tactically deployable, giving commanders and decision makers greater flexibility. Once in theater, LOSAT is extremely mobile and can be dropped or sling loaded under CH-47 and UH-60L aircraft. The performance of this hypervelocity kinetic energy missile (velocity of a mile per second) is not affected by the proliferation of emerging threat active protective systems and enhanced reactive armors, which are both rapidly becoming available on the global marketplace. LOSAT was initiated as a DoD-approved Advanced Concept Technology Demonstration (ACTD) program in FY 1998 to position the technology for future acquisition decisions; demonstrate subsystem capabilities in flight tests and dirty battlefield environments; evaluate the utility of the LOSAT technology for the early entry forces; demonstrate an integrated HMMWV-based LOSAT system in-flight tests and advanced war fighting experiments; and evaluate affordability issues. In December 1999, the Army and OSD funded the LOSAT accelerated advanced development and procurement as part of the Army Transformation by adding additional design activities, reducing risk, completing system qualification testing, and adding additional Operational tests to support transition to limited production of the LOSAT Weapon System, with entry into Low Rate Initial Production (LRIP) starting in FY 2004. This system supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY 05 procures 158 LOSAT missiles and 12 Fire Units.

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: LOSAT MISSILE (H09100)			Weapon System Type:			Date: February 2004		
MSLS Cost Elements	ID CD				FY 03			FY 04			FY 05		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Missile (MSL) Hardware													
Missiles (Complete Round)							12784	76	168.211	27117	158	171.627	
Engineering Change Orders							542			1048			
Subtotal Missile Hardware							13326			28165			
MSL Flyaway Cost							13326			28165			
Fire Unit (FU) Hardware													
Launch Unit							13938	6	2323.000	25925	12	2160.417	
Gov't Furnished Equipment							3199			6363			
Engineering Change Orders							553			1086			
Engineering Services							473			3446			
Fielding							4138			7276			
Subtotal FU Hardware							22301			44096			
Fire Unit Rollaway Cost							22301			44096			
Procurement Support													
Project Management							972			992			
Production Engineering							1959			3176			
Test and Evaluation							3022			6173			
Interim Contractor Logistics Support										951			
Pubs/Tech Data							88			232			
Sub Total							6041			11524			
Training Devices													
Training Devices							1243			2536			
Sub Total							1243			2536			
Other Cost													
Less Prior Year Adv Proc													
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Total Other Cost							42911			86321			
Total													

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

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

Weapon System Type:

P-1 Line Item Nomenclature:
LOSAT MISSILE (H09100)

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
Missiles (Complete Round)										
FY 2004	LMMFC-MISSILE DALLAS, TX	FPIF	AMCOM	APR 04	JUL 05	76	168	YES		
FY 2005	LMMFC-MISSILE DALLAS, TX	FPIF	AMCOM	DEC 04	MAR 06	158	172	No		

REMARKS: Missile Low rate initial production (LRIP) is scheduled to begin in FY 04.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: P-1 Item Nomenclature
 Missile Procurement, Army /2/Other missiles TOW 2 SYSTEM SUMMARY (C59300)

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

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty	144783				200	500	800	462	454	445		147644
Gross Cost	1859.9				9.8	25.8	43.0	26.2	27.8	30.0		2022.5
Less PY Adv Proc	16.1					12.9	16.8					45.9
Plus CY Adv Proc	16.1				16.4	13.4						45.9
Net Proc (P-1)	1859.9				26.2	26.2	26.2	26.2	27.8	30.0		2022.5
Initial Spares												
Total Proc Cost	1859.9				26.2	26.2	26.2	26.2	27.8	30.0		2022.5
Flyaway U/C												
Wpn Sys Proc U/C					0.1	0.1	0.0	0.1	0.1	0.1		

Description:

The TOW 2B missile (TOW: Tube-launched, Optically-tracked, Wire command-link guided) provides the heavy anti-armor/assault capability for the Army's Light Early-Entry Contingency Forces, the Stryker Brigade Combat Teams (BCT), and the Bradley equipped Mechanized Infantry. TOW 2B is also the primary heavy anti-armor missile for the U.S. Marine Corps and Allied nations. The TOW 2B missile defeats all known and projected threat armor systems including those equipped with advanced armor, explosive reactive armor (ERA), and active protection systems (APS). TOW 2B utilizes dual warheads configured for top-attack to defeat threat armor systems at their most vulnerable point. The TOW 2B missile incorporates the Counter Active Protection Systems(CAPS) enabling it to counter all current and projected threat APS. Incorporation of a new aerodynamic nose and additional wire extends the range of the TOW 2B and allows the soldier to engage and defeat threat armor systems out to 4,500 meters. Soldiers also employ TOW 2B in a secondary role against buildings and field fortifications taking advantage of the missile's inherent assault capability against such targets. The TOW 2B missile is 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 ATGM Light Armored Vehicle (LAV), the M220A2 TOW 2 launcher, and the M901A1 Improved TOW Vehicles. The USMC employs the TOW 2B missile from its M220A2 launchers, ATGM - LAV, and AH-1 Cobra helicopters. The TOW 2B missile provides the warfighter with a highly lethal, cost effective, interoperable, multi-purpose weapon capable of defeating all known and projected threat armor systems well into this century. TOW 2B supports the Current Transition Path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funds the second year of a three-year multiyear contract to procure new TOW missiles to maintain an effective heavy anti-armor/assault capability for the Current Force and Stryker Force.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /2/Other missiles	P-1 Item Nomenclature TOW 2 MISSILE (BGM-71D)(6") (C59403)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty	144783				200	500	800	462	454	445		147644
Gross Cost	1859.9				9.8	25.8	43.0	26.2	27.8	30.0		2022.5
Less PY Adv Proc	16.1					12.9	16.8					45.9
Plus CY Adv Proc	16.1				16.4	13.4						45.9
Net Proc (P-1)	1859.9				26.2	26.2	26.2	26.2	27.8	30.0		2022.5
Initial Spares												
Total Proc Cost	1859.9				26.2	26.2	26.2	26.2	27.8	30.0		2022.5
Flyaway U/C												
Wpn Sys Proc U/C					0.1	0.1	0.0	0.1	0.1	0.1		

Description:

The TOW 2B missile (TOW: Tube-launched, Optically-tracked, Wire command-link guided) provides the heavy anti-armor/assault capability for the Army's Light Early-Entry Contingency Forces, the Stryker Brigade Combat Teams (BCT), and the Bradley equipped Mechanized Infantry. TOW 2B is also the primary heavy anti-armor missile for the U.S. Marine Corps and Allied nations. The TOW 2B missile defeats all known and projected threat armor systems including those equipped with advanced armor, explosive reactive armor (ERA), and active protection systems (APS). TOW 2B utilizes dual warheads configured for top-attack to defeat threat armor systems at their most vulnerable point. The TOW 2B missile incorporates the Counter Active Protection Systems (CAPS) enabling it to counter all current and projected threat APS. Incorporation of a new aerodynamic nose and additional wire extends the range of the TOW 2B and allows the soldier to engage and defeat threat armor systems out to 4,500 meters. Soldiers also employ TOW 2B in a secondary role against buildings and field fortifications taking advantage of the missile's inherent assault capability against such targets. The TOW 2B missile is 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 ATGM Light Armored Vehicle (LAV), the M220A2 TOW 2 launcher, and the M901A1 Improved TOW Vehicles. The USMC employs the TOW 2B missile from its M220A2 launchers, ATGM - LAV, and AH-1 Cobra helicopters. The TOW 2B missile provides the warfighter with a highly lethal, cost effective, interoperable, multi-purpose weapon capable of defeating all known and projected threat armor systems well into this century. TOW 2B supports the Current Transition Path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funds the second year of a three-year multiyear contract to procure new TOW missiles to maintain an effective heavy anti-armor/assault capability for the Current Force and Stryker Force.

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: TOW 2 MISSLE (BGM-71D)(6") (C59403)			Weapon System Type:			Date: February 2004			
MSLS Cost Elements		ID CD				FY 03			FY 04			FY 05		
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Missile Hardware - Recurring														
Missile Contract								9600	200	48	24000	500	48	
Engineering Change Orders								65			1221			
Engineering Services														
Fielding														
Acceptance Testing								100			392			
SubTotal Missile Hardware								9765			25613			
Engineering Support														
Project Mgt Admin								50			200			
SubTotal Engineering Support								50			200			
Non-Recurring Costs														
Economic Order Quantity														
IPF														
SubTotal Non-Recurring Costs														
Total Flyaway								9815			25813			
Support Costs														
Peculiar Support Equipment														
Training Device (B/S)														
SubTotal Support Costs														
Gross P-1 End Cost														
Less: Prior Year Adv Proc											12946			
Net P-1 Full Funding Cost														
PLUS P-1 CY Adv. Proc.								16366			13375			
Other Non P-1 Costs														
Initial Spares														
MODS														
Total								26181			26242			

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles		Weapon System Type:			P-1 Line Item Nomenclature: TOW 2 MISSLE (BGM-71D)(6") (C59403)					
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Missile Contract										
FY 2004	Raytheon Tucson, AZ	MY/FFP	AMCOM, RSA, AL	Mar 04	May 06	200	48	Yes		
FY 2005	Raytheon Tucson, AZ	MY/FFP	AMCOM, RSA, AL	Dec 04	May 06	500	48	Yes		

REMARKS: Raytheon is currently the only industry source that is both facilitized and qualified to produce the TOW 2A and TOW 2B tactical missiles and the TOW 2A practice missile.
FY04-06 is a multiyear contract with options.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost												
Less PY Adv Proc												
Plus CY Adv Proc	16.1				16.4	13.4						45.9
Net Proc (P-1)	16.1				16.4	13.4						45.9
Initial Spares												
Total Proc Cost	16.1				16.4	13.4						45.9
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The TOW 2B missile (TOW: Tube-launched, Optically-tracked, Wire command-link guided) provides the heavy anti-armor/assault capability for the Army's Light Early-Entry Contingency Forces, the Stryker Brigade Combat Teams (BCT), and the Bradley equipped Mechanized Infantry. TOW 2B is also the primary heavy anti-armor missile for the U.S. Marine Corps and Allied nations. The TOW 2B missile defeats all known and projected threat armor systems including those equipped with advanced armor, explosive reactive armor (ERA), and active protection systems (APS). TOW 2B utilizes dual warheads configured for top-attack to defeat threat armor systems at their most vulnerable point. The TOW 2B missile incorporates the Counter Active Protection Systems (CAPS) enabling it to counter all current and projected threat APS. Incorporation of a new aerodynamic nose and additional wire extends the range of the TOW 2B and allows the soldier to engage and defeat threat armor systems out to 4,500 meters. Soldiers also employ TOW 2B in a secondary role against buildings and field fortifications taking advantage of the missile's inherent assault capability against such targets. The TOW 2B missile is 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 ATGM Light Armored Vehicle (LAV), the M220A2 TOW 2 launcher, and the M901A1 Improved TOW Vehicles. The USMC employs the TOW 2B missile from its M220A2 launchers, ATGM - LAV, and AH-1 Cobra helicopters. The TOW 2B missile provides the warfighter with a highly lethal, cost effective, inter-operable, multi-purpose weapon capable of defeating all known and projected threat armor systems well into this century. TOW 2B supports the Current Transition Path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funds advance procurement for Economic Order Quantity (EOQ) to support a 3-year multi-year production contract for TOW missiles to maintain an effective heavy anti-armor/assault capability for the Current Force and Stryker Force.

Advance Procurement Requirements Analysis-Funding (P10A)

First System Award Date:
Dec 03

First System Completion Date:
Apr 05

Date:
February 2004

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

P-1 Line Item Nomenclature / Weapon System
TOW 2 SYSTEM SUMMARY

(\$ in Millions)

	PTL (mos)	When Rqd (mos)	Pr Yrs	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	To Comp	Total
End Item Quantity							632	519						1151
EOQ ITEMS														
Propulsion Components							0.8	0.7						1.5
Warhead Assembly Components							11.7	9.5						21.2
Guidance & Electronics							2.5	2.0						4.5
Airframe Components							1.4	1.1						2.5
Total Advance Procurement			0.0	0.0	0.0	0.0	16.4	13.4	0.0	0.0	0.0	0.0	0.0	29.7

Advanced Procurement supports three year mulityear (Fy04-06) to procure total of 1,500 TOW 2 missiles

Advance Procurement Requirements Analysis-Funding (P10B)

Date: February 2004

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

P-1 Line Item Nomenclature / Weapon System
TOW 2 SYSTEM SUMMARY

(\$ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2004			2005		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
End Item Quantity:				632			519		
EOQ ITEMS					Mar 04			Dec 04	
Propulsion Components						0.841			0.688
Warhead Assembly Components						11.668			9.535
Guidance & Electronics						2.468			2.017
Airframe Components						1.389			1.135
Total Advance Procurement						16.366			13.375

Advanced Procurement supports three year multiyear (FY04-06) to procure total of 1,500 TOW 2 missiles.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty				822	786	1026	1218	2688	5814	6942	120708	140004
Gross Cost				130.5	107.0	112.3	129.4	249.6	488.2	572.8	9951.6	11741.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)				130.5	107.0	112.3	129.4	249.6	488.2	572.8	9951.6	11741.3
Initial Spares												
Total Proc Cost				130.5	107.0	112.3	129.4	249.6	488.2	572.8	9951.6	11741.3
Flyaway U/C												
Wpn Sys Proc U/C				0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	

Description:

The Guided Multiple Launch Rocket System (GMLRS) is a precision strike, artillery rocket system. Coupled with the High Mobility Artillery Rocket System (HIMARS) launcher platform, the GMLRS provides the joint warfighter with an unprecedented expeditionary capability as a highly mobile, rapidly deployable, precision guided munition with a reduced logistics burden effective against counterfire, air defense, light materiel, and personnel targets. The GMLRS is a major upgrade to the M26 series rocket and replaces the aging M26 inventory. GMLRS integrates a guidance and control package and a new rocket motor to achieve greater range and precision accuracy requiring fewer rockets to defeat targets than current artillery rockets, thereby reducing the logistics burden. In addition to HIMARS, the GMLRS will be the primary munition for artillery units fielded with the M270A1 launcher. The GMLRS Dual Purpose Improved Conventional Munition (DPICM) SDD was a five nation cooperative program among France, Germany, Italy, United Kingdom and the United States. FY03 initiated efforts to develop a new high explosive warhead and fuzing system for GMLRS known as GMLRS Unitary. The GMLRS Unitary is an all weather, low collateral damage, precision rocket which addresses an expanded MLRS target set to include point targets within urban and complex environments. It is a modification to the existing M26 through increments (GMLRS DPICM and Unitary) with spiral insertion that will integrate a multi-mode fuze and high explosive insensitive munition into a warhead of the same GMLRS DPICM dimensions. GMLRS Unitary will be fielded to support early entry forces, Stryker Brigades and the Unit of Action in the Future Force. Future technologies will be assessed for spiral development and potential insertion into GMLRS to provide operational flexibility and capability against an expanded target set including moving targets. The system also includes training devices for tactical training, classroom training and handling exercises. GMLRS DPICM and the GMLRS Unitary are the baseline for future Artillery Precision Rocket Munitions and are critical to the Army's Future Force. GMLRS is also a key component of the Marine Corps future fighting effort. The GMLRS supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 procures 1026 GMLRS rockets for LRIP III.

*This program received \$89.9 million FY03 Supplemental funding for the procurement of 714 GMLRS Rockets.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

P-1 Item Nomenclature
GUIDED MLRS ROCKET (GMLRS) (C65404)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

C65402, C65405, C65406, PE 0603778A, Projects 784/789

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty				822	786	1026	1218	2688	5814	6942	120708	140004
Gross Cost				130.5	107.0	112.3	129.4	249.6	488.2	572.8	9951.6	11741.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)				130.5	107.0	112.3	129.4	249.6	488.2	572.8	9951.6	11741.3
Initial Spares												
Total Proc Cost				130.5	107.0	112.3	129.4	249.6	488.2	572.8	9951.6	11741.3
Flyaway U/C												
Wpn Sys Proc U/C				0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	

Description:

The Guided Multiple Launch Rocket System (GMLRS) is a precision strike, artillery rocket system. Coupled with the High Mobility Artillery Rocket System (HIMARS) launcher platform, the GMLRS provides the joint warfighter with an unprecedented expeditionary capability as a highly mobile, rapidly deployable, precision guided munition with a reduced logistics burden effective against counterfire, air defense, light materiel, and personnel targets. The GMLRS is a major upgrade to the M26 series rocket and replaces the aging M26 inventory. GMLRS integrates a guidance and control package and a new rocket motor to achieve greater range and precision accuracy requiring fewer rockets to defeat targets than current artillery rockets, thereby reducing the logistics burden. In addition to HIMARS, the GMLRS will be the primary munition for artillery units fielded with the M270A1 launcher. The GMLRS Dual Purpose Improved Conventional Munition (DPICM) SDD was a five nation cooperative program among France, Germany, Italy, United Kingdom and the United States. FY03 initiated efforts to develop a new high explosive warhead and fuzing system for GMLRS known as GMLRS Unitary. The GMLRS Unitary is an all weather, low collateral damage, precision rocket which addresses an expanded MLRS target set to include point targets within urban and complex environments. It is a modification to the existing M26 through increments (GMLRS DPICM and Unitary) with spiral insertion that will integrate a multi-mode fuze and high explosive insensitive munition into a warhead of the same GMLRS DPICM dimensions. GMLRS Unitary will be fielded to support early entry forces, Stryker Brigades and the Unit of Action in the Future Force. Future technologies will be assessed for spiral development and potential insertion into GMLRS to provide operational flexibility and capability against an expanded target set including moving targets. The system also includes training devices for tactical training, classroom training and handling exercises. GMLRS DPICM and the GMLRS Unitary are the baseline for future Artillery Precision Rocket Munitions and are critical to the Army's Future Force. GMLRS is also a key component of the Marine Corps future fighting effort. The GMLRS supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 procures 1026 GMLRS rockets for LRIP III.

*This program received \$89.9 million FY03 Supplemental funding for the procurement of 714 GMLRS 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) (C65404)			Weapon System Type:			Date: February 2004		
MSLS Cost Elements	ID CD				FY 03			FY 04			FY 05		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Missile Hardware Recurring													
Tactical GMLRS					95674	822	116	77413	786	98	86878	1026	85
Engineering Services					9323			3488			3696		
Ind Maint/Init Prod Fac					16349			7998					
Interim Contractor Support											1091		
Fielding								112			118		
Subtotal Hardware					121346			89011			91783		
Procurement Support													
Project Management Admin					3808			5524			6626		
Production Engineering Support					2923			7947			8079		
Government Test								2093			1892		
Subtotal Procurement Support					6731			15564			16597		
Total Missile Flyaway					128077			104575			108380		
Support Costs													
Msl Test Device and Trainer					2373			2384			2461		
Subtotal Support Costs					2373			2384			2461		
Spares											1461		
Total					130450			106959			112302		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

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

Weapon System Type:

P-1 Line Item Nomenclature:
GUIDED MLRS ROCKET (GMLRS) (C65404)

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Tactical GMLRS										
FY 2003	Lockheed Martin M.&F.C Sys. Dallas, TX	SS/FFP	AMCOM	Jun-03	May-04	822	116	Yes		
FY 2004	Lockheed Martin M.&F.C Sys. Dallas, TX	SS/FFP	AMCOM	Feb-04	May-05	786	98	Yes		
FY 2005	Lockheed Martin M.&F.C Sys. Dallas, TX	SS/FFP	AMCOM	Jan-05	Dec-05	1026	85	Yes		

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

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty				3366	1176	822	1074	3972	5808	5808	34260	56286
Gross Cost				15.6	7.6	6.6	7.7	20.1	28.5	29.1	202.9	318.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)				15.6	7.6	6.6	7.7	20.1	28.5	29.1	202.9	318.2
Initial Spares												
Total Proc Cost				15.6	7.6	6.6	7.7	20.1	28.5	29.1	202.9	318.2
Flyaway U/C												
Wpn Sys Proc U/C				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Description:

The Multiple Launch Rocket System (MLRS) Reduced Range Practice Rocket (RRPR) is a training rocket which is allocated to Active Duty and Reserve Component units. The rocket has an inert payload section with a blunt nose for inducing reduced range for use at multiple ranges CONUS and OCONUS. The RRPR has been in inventory since 1993. The FY03 procurement began the first new buys of the RRPR since 1995. The current stockpile of MLRS RRPRs for training use by the MLRS units is being reduced due to training consumption and requires replenishment to preclude stockpile depletion and to sustain adequate stockpile margins. The MLRS RRPR supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funding procures 822 RRPRs, which are required to maintain the practice rocket inventory for Standards in Training Commission (STRC) requirements.

Exhibit P-5, Weapon MSLS Cost Analysis		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 2004			
MSLS Cost Elements		ID CD				FY 03			FY 04			FY 05		
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
HARDWARE														
Reduced Range Practice Rocket (RRPR)					11030	3366	3	3892	1176	3	2973	822	4	
GFE Warheads					1470			477			414			
Engineering Services					475			441			474			
Fielding								182			65			
SUBTOTAL					12975			4992			3926			
PROCUREMENT SUPPORT														
Project Management Admin					937			913			966			
Production Engineering Support					1735			1324			1312			
Test and Evaluation								360			423			
SUBTOTAL					2672			2597			2701			
Total					2672			2597			2701			
Total					15647			7589			6627			

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

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)					
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
Reduced Range Practice Rocket (RRPR)										
FY 2003	Lockheed Martin M.&F.C. Sys. Dallax, TX	SS/FFP	AMCOM	Aug-03	Feb-04	3366	3	Yes		Nov-02
FY 2004	Lockheed Martin M.&F.C. Sys. Dallax, TX	SS/FFP	AMCOM	Mar-04	Jan-05	1176	3	Yes		
FY 2005	Lockheed Martin M.&F.C. Sys. Dallax, TX	SS/FFP	AMCOM	Mar-05	Jan-06	822	4	Yes		

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

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /2/Other missiles	P-1 Item Nomenclature MLRS LAUNCHER SYSTEMS (C66400)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: C65900
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	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty	838	66	41	34								979
Gross Cost	2473.7	196.9	136.4	134.7	39.9	41.2	21.2					3044.0
Less PY Adv Proc	56.9											56.9
Plus CY Adv Proc	56.9											56.9
Net Proc (P-1)	2473.7	196.9	136.4	134.7	39.9	41.2	21.2					3044.0
Initial Spares	166.6	6.4	9.9	6.6	6.5	6.4						202.3
Total Proc Cost	2640.2	203.3	146.3	141.4	46.3	47.6	21.2					3246.3
Flyaway U/C												
Wpn Sys Proc U/C		3.0	3.3	4.0								

Description:

The M270A1 upgraded Multiple Launch Rocket System (MLRS) launcher consists of a M993A1 carrier, a derivative of the Bradley Fighting Vehicle (BFV) carrier, and the M269A1 Launcher Loader Module (LLM). The M270A1 requires a crew of three soldiers to conduct rocket and missile launches. The system is capable of firing the MLRS Family of Munitions (MFOM) and the Army Tactical Missile System (ATACMS) Family of Munitions (AFOM), including precision munitions, from ranges extending from 15 to 300+ kilometers. The M270A1 is capable of firing either 12 MFOM rockets or 2 AFOM missiles from a single launcher. The MLRS is designed to engage the full spectrum of threat targets in all weather environments. The MLRS is especially effective in the following roles: counterfire, suppression of enemy air defenses, light materiel and personnel targets. Operationally, the system is designed for mobility, flexibility, and range requirements necessary on the modern battlefield. The M270A1 improves survivability over the basic M270 by decreasing the time to aimpoint by 83%, decreasing the maintenance requirement by improving the system reliability, and decreasing operation and support costs by 31%. The M270A1 is one of the Army's recapitalization systems in which the launcher is completely remanufactured. The remanufactured LLM then adds the Improved Fire Control System (IFCS) and the Improved Launcher Mechanical System (ILMS) to complete the M270A1 upgrade. Procurement of the IFCS and ILMS upgrades began in FY98. The M270A1 upgrades are needed to fire the Army Tactical Missile System (ATACMS) Block IA missile, Block II missile, ATACMS Unitary and Guided MLRS. The IFCS is a modification to the current Fire Control System that upgrades the system's electronics, providing increased processing capability, an embedded global positioning system for accurate position location for the launcher and munitions, and improved fault isolation for ease of launcher maintenance. The ILMS allows for faster target engagement on time-sensitive, short-dwell-time targets, greatly improves the survivability of the crew and the launcher by significantly reducing the time on the firing point and the time for reload operations. The versatility of the system permits adaptation to other warheads such as scatterable mines, unitary warheads, terminally guided munitions, and other smart munitions that will expand the system's target set. Launchers procured in FY98-FY03 were M270A1 upgrades. The M270A1 supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funding provides for production support, acceptance testing, and fielding of MLRS Launchers.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /2/Other missiles	P-1 Item Nomenclature MLRS LAUNCHER (C65900)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: C66400
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	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty	838	66	41	34								979
Gross Cost	2473.7	196.9	136.4	134.7	39.9	41.2	21.2					3044.0
Less PY Adv Proc	56.9											56.9
Plus CY Adv Proc	56.9											56.9
Net Proc (P-1)	2473.7	196.9	136.4	134.7	39.9	41.2	21.2					3044.0
Initial Spares	166.6	6.4	9.9	6.6	6.5	6.4						202.3
Total Proc Cost	2640.2	203.3	146.3	141.4	46.3	47.6	21.2					3246.3
Flyaway U/C												
Wpn Sys Proc U/C		3.0	3.3	4.0								

Description:

The M270A1 upgraded Multiple Launch Rocket System (MLRS) launcher consists of a M993A1 carrier, a derivative of the Bradley Fighting Vehicle (BFV) carrier, and the M269A1 Launcher Loader Module (LLM). The M270A1 requires a crew of three soldiers to conduct rocket and missile launches. The system is capable of firing the MLRS Family of Munitions (MFOM) and the Army Tactical Missile System (ATACMS) Family of Munitions (AFOM), including precision munitions, from ranges extending from 15 to 300+ kilometers. The M270A1 is capable of firing either 12 MFOM rockets or 2 AFOM missiles from a single launcher. The MLRS is designed to engage the full spectrum of threat targets in all weather environments. The MLRS is especially effective in the following roles: counterfire, suppression of enemy air defenses, light materiel and personnel targets. Operationally, the system is designed for mobility, flexibility, and range requirements necessary on the modern battlefield. The M270A1 improves survivability over the basic M270 by decreasing the time to aimpoint by 83%, decreasing the maintenance requirement by improving the system reliability, and decreasing operation and support costs by 31%. The M270A1 is one of the Army's recapitalization systems in which the launcher is completely remanufactured. The remanufactured LLM then adds the Improved Fire Control System (IFCS) and the Improved Launcher Mechanical System (ILMS) to complete the M270A1 upgrade. Procurement of the IFCS and ILMS upgrades began in FY98. The M270A1 upgrades are needed to fire the Army Tactical Missile System (ATACMS) Block IA missile, Block II missile, ATACMS Unitary and Guided MLRS. The IFCS is a modification to the current Fire Control System that upgrades the system's electronics, providing increased processing capability, an embedded global positioning system for accurate position location for the launcher and munitions, and improved fault isolation for ease of launcher maintenance. The ILMS allows for faster target engagement on time-sensitive, short-dwell-time targets, greatly improves the survivability of the crew and the launcher by significantly reducing the time on the firing point and the time for reload operations. The versatility of the system permits adaptation to other warheads such as scatterable mines, unitary warheads, terminally guided munitions, and other smart munitions that will expand the system's target set. Launchers procured in FY98-FY03 were M270A1 upgrades. The M270A1 supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funding provides for product support, acceptance testing, and fielding of MLRS Launchers.

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: MLRS LAUNCHER (C65900)			Weapon System Type:			Date: February 2004			
MSLS Cost Elements		ID CD				FY 03			FY 04			FY 05		
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
GROUND EQUIPMENT HARDWARE														
Launcher					63714	34	1874							
Remanufacture					19599									
Launcher Pod/Container (LP/C) Trainer														
System Safety Reduction Evaluation														
2x9/3x6 Launcher														
Peculiar Support Equipment					7285			7786			8816			
Engineering Services					14019			11736			11016			
Production Engineering					8198			5106			4362			
Other Government Agencies					5011			3584			3868			
Engineering Change Orders														
Fielding					6633			4683			6436			
Facilitization					1604									
SUBTOTAL					126063			32895			34498			
PROCUREMENT SUPPORT														
Project Management Admin					8679			6962			6702			
SUBTOTAL					8679			6962			6702			
Net P-1 Full Funding Cost					134742			39857			41200			
Initial Spares					6613			6473			6375			
TOTAL					6613			6473			6375			
Total					141355			46330			47575			

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

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

Weapon System Type:

P-1 Line Item Nomenclature:
MLRS LAUNCHER (C65900)

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
Launcher										
FY 2002	Lockheed Martin M.&F.C.Sys Dallas, Texas	SS/FFP	AMCOM	Dec 01	Dec 03	41	1593	Yes		
FY 2003	Lockheed Martin M.&F.C.Sys Dallas, Texas	SS/FFP	AMCOM	Dec 02	Jul 04	34	1874	Yes		

REMARKS: Lockheed Martin is currently the only industry source that is both facilitized and qualified to produce the M270A1 Launcher.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty				28	24	37	41	51	58	60	589	888
Gross Cost				133.6	123.3	169.2	190.6	229.6	231.8	242.7	2836.7	4157.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)				133.6	123.3	169.2	190.6	229.6	231.8	242.7	2836.7	4157.6
Initial Spares					7.5	4.0	8.5	7.6	13.1	10.5	128.1	179.2
Total Proc Cost				133.6	130.7	173.3	199.1	237.2	244.9	253.2	2964.8	4336.8
Flyaway U/C												
Wpn Sys Proc U/C				4.8	5.1	4.6	4.6	4.5	4.0	4.0	4.8	

Description:

High Mobility Artillery Rocket System (HIMARS) is a C-130 transportable, wheeled, indirect fire, rocket/missile launcher that is capable of firing all rockets and missiles in the current and future Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM). The HIMARS launcher (XM142) has extensive commonality with the MLRS M270A1 tracked launcher and consists of a Fire Control System (FCS), a carrier (FMTV M1096 automotive chassis) and a launcher-loader module (LLM) that performs all operations necessary to complete a fire mission. The MFOM is 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 meets 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 a near all-weather, day/night, indirect fire, system capable of delivering the MFOM in support of light, early and forced entry expeditionary operations using a more deployable, lethal, survivable and tactically mobile long range 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 Future Force Unit of Employment will provide fires that shape, shield and isolate the battle space. The HIMARS will provide Joint, Current and Future Force 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 system also includes training devices for tactical training, classroom training, and handling exercises. This system supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 procures Low Rate Initial Production (LRIP) HIMARS launchers, trainers and associated support equipment. HIMARS meets the Army's modernization goal for the 21st century, is designated Army's Current to Future Force rocket/missile delivery system, and was selected by Army strategic planners as one of the Army's core systems of the Unit of Employment.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

P-1 Item Nomenclature
HIMARS LAUNCHER (C03000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

C02901 HIMARS and C03001 Training Devices

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty				28	24	37	41	51	58	60	589	888
Gross Cost				133.6	123.3	169.2	190.6	229.6	231.8	242.7	2836.7	4157.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)				133.6	123.3	169.2	190.6	229.6	231.8	242.7	2836.7	4157.6
Initial Spares					7.5	4.0	8.5	7.6	13.1	10.5	128.1	179.2
Total Proc Cost				133.6	130.7	173.3	199.1	237.2	244.9	253.2	2964.8	4336.8
Flyaway U/C												
Wpn Sys Proc U/C				4.8	5.1	4.6	4.6	4.5	4.0	4.0	4.8	

Description:

High Mobility Artillery Rocket System (HIMARS) is a C-130 transportable, wheeled, indirect fire, rocket/missile launcher that is capable of firing all rockets and missiles in the current and future Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM). The HIMARS launcher (XM142) has extensive commonality with the MLRS M270A1 tracked launcher and consists of a Fire Control System (FCS), a carrier (FMTV M1096 automotive chassis) and a launcher-loader module (LLM) that performs all operations necessary to complete a fire mission. The MFOM is 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 meets 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 a near all-weather, day/night, indirect fire system capable of delivering the MFOM in support of light, early and forced entry expeditionary operations using a more deployable, lethal, survivable and tactically mobile long range 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 Future Force Unit of Employment will provide fires that shape, shield and isolate the battle space. The HIMARS will provide Joint, Current and Future Force 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 system also includes training devices for tactical training, classroom training, and handling exercises. This system supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 procures Low Rate Initial Production (LRIP) HIMARS launchers, trainers and associated support equipment. HIMARS meets the Army's modernization goal for the 21st century, is designated Army's Current to Future Force rocket/missile delivery system, and was selected by Army strategic planners as one of the Army's core systems of the Unit of Employment.

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: HIMARS LAUNCHER (C03000)			Weapon System Type:			Date: February 2004			
MSLS Cost Elements		ID CD				FY 03			FY 04			FY 05		
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Ground Equipment Hardware														
Launcher					91852	28	3280	79468	24	3311	104541	37	2825	
Carrier					10804	28	386	8379	24	349	17663	37	477	
Engineering Services					5468			5499			11106			
Fielding					2575			6504			3102			
Facilitization					4573									
Subtotal					115272			99850			136412			
Procurement Support														
Project Management Admin					6508			6922			7174			
Production Engineering					5444			9399			9911			
Government Testing								398			1366			
Subtotal					11952			16719			18451			
Support Equipment														
Peculiar Support Equipment					2186			2238			2356			
Subtotal					2186			2238			2356			
Training Devices														
OMEMS Tactical Trainer					216			3464			10615			
MFOM Simulator (MLPA)					494			576			972			
Organizational Maintenance Trainer					3501			422			443			
Subtotal					4211			4462			12030			
Gross P-1 End Cost					133621			123269			169249			
Other Non P-1 Costs														
Initial Spares								7454			4032			
Subtotal								7454			4032			
Total					133621			130723			173281			

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles		Weapon System Type:			P-1 Line Item Nomenclature: HIMARS LAUNCHER (C03000)					
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
Launcher										
FY 2003	Lockheed Martin M.&F.C. Sys Dallas Texas	SS/FFP	AMCOM	Dec 02	Apr 04	28	3280	yes		
FY 2004	Lockheed Martin M.&F.C. Sys Dallas Texas	SS/FFP	AMCOM	Dec 03	Mar 05	24	3311	yes		
FY 2005	Lockheed Martin M.&F.C. Sys Dallas Texas	SS/FFP	AMCOM	Dec 04	Mar 06	37	2825	yes		

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

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

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

P-1 Item Nomenclature
ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty	2199	100	24	156	60	56	50	48	48			2741
Gross Cost	1538.4	105.1	35.0	137.5	57.4	61.5	58.5	59.0	59.4			2111.7
Less PY Adv Proc	75.1											75.1
Plus CY Adv Proc	75.1											75.1
Net Proc (P-1)	1538.4	105.1	35.0	137.5	57.4	61.5	58.5	59.0	59.4			2111.7
Initial Spares	4.2											4.2
Total Proc Cost	1542.6	105.1	35.0	137.5	57.4	61.5	58.5	59.0	59.4			2115.9
Flyaway U/C												
Wpn Sys Proc U/C		1.1	1.5	0.9	1.0	1.1	1.2	1.2	1.2			

Description:

ATACMS Block IA is a ground-launched missile system consisting of a surface-to-surface guided missile with an anti-personnel, anti-materiel (APAM) warhead. The ATACMS Block IA Quick Reaction Unitary (QRU) integrates global positioning system (GPS) components and increases the range of the Block I missile, providing a critical asset for the Future Force. The QRU replaces the Block IA APAM warhead with a Harpoon Warhead procured from the Navy. The inherent GPS accuracies will be achievable independent of range. ATACMS missiles are fired from the Multiple Launch Rocket System (MLRS) modified M270A1 launcher or the High Mobility Artillery Rocket System (HIMARS) and are being deployed within the ammunition loads of Corps MLRS battalions and/or Division artillery MLRS batteries. The ATACMS Block IA Quick Reaction Unitary supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funding procures 56 of the ATACMS Block 1A Quick Reaction Unitary (QRU) missiles.

*This program received \$109.0 million FY03 Supplemental funding to procure 140 ATACMS Block 1A QRU Missiles.

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)			Weapon System Type:			Date: February 2004		
MSLS Cost Elements	ID CD				FY 03			FY 04			FY 05		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Missile Hardware - Recurring (BLK IA)													
Prime Contract					115172	156	738	39392	60	657	37051	56	662
DERF QRUs													
Warheads					7800			3056			2906		
Engineering Services					6119			3830			9149		
Flight Kits													
Fielding					12			52			26		
SubTotal Missile Hardware					129103			46330			49132		
Procurement Support													
Project Management					2504			2489			2937		
Production Engineering Support					3738			5068			5231		
Test and Evaluation					2199			3180			3379		
Subtotal Procurement Support					8441			10737			11547		
Total Missile Flyaway					137544			57067			60679		
Command & Launch Hardware													
Command & Launch Integration Support								305			805		
Subtotal C & L Integration								305			805		
Support Costs													
Missile Test Device													
ATMF Test and Support Equipment													
Subtotal Support Cost													
Gross P-1 End Cost													
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost													
PLUS P-1 CY Adv. Proc.													
Other Non P-1 Costs													
Initial Spares													
Total					137544			57372			61484		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army / 2 / Other missiles		Weapon System Type:			P-1 Line Item Nomenclature: ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)					
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
Prime Contract										
FY 2003	Lockheed Martin Missiles Dallas, TX	SS/FFP	AMCOM	MAY 03	JUL 03	16	738			
FY 2003	Lockheed Martin Missiles Dallas, TX	SS/FFP	AMCOM	FEB 04	OCT 04	140	738			
FY 2004	Lockheed Martin Missiles Dallas, TX	SS/FFP	AMCOM	MAR 04	AUG 05	60	657			
FY 2005	Lockheed Martin Missiles Dallas, TX	SS/FFP	AMCOM	FEB 05	JAN 06	56	662			

REMARKS: Lockheed Martin is currently the industry source that is both facilitized and qualified to produce the ATACMS Block 1A missile and all variants.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost	473.9	24.0	24.8	148.6	201.1	87.9	77.4	79.6	74.2	66.3		1257.9
Less PY Adv Proc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Plus CY Adv Proc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Net Proc (P-1)	473.9	24.0	24.8	148.6	201.1	87.9	77.4	79.6	74.2	66.3		1257.9
Initial Spares	60.9	2.6	0.3	39.9	31.8	14.7	14.8	9.6	9.0	8.2		191.8
Total Proc Cost	534.8	26.7	25.1	188.6	232.9	102.7	92.2	89.2	83.2	74.5		1449.7
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The Patriot Weapon System Growth Program is in response to a Report of the Defense Science Board Task Force on Patriot Vulnerability (1978) (SECRET) and the Air Threat to Central Europe (1978-1988) ATCE-1988 (SECRET) dated 1 Aug 78, and was part of the Mid 1980 Army System Acquisition Review Council/Defense System Acquisition Review Council (ASARC/DSARC) process approving the initiation of Patriot production. This system supports the Current to Future transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 procures the planned system Growth Program which will add hardware enhancements/improvements to the total Patriot Weapon System as well as recapitalization to ensure operational readiness and a zero time/zero mile system. The FY05 budget postures the Army to move forward with a combined PAC-3/MEADS program based on a favorable Milestone B decision 3QFY04. The Army has revised the MEADS acquisition strategy to combine management, development, and fielding of both the MEADS and Patriot systems. The combined aggregate program will provide for the evolution of the Patriot/PAC-3 system to the MEADS objective system through the early introduction of the MEADS Major End Items. This approach provides for earlier fielding of enhanced air and missile defense capabilities across the currently fielded force to counter the evolving threat and allow for the knowledge that was gained in the development and fielding of the Patriot System to be fused into the MEADS program. The PAC-3 missile is the baseline missile for the MEADS system. The Missile Segment Enhancement (MSE) missile, which provides for greater ranges, will be the objective missile for the system.

This program received an FY04 Congressional reduction of \$10.0 million for Patriot-MEADS consolidation efficiencies.

*On January 23, 2004, The OUSD(C) submitted to the Congressional Committees a prior approval reprogramming request to fund Patriot Modifications needed to address Operation Iraqi Freedom Lessons Learned. The reprogramming includes \$17.7 million for development efforts and \$24.0 million for procurement. The \$24.0 million is not reflected in the column above.

Exhibit P-40M, Budget Item Justification Sheet

Date: February 2004

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							

OSIP NO.	Classification	Fiscal Years									
		2002 & PR	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	TC	Total
RLCEU											
1-92-03-1233-00-0000		53.4	22.5	33.3	0.0	0.0	0.0	0.0	0.0	0.0	109.2
Integrated Diagnostic Support System											
1-97-03-1244		12.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9
BCP (Link 16/JTIDS)											
1-97-03-1246		11.2	13.8	19.1	7.3	0.0	0.0	0.0	0.0	0.0	51.4
Tactical Command System											
1-98-03-1251		2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
RAM MODS											
1-98-03-1249		27.0	10.7	10.0	35.8	23.1	40.2	53.3	51.7	0.0	251.8
Radar Phase III											
1-89-03-1231		0.0	43.7	65.6	0.0	0.0	0.0	0.0	0.0	0.0	109.3
CDI Phase III											
1-92-03-1238		0.0	17.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0	42.5
TCS (TIBS/IBS, FO, C4I, NMNG)											
1-01-01-1251		0.0	14.3	11.4	11.4	9.1	9.9	0.0	0.0	0.0	56.1
Recapitalization											
1-01-01-1252		0.0	26.6	36.3	33.5	45.3	29.6	20.9	14.5	0.0	206.7
Totals		107.0	148.6	201.2	88.0	77.5	79.7	74.2	66.2	0.0	842.4

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: RLCEU [MOD 1] 1-92-03-1233-00-0000

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 Bank IV 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
CRG	22	4	5	9
ECS	39	6	8	5
ICC	12	1		

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

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

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 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	58	5	5	5	3	3	3	2	4	4	4	1	4	4	3	3				
Outputs	58		5	5	5		3	3	3	2	4	4	4	1	4	4	3	3		

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		111
Outputs																		111

METHOD OF IMPLEMENTATION:	ADMINISTRATIVE LEADTIME:				3 Months	PRODUCTION LEADTIME:				24 Months
Contract Dates:	FY 2004	Dec 03	FY 2005	Dec 04		FY 2006				
Delivery Date:	FY 2004	Dec 05	FY 2005	Dec 06		FY 2006				

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): RLCEU [MOD 1] 1-92-03-1233-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity	84	48.5	13	20.5	14	30.3													111	99.3
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware	0																			
FY2002 & Prior Equip -- Kits	84	4.9																	84	4.9
FY2003 Equip -- Kits			13	2.0															13	2.0
FY2004 Equip -- Kits					14	3.0													14	3.0
FY2005 Equip -- Kits																				
FY2006 Equip -- Kits																				
FY2007 Equip -- Kits																				
FY2008 Equip -- Kits																				
FY2009 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	84	4.9	13	2.0	14	3.0		0.0		0.0	111	9.9								
Total Procurement Cost		53.4		22.5		33.3		0.0		0.0		109.2								

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Integrated Diagnostic Support System [MOD 2] 1-97-03-1244

MODELS OF SYSTEM AFFECTED:

DESCRIPTION/JUSTIFICATION:

At the fire unit level, maintenance monitors detect faults and automatically access diagnostic/repair procedures in electronic Tech Manuals (TM) and expert systems. Digital communications enable secure telemaintenance from weapons platform to factory for remote diagnostics and adjustments.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Major milestones not applicable.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	19																			
Outputs	19																			

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		19
Outputs																		19

METHOD OF IMPLEMENTATION:

Contract Dates:

FY 2004

ADMINISTRATIVE LEADTIME:

3 Months

PRODUCTION LEADTIME:

9 Months

Delivery Date:

FY 2004

FY 2005

FY 2006

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Integrated Diagnostic Support System [MOD 2] 1-97-03-1244

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity	19	12.2																	19	12.2
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY2002 & Prior Equip -- Kits	0																			
FY2003 Equip -- Kits	19	0.7																		0.7
FY2004 Equip -- Kits																				
FY2005 Equip -- Kits																				
FY2006 Equip -- Kits																				
FY2007 Equip -- Kits																				
FY2008 Equip -- Kits																				
FY2009 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	19	0.7		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.7
Total Procurement Cost		12.9		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		12.9

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: BCP (Link 16/JTIDS) [MOD 3] 1-97-03-1246

MODELS OF SYSTEM AFFECTED: ECS

DESCRIPTION/JUSTIFICATION:

This modification will integrate the hardware required for an M-109 van based Link-16 terminal, terminal control and communications processing equipment required to receive and process the Link-16 Joint Data Net Information and to provide this information, in the PATRIOT Air Defense Information Language (PADIL) Data Link format, to the PATRIOT Engagement Control Station (ECS). This will permit the PATRIOT firing battery to function as a limited participant (receive-only) in the joint net. Told-in tracks will be displayed in the Battery Communications Post and in the Engagement Control Station.

	PRIOR	FY 03	FY 04	FY 05	FY 06	Total
Full-up	23	20	15		58	
Retro			14	10	24	
Dismounted	1		5		6	
TOTAL	24	20	34	10	88	

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Major milestones are not applicable.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Totals																					
Inputs	15	3	3	2	1	5	5	5	5	9	9	8	8	5	5						
Outputs	14	1	3	3	2	1	5	5	5	5	9	9	8	8	5	5					

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs																					88
Outputs																					88

METHOD OF IMPLEMENTATION:

	ADMINISTRATIVE LEADTIME:				PRODUCTION LEADTIME:			
Contract Dates:	FY 2004	Apr 04	FY 2005	Apr 05	6 Months	FY 2006		6 Months
Delivery Date:	FY 2004	Oct 04	FY 2005	Oct 04		FY 2006		

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): BCP (Link 16/JTIDS) [MOD 3] 1-97-03-1246

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity	24	10.0	20	12.3	34	17.4	10	6.6											88	46.3
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware	0																			
FY2002 & Prior Equip -- Kits	24	1.2																	24	1.2
FY2003 Equip -- Kits			20	1.5															20	1.5
FY2004 Equip -- Kits					34	1.7													34	1.7
FY2005 Equip -- Kits							10	0.7											10	0.7
FY2006 Equip -- Kits																				
FY2007 Equip -- Kits																				
FY2008 Equip -- Kits																				
FY2009 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	24	1.2	20	1.5	34	1.7	10	0.7	0.0	88	5.1									
Total Procurement Cost		11.2		13.8		19.1		7.3		0.0		51.4								

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Tactical Command System [MOD 4] 1-98-03-1251

MODELS OF SYSTEM AFFECTED:

DESCRIPTION/JUSTIFICATION:

Provides for a modification/integration of the existing Tactical Command System shelters to integrate CHS-2 computers.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Major milestones are not applicable.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	15																			
Outputs	15																			

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		15
Outputs																		15

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2004

Delivery Date: FY 2004

ADMINISTRATIVE LEADTIME:

FY 2005

FY 2005

3 Months

PRODUCTION LEADTIME:

FY 2006

FY 2006

6 Months

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Tactical Command System [MOD 4] 1-98-03-1251

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity	15	2.4																	15	2.4
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY2002 & Prior Equip -- Kits	0																			
FY2003 Equip -- Kits	15	0.1																		0.1
FY2004 Equip -- Kits																				
FY2005 Equip -- Kits																				
FY2006 Equip -- Kits																				
FY2007 Equip -- Kits																				
FY2008 Equip -- Kits																				
FY2009 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	15	0.1		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.1
Total Procurement Cost		2.5		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		2.5

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: RAM MODS [MOD 5] 1-98-03-1249

MODELS OF SYSTEM AFFECTED: Radar, ECS, ICC, LS, BME, BMG, CRG

DESCRIPTION/JUSTIFICATION:

This modification provides corrections to problems in the field which have been identified and incorporated into Engineering Change Proposals (ECPs). Corrections included in this Materiel Change involve improvements to the Radar, Engagement Control Station (ECS), Information and Coordination Central (ICC), Launching Station (LS), Battalion Maintenance Equipment/Group (BME/BMG), Communications Relay Group (CRG) and ISE/PFASC Shop Sets. The purpose of this modification is the acquisition and installation of retrofit modification kits to bring fielded PATRIOT hardware up to the production baseline configuration.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Major milestones not applicable.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Totals																						
Inputs	1240	60	60	91	91	91	90	58	58	57	57	214	213	213	213	137	137	137	137	240	239	
Outputs	1179	61	60	60	91	91	91	90	58	58	57	57	214	213	213	213	137	137	137	137	240	240

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs	239	239	317	317	317	317	308	308	308	308												6811
Outputs	239	239	239	317	317	317	317	308	308	308	308	308										6811

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: 6 Months

PRODUCTION LEADTIME: 6 Months

Contract Dates: FY 2004 Dec 03

FY 2005 Dec 04

FY 2006 Dec 05

Delivery Date: FY 2004 Jun 04

FY 2005 Jun 05

FY 2006 Jun 06

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): RAM MODS [MOD 5] 1-98-03-1249

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity	1360	24.4	363	9.4	230	8.8	853	31.5	548	20.3	957	35.4	1268	46.9	1232	45.5			6811	222.2
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware	0																			
FY2002 & Prior Equip -- Kits	1360	2.6																	1360	2.6
FY2003 Equip -- Kits			363	1.3															363	1.3
FY2004 Equip -- Kits					230	1.2													230	1.2
FY2005 Equip -- Kits							853	4.3											853	4.3
FY2006 Equip -- Kits									548	2.8									548	2.8
FY2007 Equip -- Kits											957	4.8							957	4.8
FY2008 Equip -- Kits													1268	6.4					1268	6.4
FY2009 Equip -- Kits															1232	6.2			1232	6.2
TC Equip- Kits																				
Total Installment	1360	2.6	363	1.3	230	1.2	853	4.3	548	2.8	957	4.8	1268	6.4	1232	6.2		0.0	6811	29.6
Total Procurement Cost		27.0		10.7		10.0		35.8		23.1		40.2		53.3		51.7		0.0		251.8

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Radar Phase III [MOD 6] 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 MILESTONES:

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

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	0									1	1	1	1	1	2	1	2				
Outputs	0										1	1	1	1	1	2	1	2			

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs																					10
Outputs																					10

METHOD OF IMPLEMENTATION:		ADMINISTRATIVE LEADTIME:	5 Months	PRODUCTION LEADTIME:	24 Months
Contract Dates:	FY 2004 Dec 03	FY 2005		FY 2006	
Delivery Date:	FY 2004 Nov 05	FY 2005		FY 2006	

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Radar Phase III [MOD 6] 1-89-03-1231

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E																				
Procurement																					
Kit Quantity			4	38.5	6	57.7														10	96.2
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
Installation of Hardware	0																				
FY2002 & Prior Equip -- Kits																					
FY2003 Equip -- Kits			4	5.2																4	5.2
FY2004 Equip -- Kits					6	7.9														6	7.9
FY2005 Equip -- Kits																					
FY2006 Equip -- Kits																					
FY2007 Equip -- Kits																					
FY2008 Equip -- Kits																					
FY2009 Equip -- Kits																					
TC Equip- Kits																					
Total Installment	0	0.0	4	5.2	6	7.9		0.0		0.0	10	13.1									
Total Procurement Cost		0.0		43.7		65.6		0.0		0.0		109.3									

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: CDI Phase III [MOD 7] 1-92-03-1238

MODELS OF SYSTEM AFFECTED: Radar

DESCRIPTION/JUSTIFICATION:

CDI III involves the integration of state-of-the-art High Range Resolution (HRR) technology into the PATRIOT radar. This capability will provide for Tactical Ballistic Missile (TBM)/debris discrimination and categorization of Air Breathing Targets (ABT).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

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

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	0								1	1	1	1	1	2	1	2				
Outputs	0									1	1	1	1	1	2	1	2			

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		10
Outputs																		10

METHOD OF IMPLEMENTATION:	ADMINISTRATIVE LEADTIME:				5 Months	PRODUCTION LEADTIME:				24 Months
Contract Dates:	FY 2004	Dec 03	FY 2005			FY 2006				
Delivery Date:	FY 2004	Nov 05	FY 2005			FY 2006				

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): CDI Phase III [MOD 7] 1-92-03-1238

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity			4	15.0	6	22.4													10	37.4
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware	0																			
FY2002 & Prior Equip -- Kits																				
FY2003 Equip -- Kits			4	2.0															4	2.0
FY2004 Equip -- Kits					6	3.1													6	3.1
FY2005 Equip -- Kits																				
FY2006 Equip -- Kits																				
FY2007 Equip -- Kits																				
FY2008 Equip -- Kits																				
FY2009 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	0	0.0	4	2.0	6	3.1		0.0		0.0	10	5.1								
Total Procurement Cost		0.0		17.0		25.5		0.0		0.0		42.5								

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: TCS (TIBS/IBS, FO, C4I, NMNG) [MOD 8] 1-01-01-1251

MODELS OF SYSTEM AFFECTED:

DESCRIPTION/JUSTIFICATION:

Provides for implementation of the Tactical Information Broadcast Service (TIBS) updates and Integrated Broadcast Service (IBS) HW and SW at the PATRIOT BN. This includes integration of the Joint Tactical Terminal (JTT) and integration of the IBS.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Major milestones are not applicable.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	0					5	5			4	4			1	2				3	3	
Outputs	0						5	5			4	4			1	2				3	3

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs		4	3																		34	
Outputs			4	3																		34

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: 33 Months

PRODUCTION LEADTIME: 12 Months

Contract Dates: FY 2004 Mar 04

FY 2005 Mar 05

FY 2006 Mar 06

Delivery Date: FY 2004 Mar 05

FY 2005 Mar 06

FY 2006 Mar 07

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): TCS (TIBS/IBS, FO, C4I, NMNG) [MOD 8] 1-01-01-1251

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity			10	12.4	8	9.9	3	9.9	6	7.9	7	8.6							34	48.7
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware	0																			
FY2002 & Prior Equip -- Kits																				
FY2003 Equip -- Kits			10	1.9															10	1.9
FY2004 Equip -- Kits					8	1.5													8	1.5
FY2005 Equip -- Kits							3	1.5											3	1.5
FY2006 Equip -- Kits									6	1.2									6	1.2
FY2007 Equip -- Kits											7	1.3							7	1.3
FY2008 Equip -- Kits																				
FY2009 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	0	0.0	10	1.9	8	1.5	3	1.5	6	1.2	7	1.3		0.0		0.0		0.0	34	7.4
Total Procurement Cost		0.0		14.3		11.4		11.4		9.1		9.9		0.0		0.0		0.0		56.1

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Recapitalization [MOD 9] 1-01-01-1252

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

DESCRIPTION/JUSTIFICATION:

Rebuild and selected upgrade of fielded systems to ensure operational readiness and a zero time/zero mile system. Program plan is to recap one battalion per year.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Major milestones not applicable.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	0					1				1				1				1		
Outputs	0							1				1				1				1

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs		1				1				1								7
Outputs				1				1				1						7

METHOD OF IMPLEMENTATION:	ADMINISTRATIVE LEADTIME: 3 Months				PRODUCTION LEADTIME: 12 Months			
Contract Dates:	FY 2004	Mar 04	FY 2005	Mar 05	FY 2006	Mar 06	FY 2007	Mar 07
Delivery Date:	FY 2004	Mar 05	FY 2005	Mar 06	FY 2006	Mar 07		

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Recapitalization [MOD 9] 1-01-01-1252

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement	0																			
Kit Quantity	0		1	24.2	1	33.0	1	30.5	1	41.2	1	26.9	1	19.0	1	13.2			7	188.0
Installation Kits	0																			
Installation Kits, Nonrecurring	0																			
Equipment	0																			
Equipment, Nonrecurring	0																			
Engineering Change Orders	0																			
Data	0																			
Training Equipment	0																			
Support Equipment	0																			
Other	0																			
Interim Contractor Support	0																			
Installation of Hardware	0																			
FY2002 & Prior Equip -- Kits	0																			
FY2003 Equip -- Kits	0		1	2.4															1	2.4
FY2004 Equip -- Kits	0				1	3.3													1	3.3
FY2005 Equip -- Kits	0						1	3.0											1	3.0
FY2006 Equip -- Kits	0								1	4.1									1	4.1
FY2007 Equip -- Kits	0										1	2.7							1	2.7
FY2008 Equip -- Kits	0												1	1.9					1	1.9
FY2009 Equip -- Kits	0														1	1.3			1	1.3
TC Equip- Kits	0																			
Total Installment	0	0.0	1	2.4	1	3.3	1	3.0	1	4.1	1	2.7	1	1.9	1	1.3		0.0	7	18.7
Total Procurement Cost		0.0		26.6		36.3		33.5		45.3		29.6		20.9		14.5		0.0		206.7

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

P-1 Item Nomenclature
STINGER MODS (C20000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

C14900, C16000

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog.
Proc Qty												
Gross Cost	124.7	33.0	5.8	1.5	1.0							165.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	124.7	33.0	5.8	1.5	1.0							165.9
Initial Spares												
Total Proc Cost	124.7	33.0	5.8	1.5	1.0							165.9
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The Stinger Block I missile upgrade incorporates hardware and software modifications into the Stinger-Reprogrammable Micro-Processor (RMP) Missile System to increase overall missile performance in certain engagement scenarios and to resolve a key aviation deficiency, which requires aviation platforms to super-elevate. The Stinger Block I Upgrade modifications maintain compatibility with all current and planned command and launch platforms, including Air-To-Air Stinger, Avenger, and the gripstock used in shoulder-fired applications. This system supports the Current Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY04 funds will complete upgrades for Stinger firing platforms to launch Block I missiles. The Stinger Block I program corrects deficiencies in precision engagements and information dominance against head/tail-on and slow-moving targets, counter-measures, and night-time engagements and corrects a safety deficiency whereby aviation platforms must super-elevate to fire the missile.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /3/Modification of missiles	P-1 Item Nomenclature STINGER BLK I UPGRADES (C21300)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: C14900, C16000
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	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost	123.2	33.0	5.8	1.5	1.0							164.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	123.2	33.0	5.8	1.5	1.0							164.4
Initial Spares												
Total Proc Cost	123.2	33.0	5.8	1.5	1.0							164.4
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

Block I hardware and software modifications to the Stinger-Reprogrammable Micro-Processor (RMP) Missile System improve performance against targets which are slow-moving, employ advanced counter-measures, or operate at night. The Stinger Block I Upgrade modifications maintain compatibility with all current and planned command and launch platforms, including Air-To-Air Stinger, Avenger, and the gripstock used in shoulder-fired applications. In order to take advantage of the Block I missile's improved capability, each firing platform must be modified. For Man Portable Air Defense System (MANPADS) gripstocks, new Electronically Erasable Read Only Memory Modules must be procured and installed in existing, fielded gripstocks. For Air-to-Air Stinger, Bradley Linebacker, and Avenger, new circuit card assemblies must be procured and installed in each system's Interface Electronics Assembly. This system supports the Current Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY04 funds will complete upgrades for Stinger firing platforms to launch Block I missiles. The Stinger Block I program corrects deficiencies in precision engagements and information dominance against head/tail-on and slow-moving targets, counter-measures, and night-time engagements and corrects a safety deficiency whereby aviation platforms must super-elevate to fire the missile.

Exhibit P-40M, Budget Item Justification Sheet

Date: February 2004

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

P-1 Item Nomenclature
STINGER BLK I UPGRADES (C21300)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

C14900, C16000

Description		Fiscal Years									
OSIP NO.	Classification	2002 & PR	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	TC	Total
Stinger Block I Platform Upgrades (C21300)											
01-87-03-1510	Operational	14.2	1.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7
Stinger Block I Missile Upgrades (C21300)											
01-87-03-1510	Operational	138.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	138.9
Stinger Troop Proficiency Trainer											
TBP	Operational	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
Linebacker Training Devices											
TBP	Operational	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
Totals		162.0	1.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	164.5

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Stinger Block I Platform Upgrades (C21300) [MOD 1] 01-87-03-1510

MODELS OF SYSTEM AFFECTED: Manpads, Avenger, Bradley Linebacker, Kiowa Warrior

DESCRIPTION/JUSTIFICATION:

In order to take advantage of the Block I missile's improved capability, each firing platform must be modified. For MANPADS gripstocks, new Electronically Erasable Read Only Memory (EEPROM) Modules must be procured and installed in existing, fielded gripstocks. For Air-to-Air Stinger, Bradley Linebacker, and Avenger, new A-1 circuit card assemblies must be procured and installed in each system's Interface Electronics Assembly. Without modifications, Block I missiles fired from these platforms will perform the same as Stinger-RMP missiles, negating the Block I missile's improved performance.

ROM Modules are installed by government employees; A-1 circuit card assemblies are installed by contractors.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Development was completed in 1997.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Totals																					
Inputs	6251																				
Outputs	4407	88	50	0	0	238	195	350	343	330	250										

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		6251
Outputs																		6251

METHOD OF IMPLEMENTATION:	Contractor & In-House	ADMINISTRATIVE LEADTIME:	0 Months	PRODUCTION LEADTIME:	0 Months
Contract Dates:	FY 2004 N/A	FY 2005 N/A		FY 2006 N/A	
Delivery Date:	FY 2004 N/A	FY 2005 N/A		FY 2006 N/A	

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Stinger Block I Platform Upgrades (C21300) [MOD 1] 01-87-03-1510

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E	0																		
Procurement	0																			
Kit Quantity	6251	13.0																	6251	13.0
Installation Kits	0																			
Installation Kits, Nonrecurring	0																			
Equipment	0																			
Equipment, Nonrecurring	0																			
Engineering Change Orders	0																			
Data	0																			
Training Equipment	0																			
Support Equipment	0																			
Other	0																			
Interim Contractor Support	0																			
Installation of Hardware	0																			
FY2002 & Prior Equip -- Kits	4407	1.2																	4407	1.2
FY2003 Equip -- Kits	0		138	1.5															138	1.5
FY2004 Equip -- Kits	0				1126	1.0													1126	1.0
FY2005 Equip -- Kits	0						580												580	
FY2006 Equip -- Kits	0																			
FY2007 Equip -- Kits	0																			
FY2008 Equip -- Kits	0																			
FY2009 Equip -- Kits	0																			
TC Equip- Kits	0																			
Total Installment	4407	1.2	138	1.5	1126	1.0	580	0.0		0.0		0.0		0.0		0.0		0.0	6251	3.7
Total Procurement Cost		14.2		1.5		1.0		0.0		0.0		0.0		0.0		0.0		0.0		16.7

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Stinger Block I Missile Upgrades (C21300) [MOD 2] 01-87-03-1510

MODELS OF SYSTEM AFFECTED: Manpads, Avenger, Bradley, Linebacker, Kiowa Warrior

DESCRIPTION/JUSTIFICATION:

The Stinger Block I Missile Upgrade material change incorporates hardware and software modifications into the Stinger-RMP missile system to increase overall missile performance in certain engagement scenarios and to resolve a key aviation deficiency, which requires aviation platforms to super-elevate. The engagement scenarios in which missile performance improves include head/tail-on and slow-moving targets, counter-measures, and nighttime engagements. These changes include hardware changes to the missile, and software changes to the command and launch platforms, to include Air-to-Air Stinger, Avenger, and gripstocks used in shoulder-fired applications. This material change was recommended by the Air-to-Air Missile General Officer's Steering Committee as the near-term solution to the Stinger-RMP deficiencies.

Hardware and installations costs are included in the contract price for retrofits.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Development was completed in 1997.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	8021																			
Outputs	6801	284	343	357	236															

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		8021
Outputs																		8021

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 0 Months PRODUCTION LEADTIME: 0 Months
 Contract Dates: FY 2004 N/A FY 2005 N/A FY 2006 N/A
 Delivery Date: FY 2004 N/A FY 2005 N/A FY 2006 N/A

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Stinger Block I Missile Upgrades (C21300) [MOD 2] 01-87-03-1510

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E	0																			
Procurement	0																				
Kit Quantity	8021	138.9																		8021	138.9
Installation Kits	0																				
Installation Kits, Nonrecurring	0																				
Equipment	0																				
Equipment, Nonrecurring	0																				
Engineering Change Orders	0																				
Data	0																				
Training Equipment	0																				
Support Equipment	0																				
Other	0																				
Interim Contractor Support	0																				
Installation of Hardware	0																				
FY2002 & Prior Equip -- Kits	0																				
FY2003 Equip -- Kits	0																				
FY2004 Equip -- Kits	0																				
FY2005 Equip -- Kits	0																				
FY2006 Equip -- Kits	0																				
FY2007 Equip -- Kits	0																				
FY2008 Equip -- Kits	0																				
FY2009 Equip -- Kits	0																				
TC Equip- Kits	0																				
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
Total Procurement Cost		138.9		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	138.9

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Stinger Troop Proficiency Trainer [MOD 3] TBP

MODELS OF SYSTEM AFFECTED:

DESCRIPTION/JUSTIFICATION:

The Stinger Troop Proficiency Trainer (STPT) is the primary gunnery trainer for Stinger gunners and it is the only fielded deployable, scenario driven trainer available to units. The STPT is a lightweight, two man-portable training system which uses computer generated graphics and sound to provide a realistic training environment for Stinger gunners. The gunner views a missile-mounted display and reacts to pre-programmed scenarios with single or multiple threats and friendly aircraft. The current STPT has significant training deficiencies, has never been upgraded, and is experiencing growing obsolescence of components, making sustainment difficult. This effort will upgrade the system to correct major training deficiencies, improve realism, and replace obsolete components with commercial off the shelf items. The upgrade will eliminate the need for the manpower intensive Moving Target Simulator (MTS) and Improved MTS, resulting in additional O&S cost savings.

Hardware, software, and installation are included in the total contract price provided by the contractor.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

This involves commercial off the shelf equipment with integration of Stinger scenarios.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	14	6	18	20	21															
Outputs	3	5	6	6	18	20	21	21												

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		100
Outputs																		100

METHOD OF IMPLEMENTATION:	Contractor	ADMINISTRATIVE LEADTIME:	0 Months	PRODUCTION LEADTIME:	0 Months
Contract Dates:	FY 2004 N/A	FY 2005 N/A		FY 2006 N/A	
Delivery Date:	FY 2004 N/A	FY 2005 N/A		FY 2006 N/A	

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Stinger Troop Proficiency Trainer [MOD 3] TBP

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E	0																		
Procurement	0																			
Kit Quantity	100	3.1																	100	3.1
Installation Kits	0																			
Installation Kits, Nonrecurring	0																			
Equipment	0																			
Equipment, Nonrecurring	0																			
Engineering Change Orders	0																			
Data	0																			
Training Equipment	0																			
Support Equipment	0																			
Other	0																			
Interim Contractor Support	0																			
Installation of Hardware	0																			
FY2002 & Prior Equip -- Kits	0																			
FY2003 Equip -- Kits	0																			
FY2004 Equip -- Kits	0																			
FY2005 Equip -- Kits	0																			
FY2006 Equip -- Kits	0																			
FY2007 Equip -- Kits	0																			
FY2008 Equip -- Kits	0																			
FY2009 Equip -- Kits	0																			
TC Equip- Kits	0																			
Total Installment	0	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		3.1		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		3.1

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Linebacker Training Devices [MOD 4] TBP

MODELS OF SYSTEM AFFECTED:

DESCRIPTION/JUSTIFICATION:

The Bradley Linebacker Training systems are used to train soldiers in Bradley Linebacker weapon system engagements and operations. The training devices provide gunner and commander proficiency training in missile and gun engagement of aerial and ground targets. The devices provide force-on-force engagement training at the Combat Training Centers (CTC) and provide an After Action Review (AAR) capability for missile and gun live fire engagements. The Director of Training and doctrine, USAADASCH on 9 Jan 2001, modified training device requirements.

Hardware, software, and installation are included in the total contract price provided by the contractor.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

This involves commercial off the shelf equipment and scenarios with integration of aerial and ground targets for Stinger Missile engagements.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	49	9	9	9	12															
Outputs	24	12	13	9	9	12														

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		88
Outputs																		88

METHOD OF IMPLEMENTATION:	Contractor	ADMINISTRATIVE LEADTIME:	0 Months	PRODUCTION LEADTIME:	0 Months
Contract Dates:	FY 2004 N/A	FY 2005 N/A		FY 2006 N/A	
Delivery Date:	FY 2004 N/A	FY 2005 N/A		FY 2006 N/A	

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Linebacker Training Devices [MOD 4] TBP

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E	0																			
Procurement	0																				
Kit Quantity	88	5.8																	88	5.8	
Installation Kits	0																				
Installation Kits, Nonrecurring	0																				
Equipment	0																				
Equipment, Nonrecurring	0																				
Engineering Change Orders	0																				
Data	0																				
Training Equipment	0																				
Support Equipment	0																				
Other	0																				
Interim Contractor Support	0																				
Installation of Hardware	0																				
FY2002 & Prior Equip -- Kits	0																				
FY2003 Equip -- Kits	0																				
FY2004 Equip -- Kits	0																				
FY2005 Equip -- Kits	0																				
FY2006 Equip -- Kits	0																				
FY2007 Equip -- Kits	0																				
FY2008 Equip -- Kits	0																				
FY2009 Equip -- Kits	0																				
TC Equip- Kits	0																				
Total Installment	0	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
Total Procurement Cost		5.8		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	5.8

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /3/Modification of missiles	P-1 Item Nomenclature ITAS/TOW MODS (C61700)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost	747.2	69.7	60.5	58.9	19.1	9.8	9.7			44.3		1019.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	747.2	69.7	60.5	58.9	19.1	9.8	9.7			44.3		1019.2
Initial Spares	34.9											34.9
Total Proc Cost	782.1	69.7	60.5	58.9	19.1	9.8	9.7			44.3		1054.1
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The Improved Target Acquisition (ITAS) for the Tube-launched, Optically tracked, Wire command-link guided (TOW) is an upgrade to the light infantry's TOW 2 weapon system and provides a second generation forward-looking infrared capability that will enable defeat of threat armored vehicles at extended ranges in all expected battlefield conditions. ITAS provides an operational warfighting capability to ensure combat overmatch and dominance across the spectrum of operations. The missile modification Missile Ordnance Inhibit Circuit (MOIC) and Missile Conversion (MC) are required to meet training and safety requirements in order to maintain TOW gunner proficiency. The Counter Active Protection System modification provides the TOW 2B missile with the capability to counter Active Protection Systems currently being deployed on threat armor systems. ITAS supports the Current Transition path of the Transformation Campaign Plan (TCP).

Justification:

Funding in FY05 will procure training devices to meet Field Tactical Trainer (MILES) density requirement, fielding of systems, Contractor Fielding Support, application of TOW training missile conversion hardware procured in FY03, government asset layaway, engineering services and production delivery support.

This program received an FY04 Congressional increase of \$3.5 million for Improved Target Acquisition System (ITAS).

Exhibit P-40M, Budget Item Justification Sheet

Date: February 2004

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:

Description		Fiscal Years									
OSIP NO.	Classification	2002 & PR	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	TC	Total
Missile Conversion (HEAT TO PRACTICE)											
MC-1-82-03-3020	SAFETY	40.7	5.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	47.4
MISSILE MODIFICATION (MOIC)											
MC-1-82-03-3021	SAFETY	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
ITAS (IMPROVED TARGET ACQUISITION SYSTEM)											
MC-1-89-03-3028	OPERATIONAL	352.0	53.6	17.7	9.8	9.7	0.0	0.0	44.3	0.0	487.1
CAPS (COUNTER ACTIVE PROTECTION SYSTEM)											
MC-1-98-03-3030	OPERATIONAL	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
Totals		413.5	58.9	19.1	9.8	9.7	0.0	0.0	44.3	0.0	555.3

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Missile Conversion (HEAT TO PRACTICE) [MOD 1] MC-1-82-03-3020

MODELS OF SYSTEM AFFECTED: ITAS/TOW MISSILE SYSTEM BGM 71A, C, D) BTM 71A (C61700)

DESCRIPTION/JUSTIFICATION:

The modifications will convert TOW Basic, ITOW and TOW 2 heat missiles to practice missiles and install a Missile Ordnance Inhibit Circuit (MOIC) on missiles used for training. To prevent flyback, the MOIC opens the circuit between the missile battery and flight motor ignition and the safe and arming unlatch mechanism in the event of delay in ignition of the flight motor. Epoxy-coated T250 steel was incorporated into a new design as a result of launch motor failures.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	63213					1500	1500	14												
Outputs	63213					1004	1005	1005												

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		66227
Outputs																		66227

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 12 Months PRODUCTION LEADTIME: 3 Months

Contract Dates: FY 2004 Jul 03 FY 2005 FY 2006

Delivery Date: FY 2004 Oct 03 FY 2005 FY 2006

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Missile Conversion (HEAT TO PRACTICE) [MOD 1] MC-1-82-03-3020

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E	0																			
Procurement	0																				
Kit Quantity	0																				
Installation Kits	0																				
Installation Kits, Nonrecurring	0																				
Equipment	63213	25.8	3014	5.3															66227	31.1	
Equipment, Nonrecurring	0																				
Engineering Change Orders	0																				
Data	0																				
Training Equipment	0																				
Support Equipment	0																				
Other	0																				
Interim Contractor Support	0																				
Installation of Hardware	0																				
FY2002 & Prior Equip -- Kits	63213	14.9																	63213	14.9	
FY2003 Equip -- Kits	0				3014	1.4													3014	1.4	
FY2004 Equip -- Kits	0																				
FY2005 Equip -- Kits	0																				
FY2006 Equip -- Kits	0																				
FY2007 Equip -- Kits	0																				
FY2008 Equip -- Kits	0																				
FY2009 Equip -- Kits	0																				
TC Equip- Kits	0																				
Total Installment	63213	14.9		0.0	3014	1.4		0.0		0.0		0.0		0.0		0.0		0.0	66227	16.3	
Total Procurement Cost		40.7		5.3		1.4		0.0		0.0		0.0		0.0		0.0		0.0		47.4	

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: ITAS (IMPROVED TARGET ACQUISITION SYSTEM) [MOD 3] MC-1-89-03-3028

MODELS OF SYSTEM AFFECTED: TOW Missile System Launcher (59300)

DESCRIPTION/JUSTIFICATION:

The Tube-launched, Optically tracked, Wire command-link guided (TOW) Improved Target Acquisition System (ITAS) is a critical system for Army forces, selected as the anti-tank system for the Anti-Tank Guided Missile (ATGM) variant and as the substitute for the Mobile Gun System (MGS) variant during MGS delays. The ATGM provides comparable lethality and operational utility to the MGS. ITAS is a replacement for the light infantry's TOW 2 weapon system and provides a capability that defeats threat armored vehicles and other assault targets such as bunkers and buildings at extended ranges in all battlefield conditions. The ITAS meets the needs of the U.S. Army and the combatant commanders. ITAS provides an operational warfighting capability to ensure combat overmatch and dominance across the spectrum of operations. TOW ITAS is an extremely lethal anti-armor system that also provides significant reconnaissance, surveillance, and target acquisition (RSTA) capabilities with improved survivability. ITAS provides the U.S. Army with a responsive, agile and lethal anti-armor option and capability for regional engagement, peacekeeping, crisis response, and sustained land force operations.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Totals																					
Inputs	315	53	49	31	31	25	28	26	22	22	21	14									
Outputs	256	40	37	2	65	20	60	40	20	20		20	57								

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs						10	40	25													712
Outputs														10	40	25					712

METHOD OF IMPLEMENTATION:

Contract Dates:	FY 2004	Dec 01	ADMINISTRATIVE LEADTIME:	10 Months	PRODUCTION LEADTIME:	18 Months
Delivery Date:	FY 2004	Jun 03	FY 2005	Dec 02	FY 2006	Dec 03
	FY 2004	Jun 03	FY 2005	Jun 04	FY 2006	Jun 05

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): ITAS (IMPROVED TARGET ACQUISITION SYSTEM) [MOD 3] MC-1-89-03-3028

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E	0																			
Procurement	0																				
Kit Quantity	551		86												75					712	
Installation Kits	0																				
Installation Kits, Nonrecurring	0																				
Equipment	0	310.8		42.6		9.1		3.3		8.2					39.9					413.9	
Equipment, Nonrecurring	0																				
Engineering Change Orders	0																				
Data	0	1.1		0.1											1.0					2.2	
Training Equipment	0	18.8		7.8		4.9		4.0							2.4					37.9	
Support Equipment	0																				
Other	0	3.0		0.4											1.0					4.4	
ICS/CLS Contractor Support	0	17.8		2.5		3.4		2.3		1.5										27.5	
Installation of Hardware	0																				
FY2002 & Prior Equip -- Kits	256	0.5	144	0.2	140	0.3	11	0.0												551	1.0
FY2003 Equip -- Kits	0						86	0.2												86	0.2
FY2004 Equip -- Kits	0																				
FY2005 Equip -- Kits	0																				
FY2006 Equip -- Kits	0																				
FY2007 Equip -- Kits	0																				
FY2008 Equip -- Kits	0																				
FY2009 Equip -- Kits	0																				
TC Equip- Kits	0																75			75	
Total Installment	256	0.5	144	0.2	140	0.3	97	0.2		0.0		0.0		0.0		0.0	75	0.0	712	1.2	
Total Procurement Cost		352.0		53.6		17.7		9.8		9.7		0.0		0.0		44.3		0.0		487.1	

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /3/Modification of missiles	P-1 Item Nomenclature MLRS MODS (C67500)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost	246.0	7.1	13.4	22.2	19.8	19.0	14.6	6.6	5.3	1.8	27.0	382.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	246.0	7.1	13.4	22.2	19.8	19.0	14.6	6.6	5.3	1.8	27.0	382.8
Initial Spares	14.6	0.8	0.9	5.5	1.3	5.1	5.2	0.5	1.0	1.0	9.0	44.9
Total Proc Cost	260.6	7.9	14.3	27.7	21.0	24.0	19.8	7.1	6.4	2.8	36.0	427.7
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The M270A1 upgraded Multiple Launch Rocket System (MLRS) launcher is mounted on a Bradley Fighting Vehicle chassis, and is capable of firing the MLRS Family of Munitions (MFOM) and the Army Tactical Missile System (ATACMS) Family of Munitions (AFOM), including precision munitions, to a range of 300KM. The M270A1 is capable of firing either 12 MFOM rockets or 2 AFOM missiles from a single launcher. The MLRS modification program supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

The FY05 program funding supports Interim Improved Position Determining System (IPDS) Launcher Support, Selective Availability Anti-Spoofing Module (SAASM), Joint Technical Architecture-Army (JTA-A), Improved Weapons Interface Unit (IWIU), M270A1 Generator Improvements, Obsolescence Mitigation/Engineering Change Proposal Reliability Integration (to include Environmental Control Unit (ECU)/Auxiliary Power Unit (APU), 600hp Engine Carrier Modification and Loader-Launcher Module (LLM) Disable Switch.

Exhibit P-40M, Budget Item Justification Sheet

Date: February 2004

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:							

Description		Fiscal Years									
OSIP NO.	Classification	2002 & PR	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	TC	Total
Inactive Mods											
Prior Year MCs	Oper/Safety/Reliab	220.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	220.3
Interim Improved Position Determining System Lchr											
1-95-03-0528	Operational	23.9	0.6	0.5	0.3	0.0	0.0	0.0	0.0	0.0	25.3
Selective Availability Anti-Spoofing Module											
1-96-03-0534	Operational	0.0	0.0	0.0	5.3	2.7	0.0	0.0	0.0	0.0	8.0
Joint Technical Architecture-Army (JTA-A)											
1-97-03-0537	Operational	11.1	0.4	0.0	0.5	0.2	0.0	0.0	0.0	0.0	12.2
Improved Weapons Interface Unit Modification MOD											
1-99-03-0546	Operational	0.0	5.5	8.6	4.1	0.9	0.1	0.1	0.0	0.0	19.3
M270A1 Generator Improvements											
1-02-02-0553	Reliability	0.0	0.8	0.0	0.4	0.2	0.0	0.0	0.0	0.0	1.4
Obsolescence Mitigation/ECP Reliability Intg											
1-99-03-Obse	Oper/Reliab	11.2	5.0	7.4	2.7	2.1	1.0	2.8	1.7	27.1	61.0
600 hp Engine Conversion											
1-02-02-0551	Reliability	0.0	9.4	0.3	2.5	0.0	0.0	0.0	0.0	0.0	12.2
LLM Disable Switch											
1-03-02-0559	Safety	0.0	0.5	0.0	0.4	0.2	0.0	0.0	0.0	0.0	1.1
Cordless Vehicular Intercommunication (VIS)											
1-04-02-0565		0.0	0.0	0.0	0.0	0.0	2.6	1.3	0.2	0.0	4.1

Exhibit P-40M, Budget Item Justification Sheet

Date:

February 2004

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:

Description

Fiscal Years

OSIP NO.	Classification	2002 & PR	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	TC	Total
Auxiliary Power Unit/Environmental Control Unit											
1-02-02-0552	Operational	0.0	0.0	2.9	2.7	8.2	2.8	1.2	0.0	0.0	17.8
Totals		266.5	22.2	19.7	18.9	14.5	6.5	5.4	1.9	27.1	382.7

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Selective Availability Anti-Spoofing Module [MOD 3] 1-96-03-0534

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

DESCRIPTION/JUSTIFICATION:

Enhancements to the Global Positioning System (GPS) are required to prevent tampering from outside sources. This change is required by the National Security Agency (NSA) to provide tamper resistant measures in maintaining national security with respect to GPS downlinks. These programs will be compatible with the emerging Electronic Key Management System (EKMS) and will call for the modification of the Position Navigation Unit (PNU). Currently "red keys" are issued for use and the SAASM program will allow the use of a "black key." This modification will include SAASM installation to a GPS Interface Circuit Card Assembly (CCA) and revision of the PNU back plane. In addition, LRIP 1 & LRIP 2 PNUs will be upgraded from a "486 processor to a Power PC 2 (PPC2) Executive Processor (EP). This program requires completion by before FY09 to align with approved PFRMS (MLRS/ATACMS) waiver for full conversion from "red keys" to "black keys.". This modification is critical for future combat operations and weapons systems accuracy in support of the Army's Transformation Campaign Plan (TCP).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Obsolescence of the original GEM-3 GPS receiver, accelerated development and integration of the PNU NAVSTRIKE GPS receiver circuit card assembly has been completed. The Critical Design Review was completed in 4QFY03. This change to the PNU is to be incorporated into the launcher deliveries for the LRIP 5 M270A1 production vehicles scheduled for fielding in 4QFY04.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	0													31	32	32		29	30		
Outputs	0														38	57		21	38		

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs																					154
Outputs																					154

METHOD OF IMPLEMENTATION:	Depot	ADMINISTRATIVE LEADTIME:	3 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2004	FY 2005	Jan 05	FY 2006	Jan 06
Delivery Date:	FY 2004	FY 2005	Jan 06	FY 2006	Jan 07

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Selective Availability Anti-Spoofing Module [MOD 3] 1-96-03-0534

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E	0																		
Procurement	0																			
Kit Quantity	0																			
Installation Kits	0						95	5.3	59	2.7									154	8.0
Installation Kits, Nonrecurring	0																			
Equipment	0																			
Equipment, Nonrecurring	0																			
Engineering Change Orders	0																			
Data	0																			
Training Equipment	0																			
Support Equipment	0																			
Other	0								95	0.0	59	0.0							154	
Interim Contractor Support	0																			
Installation of Hardware	0																			
FY2002 & Prior Equip -- Kits	0																			
FY2003 Equip -- Kits	0																			
FY2004 Equip -- Kits	0																			
FY2005 Equip -- Kits	0								95	0.0									95	
FY2006 Equip -- Kits	0										59	0.0							59	
FY2007 Equip -- Kits	0																			
FY2008 Equip -- Kits	0																			
FY2009 Equip -- Kits	0																			
TC Equip- Kits	0																			
Total Installment	0	0.0		0.0		0.0		0.0	95	0.0	59	0.0		0.0		0.0		0.0	154	8.0
Total Procurement Cost		0.0		0.0		0.0		5.3		2.7		0.0		0.0		0.0		0.0		8.0

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Improved Weapons Interface Unit Modification MOD [MOD 5] 1-99-03-0546

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

DESCRIPTION/JUSTIFICATION:

The development of the Guided MLRS (GMLRS) Rocket and HIMARS has generated a requirement for a new circuit card to be added to the Weapons Interface Unit (WIU). This circuit card, known as the Ethernet Hub card and a new W420 Cable Assembly which contains improved signal distribution functions to allow additional missiles such as GMLRS Rocket to fire from our existing M270A1 Improved Fire Control System (IFCS). This change to the WIU, known as the Improved Weapons Interface Unit (IWIU) Modification only requires modification to LRIP 1 through LRIP 5 WIUs, in lieu of a costly modification program to standardize the interface of the Guided MLRS Rocket and other Missile/Launch Pod Containers. These changes are planned for incorporation into 195 Weapons Interface Units (WIU). Procurement is required to retrofit the WIU to Launchers produced in LRIP-1-5. This modification is essential to standardize WIU configurations and eliminate modification costs to missiles and rockets.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Development began in FY01, with IWIU Qualification and System Integration Testing being completed in 1QFY04. The Improved Weapons Interface Units (IWIU) Flight Test occurred in 4QFY03. This common configuration IWIU will be incorporated into M270A1 FRP 1 and HIMARS LRIP 1 production deliveries. The contract for the procurement of IWIU seeds was awarded in 1QFY04 for a quantity of 23 seeds.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs								24	24	24	24	24	24	24	24	3				
Outputs										1		19	21	8	19	6	19	15	12	19

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		195
Outputs		19		19		18												195

METHOD OF IMPLEMENTATION: Depot ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 9 Months
 Contract Dates: FY 2004 Jan 04 FY 2005 Jan 05 FY 2006 Jan 06
 Delivery Date: FY 2004 Oct 04 FY 2005 Oct 05 FY 2006 Oct 06

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Improved Weapons Interface Unit Modification MOD [MOD 5] 1-99-03-0546

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity																				
Installation Kits					107	0.7	55	0.3	10	0.1									172	1.1
Installation Kits, Nonrecurring					107	7.2	55	3.8	10	0.7									172	11.7
Equipment																				
Equipment, Nonrecurring			23	5.5															23	5.5
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment					1	0.7													1	0.7
Other							20	0.0	54	0.0	65	0.0	56	0.0					195	
Interim Contractor Support																				
Installation of Hardware																				
FY 2002 & Prior Equip -- Kits																				
FY 2003 -- Kits							20	0.0	3	0.0									23	
FY 2004 Equip -- Kits									51	0.1	56	0.1							107	0.2
FY 2005 Equip -- Kits											9	0.0	46	0.1					55	0.1
FY 2006 Equip -- Kits													10	0.0					10	
FY 2007 Equip -- Kits																				
FY 2008 Equip -- Kits																				
FY 2009 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0	20	0.0	54	0.1	65	0.1	56	0.1		0.0		0.0	195	0.3
Total Procurement Cost		0.0		5.5		8.6		4.1		0.9		0.1		0.1		0.0		0.0		19.3

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Obsolescence Mitigation/ECP Reliability Intg [MOD 7] 1-99-03-Obse

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

DESCRIPTION/JUSTIFICATION:

Technology obsolescence is dictating the replacement of many launcher components. Because of rapid electronic obsolescence, this modification plans for future replacement of launcher electronic components. Circuit cards in the Line Replaceable Units, e.g., Improved Electronic Unit and Fire Control Unit are already obsolete or rapidly approaching obsolescence. Funding on this program procures modification kits which will incorporate improved components necessary to replace parts no longer available. In addition, this modification reestablishes the MLRS baseline at the optimal configuration for integration of the Improved Fire Control System and the Improved Launcher Mechanical System by aiding the calibration of the system, providing required accuracy levels for new and future munitions, increasing reliability of early configuration of the launcher which reduces operational and support costs and eliminating noise and multiple software requirements. Additional hardware requirements are expected due to increased digitization equipment added to the cab. This modification program will reduce logistics supportability cost and will provide enhanced equipment in support of the Counterattack Corps.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Modifications will be incorporated into production based on obsolescence analysis and determination.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	0																			
Outputs	0																			

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		0
Outputs																		

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 0 Months PRODUCTION LEADTIME: 0 Months

Contract Dates: FY 2004 FY 2005 FY 2006

Delivery Date: FY 2004 FY 2005 FY 2006

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Obsolescence Mitigation/ECP Reliability Intg [MOD 7] 1-99-03-Obse

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E	0																		
Procurement	0																			
Kit Quantity	0																			
Installation Kits	0																			
Installation Kits, Nonrecurring	0																			
Equipment	0	11.2		5.0		7.4		2.7		2.1		1.0		2.8		1.7		27.1		61.0
Equipment, Nonrecurring	0																			
Engineering Change Orders	0																			
Data	0																			
Training Equipment	0																			
Support Equipment	0																			
Other	0																			
Interim Contractor Support	0																			
Installation of Hardware	0																			
FY2002 & Prior Equip -- Kits	0																			
FY2003 Equip -- Kits	0																			
FY2004 Equip -- Kits	0																			
FY2005 Equip -- Kits	0																			
FY2006 Equip -- Kits	0																			
FY2007 Equip -- Kits	0																			
FY2008 Equip -- Kits	0																			
FY2009 Equip -- Kits	0																			
TC Equip- Kits	0																			
Total Installment	0	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		11.2		5.0		7.4		2.7		2.1		1.0		2.8		1.7		27.1		61.0

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: 600 hp Engine Conversion [MOD 8] 1-02-02-0551

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

DESCRIPTION/JUSTIFICATION:

This modification replaces the current 500 Horsepower (hp) Cummins Diesel Engine with a higher powered 600hp Cummins Diesel Engine. Engines will be remanufactured by Cummins to the current 600hp M270A1 configuration and the M993A1/M270A1 Carrier will need to be reconfigured with modified muffler, air cleaner, cold start, electrical, and fuel systems to integrate the 600 hp Engine. This modification is necessary because since FY02 Cummins no longer produces the 500 hp engine. The 600hp engine configuration will be the only engine Cummins will support for future production and spares and this supportability will exist for at least an additional 10 years. This improvement is more fuel efficient, will provide more power, four times the reliability as the 500hp engine, has reduced emissions over the 500 hp engine, and will provide commonality with the Bradley A2 & A3 family of vehicles. A total of 155 modification kits and remanufactured engines have been procured for installation within the U.S. and Korea. This modification is critical for future combat operations and logistics in support of the Army's Transformation Campaign Plan (TCP).

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The development effort for integration into the M270A1 Launcher has been completed. This change began incorporation into LRIP 5 production in 3QFY03. Deliveries of the modification kits and remanufactured engines began in 4QFY03. An initial validation of modification documentation occurred 1QFY04 at RRAD.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs				13	20	18	21	54	28													
Outputs					11	20	15	10	3	19	29	40	7									

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						154
Outputs																						154

METHOD OF IMPLEMENTATION:	Depot	ADMINISTRATIVE LEADTIME:	3 Months	PRODUCTION LEADTIME:	3 Months
Contract Dates:	FY 2004 Jan 04	FY 2005		FY 2006	
Delivery Date:	FY 2004 Apr 04	FY 2005		FY 2006	

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): 600 hp Engine Conversion [MOD 8] 1-02-02-0551

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E																				
Procurement																					
Kit Quantity			155	5.5															155	5.5	
Installation Kits			155	2.8	24	0.0													179	2.8	
Installation Kits, Nonrecurring Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders Data																					
Training Equipment																					
Support Equipment			1	0.0															1	0.0	
Other					43	0.0	95	0.1											138	0.1	
Interim Contractor Support																					
Installation of Hardware																					
FY 2002 & Prior Equip -- Kits																					
FY 2003 -- Kits			46	1.1	13	0.3	95	2.4											154	3.8	
FY 2004 Equip -- Kits																					
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 Equip -- Kits																					
FY 2008 Equip -- Kits																					
FY 2009 Equip -- Kits																					
TC Equip- Kits																					
Total Installment		0.0	46	1.1	13	0.3	95	2.4		0.0		0.0		0.0		0.0		0.0	154	3.8	
Total Procurement Cost		0.0		9.4		0.3		2.5		0.0		0.0		0.0		0.0		0.0		12.2	

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Auxiliary Power Unit/Environmental Control Unit [MOD 11] 1-02-02-0552

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

DESCRIPTION/JUSTIFICATION:

An Auxiliary Power Unit (APU) /Environmental Control Unit (ECU) system has been requested by the user and is a direct result of the Manpower & Personnel Integration (MANPRINT) deficiencies identified at the M270A1 Initial Operational Test & Evaluation (IOTE). Significant electrical power distribution, storage, and management problems have occurred over the previous years between the launcher subsystem and carrier subsystem facilitating a need to provide auxiliary electrical power to the launcher vehicle. In addition, due to the cab of the M270/M270A1 Launcher being sealed during firing and potential launch operations there is a need to provide environmental control for crew comfort and efficiency. Digitization changes brought about by the Army's Transformation Campaign Plan (TCP) process have added additional electronic equipment that requires additional power and requires measures for reducing heat within the cab. The following two issues will be addressed within the APU/ECU: (1) An auxiliary electrical power source to charge vehicle batteries and increase weapon system effectiveness during silent waiting (2) cooling, air re-circulation and heating to the crew cab in order to meet human factors environmental requirements for crew comfort and efficiency.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The initial development effort took place in FY02, where a launcher was retrofitted and prototyped with a vendor's off-the-shelf product. This demonstration allowed the Precision Fires Rocket & Missile System (PFRMS) Project Management Office (PMO) to complete a proof of principle study. The development effort is currently being conducted jointly with Combat Systems PMO to leverage development of APUs from other artillery and combat systems within PEO Ground Combat Systems' area of responsibility. This development is due for completion in 1QFY05, with a subsequent procurement kit contract award in 2QFY05.

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs								11	11	11	12	11	11	11	8	29	29	30	30	12
Outputs													19		14		38	19	19	20

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Inputs	13																			229
Outputs	38	38	19	5																229

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 9 Months

Contract Dates: FY 2004 Jan 04 FY 2005 Jan 05 FY 2006 Jan 06

Delivery Date: FY 2004 Oct 04 FY 2005 Oct 05 FY 2006 Oct 06

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Auxiliary Power Unit/Environmental Control Unit [MOD 11] 1-02-02-0552

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity																				
Installation Kits					45	2.9	41	2.7	118	7.8	25	1.7							229	15.1
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2002 & Prior Equip -- Kits																				
FY 2003 -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits								33	0.4	18	0.2								51	0.6
FY 2006 Equip -- Kits										78	0.9	73	0.9						151	1.8
FY 2007 Equip -- Kits												27	0.3						27	0.3
FY 2008 Equip -- Kits																				
FY 2009 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0	33	0.4	96	1.1	100	1.2		0.0		0.0	229	2.7
Total Procurement Cost		0.0		0.0		2.9		2.7		8.2		2.8		1.2		0.0		0.0		17.8

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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

P-1 Item Nomenclature
HIMARS MODIFICATIONS: (NON AAO) (C67501)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

C67500

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost					0.5	0.5	8.0	11.7	16.1	8.3	321.9	367.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)					0.5	0.5	8.0	11.7	16.1	8.3	321.9	367.0
Initial Spares												
Total Proc Cost					0.5	0.5	8.0	11.7	16.1	8.3	321.9	367.0
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The High Mobility Artillery Rocket System (HIMARS), is a C-130 Transportable launcher mounted on a Family of Medium Tactical Vehicles (FMTV) chassis. HIMARS is capable of firing either 6 MLRS Family of Munitions(MFOM) rockets or 1 ATACMS Family of Munitions (AFOM) missile, including precision munitions, to a range of 300KM. Modification kits will be procured for the High Mobility Artillery Rocket System (HIMARS) Launcher and associated training and ground support equipment. These modifications are vital to the Current and Future Forces and are projected to decrease Operations & Support (O&S) costs, reduce logistical impacts and mitigate obsolescence. The HIMARS Modification program supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funds support the continuation of the HIMARS modification program.

Exhibit P-40M, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /3/Modification of missiles		P-1 Item Nomenclature HIMARS MODIFICATIONS: (NON AAO) (C67501)	
Program Elements for Code B Items:	Code:	Other Related Program Elements: C67500	

OSIP NO.	Classification	Fiscal Years									TC	Total
		2002 & PR	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009			
Joint Tactical Radio System (JTRS)												
1-00-03-0550		0.0	0.0	0.0	0.0	0.0	0.0	4.1	4.4	3.3	11.8	
Integrated Core Processor												
1-04-02-0562		0.0	0.0	0.0	0.0	3.1	4.3	4.3	1.0	0.0	12.7	
Machine Gun Mount												
1-03-02-0560		0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.5	
Carrier Upgrades												
1-03-02-0561		0.0	0.0	0.0	0.0	0.5	1.4	0.4	0.1	0.0	2.4	
Manifold												
1-04-02-0563		0.0	0.0	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.7	
Reliability/Obsolescence Mitigation												
1-03-02-0556		0.0	0.0	0.5	0.1	3.6	4.9	6.1	2.2	318.6	336.0	
Cordless Vehicular Intercommunication System (VIS)												
1-03-02-0557		0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.5	0.0	2.7	
Totals		0.0	0.0	0.5	0.4	8.0	11.8	16.0	8.2	321.9	366.8	

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /3/Modification of missiles	P-1 Item Nomenclature HELLFIRE Modifications (C71500)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog.
Proc Qty												
Gross Cost						9.8						9.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)						9.8						9.8
Initial Spares												
Total Proc Cost						9.8						9.8
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

Longbow HELLFIRE is a Current to Future force missile system that provides the Army with a fire-and-forget, anti-armor capability for the Apache Longbow (Stryker Force) and Comanche (Future Force) 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. Evolutionary improvements are required to maintain the current effectiveness of the Longbow HELLFIRE missile against expanding regional power threats. The Longbow HELLFIRE modifications will improve Home-on-Jam (HOJ)/Anti-Jam (AJ) capabilities for the missiles, and refit the rocket motor of the missile. The HOJ/AJ objective is to maintain the Longbow HELLFIRE Missile System’s low vulnerability and susceptibility to any battlefield jammer threats. The rocket motor refit will replace the current grain spacer with a “spider” spacer and remove a Safety of Use message restricting HELLFIRE missiles with Hercules motors to War Time Use Only. HOJ/AJ supports the Current to Future Force transition path of the Transformation Campaign Plan.

Justification:

FY 05 will procure HOJ/AJ retrofits and rocket motor refits.

Exhibit P-40M, Budget Item Justification Sheet

Date: February 2004

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:

Description		Fiscal Years									
OSIP NO.	Classification	2002 & PR	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	TC	Total
Home-on-Jam/Anti-Jam											
0-00-00-0000	Operational	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	3.6
Rocket Motor Refit											
0-00-00-0000	Operational	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	6.2
Totals		0.0	0.0	0.0	9.8	0.0	0.0	0.0	0.0	0.0	9.8

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Home-on-Jam/Anti-Jam [MOD 1] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: Longbow HELLFIRE

DESCRIPTION/JUSTIFICATION:

The Home-on-Jam (HOJ) and Anti-Jam (AJ) objectives are to successfully operate the Longbow missile in battlefield conditions where enemy jammers are located. National Ground Intelligence Center (NGIC) defined the enemy jammer characteristics and placed them in the Longbow Performance Base Specifications (PBS). These enemy jammers try to protect their tanks and other battlefield assets by jamming the Longbow seeker guidance, thus preventing a direct hit by the Longbow missile.

The HOJ/AJ Longbow missile will first try to track the target that was handed over by the Apache AH-64D. Although the enemy jammer attempts to jam the Longbow seeker guidance, the anti-jam part of this software provides significant improvement to Longbow guidance and "burns" through (rejects) the jamming signals. In the event the enemy jamming overcomes the ability of Longbow to anti-jam, then Longbow switches to a Home-on-Jam mode and guides toward the jamming source. In either case, the Longbow successfully defeats the original intended target or the jamming source.

This funding is to retrofit the entire inventory of Longbow HELLFIRE missiles with a new version of software. This new HOJ/AJ software contains 25 percent addition code over the current production baseline. No hardware modifications are necessary.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs										844	844	844	843									
Outputs										281	844	844	844	562								

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																					3375	
Outputs																						3375

METHOD OF IMPLEMENTATION:	ADMINISTRATIVE LEADTIME:	1 Months	PRODUCTION LEADTIME:	2 Months	
Contract Dates:	FY 2004	FY 2005	Dec 04	FY 2006	Dec 05
Delivery Date:	FY 2004	FY 2005	Feb 05	FY 2006	Feb 06

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Home-on-Jam/Anti-Jam [MOD 1] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2002 & Prior Equip -- Kits																				
FY 2003 -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits							3375	3.6											3375	3.6
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
FY 2008 Equip -- Kits																				
FY 2009 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0	3375	3.6		0.0		0.0		0.0		0.0		0.0	3375	3.6
Total Procurement Cost		0.0		0.0		0.0		3.6		0.0		0.0		0.0		0.0		0.0		3.6

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE: Rocket Motor Refit [MOD 2] 0-00-00-0000

MODELS OF SYSTEM AFFECTED:

DESCRIPTION/JUSTIFICATION:

During HELLFIRE live fire training in October 2000, Apache aircraft were damaged by missile motor debris. The "grain spacer" remains in the Hercules rocket motor are ejected at motor ignition and there is the potential for damage to the aircraft tail rotors/system. This resulted in a safety of use message restricting HELLFIRE missiles with Hercules motors to War Time Use Only. The rocket motor refit process will remove the foam rubber grain spacer and replace it with a modified "spider" spacer so that the missile will meet all performance requirements and will not eject grain spacer particles.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

Pr Yr	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs										354	354	354	351								
Outputs										118	354	354	354	233							

	FY 2008				FY 2009				FY 2010				FY 2011				To Complete	Totals	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Inputs																			1413
Outputs																			1413

METHOD OF IMPLEMENTATION:

Contract Dates:

FY 2004

ADMINISTRATIVE LEADTIME:

1 Months

PRODUCTION LEADTIME:

2 Months

Delivery Date:

FY 2004

FY 2005

FY 2006

INDIVIDUAL MODIFICATION

Date: February 2004

MODIFICATION TITLE (Cont): Rocket Motor Refit [MOD 2] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2002 and Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment							1413	6.2											1413	6.2
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2002 & Prior Equip -- Kits																				
FY 2003 -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
FY 2008 Equip -- Kits																				
FY 2009 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
Total Procurement Cost		0.0		0.0		0.0		6.2		0.0		0.0		0.0		0.0		0.0		6.2

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /4/Spares and repair parts	P-1 Item Nomenclature SPARES AND REPAIR PARTS (CA0250)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost	347.3	18.9	13.3	55.6	50.2	33.8	30.5	19.5	24.8	21.2	268.3	883.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	347.3	18.9	13.3	55.6	50.2	33.8	30.5	19.5	24.8	21.2	268.3	883.3
Initial Spares												
Total Proc Cost	347.3	18.9	13.3	55.6	50.2	33.8	30.5	19.5	24.8	21.2	268.3	883.3
Flyaway U/C												
Wpn Sys 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 05 funds will procure Javelin, MLRS, Patriot Mods and MLRS Mods, HIMARS and HIMARS Mods initial spares.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

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 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost	368.4	2.4	3.3	3.3	3.4	5.8	3.7	3.8	3.8	3.9		401.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	368.4	2.4	3.3	3.3	3.4	5.8	3.7	3.8	3.8	3.9		401.9
Initial Spares	1.3											1.3
Total Proc Cost	369.7	2.4	3.3	3.3	3.4	5.8	3.7	3.8	3.8	3.9		403.2
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The Air Defense Targets program provides target vehicles, scoring ancillary equipment, and ground support equipment for worldwide active Army and Reserve Component air defense training. This training consists of Standards In Training Commission (STRAC) required gun system live fire and Precision Gunnery System (PGS) training and scoring. These systems support the Current to Future transition path of the Transformation Campaign Plan (TCP).

Justification:

FY05 funds the Air Defense Artillery Target System and ancillary hardware consisting of scoring devices and ground support equipment in support of gun, aerial tracking, and Precision Gunnery System (PGS) training as well as targets for Missile Live Fire training. Missile Live Fire targets are not funded in other years. These targets support the U.S. Army Avenger, Bradley Stinger Fighting Vehicle (BSFV) and Linebacker systems worldwide. Training requirements are generated by Department of Army Major Field Commands, Training Centers, and Division Level Commands. These field requirements have been reviewed against force restructuring plans and Transformation plans and are consistent with the approved training doctrine. These targets are necessary to meet training strategy and standards and are essential to qualify soldiers in support of readiness.

Exhibit P-5, Weapon MSLS Cost Analysis		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 2004			
MSLS Cost Elements		ID CD				FY 03			FY 04			FY 05		
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
HARDWARE														
1/5 Scale RPVT		A			984	319	3.084							
Remotely Piloted Vehicle Target (RPVT)		A			910	214	4.252	1676	394	4.254	2437	554	4.399	
Scoring Hardware (Conversion Kits)		A						88	138	0.638				
Scoring Hardware (Microdops Sensors)		A									546	100	5.460	
Scoring Hardware (Ground Station)		A						285	4	71.250				
Ballistic Aerial Targets (BAT)		A									1246	356	3.500	
Rocket Motors (3 per BAT)		A									183	1068	0.171	
TOTAL HARDWARE COSTS					1894			2049			4412			
SUPPORT COSTS														
Program Management Costs					1125			1047			1079			
Logistics Support Costs					330			342			352			
TOTAL SUPPORT COSTS					1455			1389			1431			
Total					3349			3438			5843			

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2004

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 \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Remotely Piloted Vehicle Target (RPVT)										
FY 2003	Griffon Aerospace Huntsville, AL	C/FP/Cost	AMCOM	Aug 03	May 04	214	4	YES		
FY 2004		Option	AMCOM	Mar 04	May 04	394	4	YES		
FY 2005		Option	AMCOM	Nov 04	Dec 04	554	4	YES		
Scoring Hardware (Conversion Kits)										
FY 2004	Meggitt Defense Systems Fullerton, CA	SS/FP/Cost	AMCOM	Mar 04	Nov 04	138	1	YES		
Scoring Hardware (Microdops Sensors)										
FY 2005	Meggitt Defense Systems Fullerton, CA	SS/FP/Cost	AMCOM	Jan 05	Aug 05	100	5	YES		
Scoring Hardware (Ground Station)										
FY 2004	Meggitt Defense Systems Fullerton, CA	SS/FP/Cost	AMCOM	Mar 04	Nov 04	4	71	YES		
Ballistic Aerial Targets (BAT)										
FY 2005	TBD TBD	C/FP	AMCOM	TBD	TBD	356	4	YES		
Rocket Motors (3 per BAT)										
FY 2005	Rock Island Arsenal Rock Island, IL	MIPR/FP	Rock Island, IL	TBD	TBD	1068	0	YES		

REMARKS: Sole Source Justification: Meggitt Defense Systems was the only source that possessed the knowledge and expertise required in order to provide the services and hardware necessary to perform the full range of tasks needed to support U.S. Army target scoring missions.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

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 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost	38.7	1.0	1.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0		41.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	38.7	1.0	1.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0		41.7
Initial Spares												
Total Proc Cost	38.7	1.0	1.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0		41.7
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

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

Justification:

FY05 funding will procure tools and shop sets to support the MRLS system.

Exhibit P-5, Weapon MSLS Cost Analysis		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 2004			
MSLS Cost Elements		ID CD				FY 03			FY 04			FY 05		
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
MLRS														
Components					429			6			6			
Assembly					257			4			4			
TOW														
Components					21									
Assembly					11									
AVENGER														
Components					109									
Assembly					64									
NOTE: All are missile tool kits no mods. Each system has more than one kit with varying quantities and unit costs for each kit.														
Total					891			10			10			

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /5/Support equipment and facilities
 P-1 Item Nomenclature: MISSILE DEMILITARIZATION (HL2000)

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

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost	7.8	1.3	2.3	4.8								16.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	7.8	1.3	2.3	4.8								16.3
Initial Spares												
Total Proc Cost	7.8	1.3	2.3	4.8								16.3
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

Missile Demilitarization Program demilitarizes Army missile and missile components that are unserviceable, obsolete or excess to Army requirements.

Justification:

FY03 funding procures 1) demilitarization of Army tactical missiles (SHILLELAGH, HAWK, STINGER, DRAGON, and PATRIOT) and missile components using Open Burning and Open Detonation (OB/OD) techniques, 2) demilitarization of basic TOW missiles by mechanical resource recovery and recycling (R3) techniques, 3) LRIP demilitarization of improved TOW missiles to include energetics recycling, and 4) the conduct and analysis of a production scale Risk Reduction Program for MLRS Demilitarization using R3 technologies. The missile and missile component demilitarization stockpile is increasing due to 1) inventory ageing, 2) Army modernization efforts, and 3) serviceability issues caused by increased deployments. The stockpile today is over 60,000 missiles and missile components that will grow to over 600,000 by FY14. Currently, the Army uses the destructive method of OB/OD to demilitarize tactical missiles. However, pursuant to Executive Order 13101, "Greening of the Government," an aggressive R3 integrated program has been established by AMCOM which requires environmentally safe and cost effective alternatives to the OB/OD processes.

During the FY04 Budget Cycle, funding for the Missile Demilitarization Program was transferred from the Missile Procurement, Army Appropriation to the Procurement Ammunition, Army Appropriation in order to consolidate the effort for all conventional munitions demilitarization.

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 5 / Support equipment and facilities			P-1 Line Item Nomenclature: MISSILE DEMILITARIZATION (HL2000)			Weapon System Type:			Date: February 2004			
MSLS Cost Elements		ID CD				FY 03			FY 04			FY 05		
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Shillelagh					896	7539	0							
TOW R3 (MRC Support)														
TOW R3					3172	5075	1							
R 3 Acq.Study					100									
Hawk Motors					696	1000	1							
MLRS														
Stinger					97	428	0							
Patriot					50	110	0							
Dragon														
SS-11														
Total					4811									

Exhibit P-40, Budget Item Justification Sheet

Date: February 2004

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 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost	303.9	3.1	3.3	3.3	3.4	3.5	3.7	3.8	3.9	4.0		335.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	303.9	3.1	3.3	3.3	3.4	3.5	3.7	3.8	3.9	4.0		335.9
Initial Spares												
Total Proc Cost	303.9	3.1	3.3	3.3	3.4	3.5	3.7	3.8	3.9	4.0		335.9
Flyaway U/C												
Wpn Sys 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 2005 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.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2004

Appropriation/Budget Activity/Serial No:

Missile Procurement, Army /5/Support equipment and facilities

P-1 Item Nomenclature

PIF FOR OTHER (CA4002)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog.
Proc Qty												
Gross Cost	303.9	3.1	3.3	3.3	3.4	3.5	3.7	3.8	3.9	4.0		335.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	303.9	3.1	3.3	3.3	3.4	3.5	3.7	3.8	3.9	4.0		335.9
Initial Spares												
Total Proc Cost	303.9	3.1	3.3	3.3	3.4	3.5	3.7	3.8	3.9	4.0		335.9
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

Army Test and Evaluation Command (ATEC): This program provides funding to the ATEC, Developmental Test Command (DTC) to establish, modernize, expand or replace Army-owned industrial 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 generally provides increased automation and efficiencies, improved data quality and quantity and cost avoidances to Army Program Managers. At DTC, funding is required to upgrade or replace production test instrumentation and equipment at Redstone Technical Test Center (RTTC), Huntsville, AL and White Sands Missile Range (WSMR), NM.

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

Justification:

ATEC: FY05 procures: At RTTC, a distributed remotely programmable signal conditioning system for collecting data during shock and vibration testing of small missile programs; and upgraded robotics and remote control equipment used during rocket motor dissection for mechanical and chemical analysis in support of service life determination, risk mitigation programs, and motor failure analysis. At WSMR, remotely controlled instrumentation and site monitoring equipment used in hazardous test areas during missile warhead testing; remote missile assembly/disassembly equipment for evaluating missile components for failure and/or modification and for explosive ordnance location and retrieval; replacement sensors, telemetry equipment, time, space and position instrumentation, radio frequency measurement instruments and data processing equipment used in measuring specific test parameters such as temperature, pressure, noise, and vibration during pre-launch missile monitoring; upgraded environmental conditioning equipment and test chambers used to simulate extreme temperature, humidity, altitude and Microbiological (Fungus) environments; replacement refrigeration systems in fixed and mobile environment conditioning equipment to eliminate ozone depleting chemicals, laboratory equipment to conduct chemical analysis of wastes; metallurgy lab equipment; and missile flight termination receiver laboratory test equipment used to test and certify flight safety equipment. 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.

Exhibit P-40C, Budget Item Justification Sheet

Date:

February 2004

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

P-1 Item Nomenclature

PIF FOR OTHER (CA4002)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

Iowa AAP: In order to support the production of precision shaped charge warheads to specified tolerances, this FY 2005 project will provide for procurement of a second Warhead Development Lathe; procure and install two Warhead Development Chambers; procure a Chemical Laboratory Analysis System; extend new power and lighting circuits from the secondary panel in Building 4B-22; provide for the preserving, storing, and disposing of facilities and equipment that are no longer required to support current production or replenishment; and provide for required inspection and maintenance of the Javelin and Tube-Launched, Optically-Tracked, Wire-Guided (TOW) Missile production facilities/equipment in layaway.

These programs support all transition paths of the Army Transformation from the Current to the Future Force of the Transformation Campaign Plan (TCP).