

DEPARTMENT OF THE ARMY

Procurement Programs



Committee Staff Procurement Backup Book
FY 2003 Budget Submission

MISSILE PROCUREMENT, ARMY

APPROPRIATION

February 2002

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, \$1,642,296,000, to remain available for obligation until September 30, 2005.

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APPROPRIATION SUMMARY
APPROPRIATION

Missile Procurement, Army
TOTAL PROCUREMENT PROGRAM

DOLLARS IN THOUSANDS		
<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>
1,308,564	1,071,828	1,642,296
<u>1,308,564</u>	<u>1,071,828</u>	<u>1,642,296</u>

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APPROPRIATION Missile Procurement, Army		DOLLARS IN THOUSANDS			
ACTIVITY	FY 2001	FY 2002	FY 2003	PAGE	
02 Other missiles	1,143,750	929,684	1,329,294	4	
03 Modification of missiles	136,443	116,923	244,495	6	
04 Spares and repair parts	20,595	15,192	55,924	7	
05 Support equipment and facilities	7,776	10,029	12,583	8	
APPROPRIATION TOTALS	1,308,564	1,071,828	1,642,296		

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APPROPRIATION Missile Procurement, Army			ACTIVITY 02 Other missiles			DOLLARS IN THOUSANDS					
LINE NO	ITEM NOMENCLATURE	ID	FY 2001		FY 2002		FY 2003				
			QTY	COST	QTY	COST	QTY	COST			
<i>SURFACE-TO-AIR MISSILE SYSTEM</i>											
1	PATRIOT SYSTEM SUMMARY (C49100)	A					72	471670			
2	STINGER SYSTEM SUMMARY (C18500)	A			346	34151	160	30893			
3	AVENGER SYSTEM SUMMARY (C14900)		6	29527		11543					
	<i>SUB-ACTIVITY TOTAL</i>			<u>29,527</u>		<u>45,694</u>		<u>502,563</u>			
<i>AIR-TO-SURFACE MISSILE SYSTEM</i>											
4	HELLFIRE SYS SUMMARY (C70000) Less: Advance Procurement (PY)	A	2,200	(294344) (-11599) <u>282,745</u>	2,200	(251730) (-11599) <u>240,131</u>	1,797	(193875) (-9479) <u>184,396</u>			
	<i>SUB-ACTIVITY TOTAL</i>			<u>282,745</u>		<u>240,131</u>		<u>184,396</u>			
<i>ANTI-TANK/ASSAULT MISSILE SYSTEM</i>											
5	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007) Less: Advance Procurement (PY)		2,776	(332179) (-13879) <u>318,300</u>	4,139	(428921) (-17171) <u>411,750</u>	1,725	(259456) (-8950) <u>250,506</u>			
6	LINE OF SIGHT ANTI-TANK (LOSAT) SYSTEM SUM (H09000) Less: Advance Procurement (PY)						144	(27298) (-9361) <u>17,937</u>			
7	LINE OF SIGHT ANTI-TANK (LOSAT) SYSTEM SUM (H09000) Advance Procurement (CY)						9361				
8	MLRS ROCKET (C65400)			5727							
9	GUIDED MLRS ROCKET (GMLRS) (C65404)						108	29698			
10	MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)						5,646	15924			
11	MLRS LAUNCHER SYSTEMS (C66400)		66	196948	35	137085	35	141131			

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APPROPRIATION Missile Procurement, Army

ACTIVITY 02 Other missiles

LINE NO	ITEM NOMENCLATURE	ID	DOLLARS IN THOUSANDS							
			FY 2001		FY 2002		FY 2003			
			QTY	COST	QTY	COST	QTY	COST		
12	HIMARS LAUNCHER (C03000)						34	128402		
13	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)	B	100	95144	12	25087				9050
14	ATACMS BLKII SYSTEM SUMMARY (CA6101)	A	34	215359	6	60576				49687
	<i>SUB-ACTIVITY TOTAL</i>			<u>831,478</u>		<u>643,859</u>				<u>642,335</u>
	ACTIVITY TOTAL			<u>1,143,750</u>		<u>929,684</u>				<u>1,329,294</u>

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APPROPRIATION Missile Procurement, Army

ACTIVITY 03 Modification of missiles

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2001		FY 2002		FY 2003	
			QTY	COST	QTY	COST	QTY	COST
<i>MODIFICATIONS</i>								
15	PATRIOT MODS (C50700)			22718		24942		151307
16	STINGER MODS (C20000)			33033		5790		1492
17	AVENGER MODS (CE8710)			6766		11908		
18	ITAS/TOW MODS (C61700)			63969		60778		59962
19	MLRS MODS (C67500)			9957		13505		31734
	<i>SUB-ACTIVITY TOTAL</i>			<u>136,443</u>		<u>116,923</u>		<u>244,495</u>
	ACTIVITY TOTAL			136,443		116,923		244,495

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APPROPRIATION Missile Procurement, Army

ACTIVITY 04 Spares and repair parts

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2001		FY 2002		FY 2003	
			QTY	COST	QTY	COST	QTY	COST
<i>SPARES AND REPAIR PARTS</i>								
20	SPARES AND REPAIR PARTS (CA0250)			20595		15192		55924
	<i>SUB-ACTIVITY TOTAL</i>			<u>20,595</u>		<u>15,192</u>		<u>55,924</u>
	ACTIVITY TOTAL			20,595		15,192		55,924

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APPROPRIATION Missile Procurement, Army ACTIVITY 05 Support equipment and facilities

LINE NO	ITEM NOMENCLATURE	ID	DOLLARS IN THOUSANDS					
			FY 2001		FY 2002		FY 2003	
			QTY	COST	QTY	COST	QTY	COST
	<i>SUPPORT EQUIPMENT AND FACILITIES</i>							
21	AIR DEFENSE TARGETS (C93000)			2372		3302		3408
22	ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)			961		1032		907
23	MISSILE DEMILITARIZATION (HL2000)			1329		2342		4895
24	PRODUCTION BASE SUPPORT (CA0100)			3114		3353		3373
	<i>SUB-ACTIVITY TOTAL</i>			<u>7,776</u>		<u>10,029</u>		<u>12,583</u>
	ACTIVITY TOTAL			<u>7,776</u>		<u>10,029</u>		<u>12,583</u>
	APPROPRIATION TOTAL			<u>1,308,564</u>		<u>1,071,828</u>		<u>1,642,296</u>

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SSN	LINE	PAGE	NOMENCLATURE
C93000	19	8	AIR DEFENSE TARGETS (C93000)
C98510	10	4	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)
CA6101	11	4	ATACMS BLKII SYSTEM SUMMARY (CA6101)
C65404	6	4	GUIDED MLRS ROCKET (GMLRS) (C65404)
C70000	3	4	HELLFIRE SYS SUMMARY (C70000)
C03000	9	4	HIMARS LAUNCHER (C03000)
C67501	16	6	HIMARS MODIFICATIONS: (NON AAO) (C67501)
CA0289	18	7	HIMARS MODIFICATIONS: INITIAL SPARES (CA0289)
C61700	14	6	ITAS/TOW MODS (C61700)
CL2000	20	8	ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)
CC0007	4	4	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)
C70000	3	4	Less: Advance Procurement (PY)
CC0007	4	4	Less: Advance Procurement (PY)
H09000	5	4	Less: Advance Procurement (PY)
H09000	5	4	LINE OF SIGHT ANTI-TANK (LOSAT) SYSTEM SUM (H09000)
HL2000	21	8	MISSILE DEMILITARIZATION (HL2000)
C66400	8	4	MLRS LAUNCHER SYSTEMS (C66400)
C67500	15	6	MLRS MODS (C67500)
C65405	7	4	MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)
C50700	12	6	PATRIOT MODS (C50700)
C49100	1	4	PATRIOT SYSTEM SUMMARY (C49100)
CA0100	22	8	PRODUCTION BASE SUPPORT (CA0100)
CA0250	17	7	SPARES AND REPAIR PARTS (CA0250)
C20000	13	6	STINGER MODS (C20000)
C18500	2	4	STINGER SYSTEM SUMMARY (C18500)

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SSN	LINE	PAGE	NOMENCLATURE
C03000	9	4	HIMARS LAUNCHER (C03000)
C18500	2	4	STINGER SYSTEM SUMMARY (C18500)
C20000	13	6	STINGER MODS (C20000)
C49100	1	4	PATRIOT SYSTEM SUMMARY (C49100)
C50700	12	6	PATRIOT MODS (C50700)
C61700	14	6	ITAS/TOW MODS (C61700)
C65404	6	4	GUIDED MLRS ROCKET (GMLRS) (C65404)
C65405	7	4	MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)
C66400	8	4	MLRS LAUNCHER SYSTEMS (C66400)
C67500	15	6	MLRS MODS (C67500)
C67501	16	6	HIMARS MODIFICATIONS: (NON AAO) (C67501)
C70000	3	4	HELLFIRE SYS SUMMARY (C70000)
C70000	3	4	Less: Advance Procurement (PY)
C93000	19	8	AIR DEFENSE TARGETS (C93000)
C98510	10	4	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)
CA0100	22	8	PRODUCTION BASE SUPPORT (CA0100)
CA0250	17	7	SPARES AND REPAIR PARTS (CA0250)
CA0289	18	7	HIMARS MODIFICATIONS: INITIAL SPARES (CA0289)
CA6101	11	4	ATACMS BLKII SYSTEM SUMMARY (CA6101)
CC0007	4	4	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)
CC0007	4	4	Less: Advance Procurement (PY)
CL2000	20	8	ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)
H09000	5	4	LINE OF SIGHT ANTI-TANK (LOSAT) SYSTEM SUM (H09000)
H09000	5	4	Less: Advance Procurement (PY)
HL2000	21	8	MISSILE DEMILITARIZATION (HL2000)

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Exhibit P-1M, Procurement Programs - Modification Summary

<u>System/Modification</u>	<u>2000 & Prior</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>To Complete</u>	<u>Total Program</u>
PATRIOT MODS (C50700)										
RLCEU	26.1	12.6	14.7	22.5	43.2	7.7				126.9
Block VIII	17.3	5.4	4.2	3.0	3.6					33.5
Integrated Diagnostic Support System	10.8	2.1								12.9
BCP (Link 16/JTIDS)	2.6	2.6	6.0	8.0	21.8	15.5				56.5
Tactical Command System	2.5									2.5
RAM MODS				9.9	29.2	21.3	23.9	41.5	340.1	465.8
Radar Phase III				43.7	65.6					109.3
CDI Phase III				17.0	25.5					42.5
TCS (TIBS/IBS, FO, C4I, NMNG)				20.1	8.7	11.3	9.1	9.8		59.0
Recapitalization				27.1	37.0	34.3	46.5	30.3		175.3
Total	59.3	22.7	24.9	151.3	234.6	90.2	79.5	81.6	340.1	1084.1
STINGER BLK I UPGRADES (C21300)										
Stinger Block I Platform Upgrades (C21300)	11.5	1.3	1.4	1.5	1.0					16.7
Stinger Block I Missile Upgrades (C21300)	111.7	27.2								138.9
Stinger Troop Proficiency Trainer		1.1	2.0							3.1
Linebacker Training Devices		3.4	2.4							5.8
Total	123.2	33.0	5.7	1.5	1.0					164.4
AVENGER MODS (CE8710)										
Slew-To-Cue (STC)	19.7	6.8	4.8							31.3
Environmental Control Unit/Prime Power Unit	19.4		7.1							26.5
Total	39.2	6.8	11.9							57.8
ITAS/TOW MODS (C61700)										
Missile Conversion (HEAT TO PRACTICE)	37.2			5.2	5.6	2.4	2.4	2.4	55.8	111.0
MISSILE MODIFICATION (MOIC)	14.0			0.3	0.7	0.7	0.7	0.7	7.0	

Missile Procurement, Army Exhibit P-1M, Procurement Programs - Modification Summary

<u>System/Modification</u>	<u>2000 & Prior</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>To Complete</u>	<u>Total Program</u>
ITAS (IMPROVED TARGET ACQUISITION SYSTEM)	226.9	63.9	60.8	54.5	38.4	28.8	29.3	29.4	741.7	1273.7
CAPS (COUNTER ACTIVE PROTECTION SYSTEM)	6.8									6.8
Total	284.9	63.9	60.8	60.0	44.7	31.9	32.4	32.5	804.5	1391.5
MLRS MODS (C67500)										
Inactive Mods	186.3	1.9								187.7
Transmission Electronic Controller (TEC)	34.7	0.5		0.2		0.3				35.7
Interim Improved Position Determining System Lchr	22.0	0.5	1.4	1.4	1.4					26.7
Selective Availability Anti-Spoofing Module				10.0	0.6	4.9			27.3	45.2
Rocket Pod Hold Down and Jury Strut Inhibit Switch				3.1	0.8	0.2				4.0
Joint Technical Architecture-Army (JTA-A)			10.8	2.8	3.1	2.1				19.4
Engine/Transmission Diagnostic					2.6	4.9				
Weapons Interface Unit Modification				11.1	15.7	5.3				32.3
Joint Tactical Radio System (JTRS)					0.3	0.8	0.8	0.9	1.4	
Obsolescence Mitigation/ECP Reliability Intg	3.0	7.0	1.3	3.1	2.2	1.8	1.9	1.7	18.6	40.6
Streamlined Technology Enhancement Prog (STEP)							8.3	7.5	95.6	111.4
Total	246.0	10.0	13.5	31.7	26.8	20.2	15.0	10.1	142.9	503.2
Grand Total	752.5	136.4	116.9	244.5	307.1	142.2	126.9	124.2	1287.5	3201.1

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	6575					72	72	131	144	144		7138
Gross Cost	9766.1					471.7	450.5	501.1	503.0	502.0		12194.3
Less PY Adv Proc	123.3					0.0	0.0	0.0	0.0	0.0		123.3
Plus CY Adv Proc	123.3					0.0	0.0	0.0	0.0	0.0		123.3
Net Proc (P-1)	9766.1					471.7	450.5	501.1	503.0	502.0		12194.3
Initial Spares	344.3											344.3
Total Proc Cost	10110.3					471.7	450.5	501.1	503.0	502.0		12538.6
Flyaway U/C												
Wpn Sys Proc U/C						6.6	6.3	3.8	3.5	3.5		

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. Deployment is to the field Army and 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. Funds will ensure PAC-3 will remain interoperable in the BMDS. The PAC-3 program transferred from the Army back to BMDO in FY02 per Congressional direction. The Army requirement for PAC-3 supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

Justification:

JUSTIFICATION: FY03 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.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2002

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:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	6475					72	72	131	144	144		7038
Gross Cost	5064.5					471.7	450.5	501.1	503.0	502.0		7492.7
Less PY Adv Proc	123.3					0.0	0.0	0.0	0.0	0.0		123.3
Plus CY Adv Proc	123.3					0.0	0.0	0.0	0.0	0.0		123.3
Net Proc (P-1)	5064.5					471.7	450.5	501.1	503.0	502.0		7492.7
Initial Spares												
Total Proc Cost	5064.5					471.7	450.5	501.1	503.0	502.0		7492.7
Flyaway U/C												
Wpn Sys Proc U/C						6.6	6.3	3.8	3.5	3.5		

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. Deployment is to the field Army and 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. Funds will ensure PAC-3 will remain interoperable in the BMDS. The PAC-3 program transferred from the Army back to BMDO in FY02 per Congressional direction. The Army requirement for PAC-3 supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

Justification:

JUSTIFICATION: FY03 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 prior year funding and quantities shown above reflect pre-PAC-3 configuration.

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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											278877	72	3873.3
Field Surveillance											9213		
Obsolescence											9698		
SUBTOTAL											297788		
Non-Recurring Costs													
Initial Production Facilitization											40000		
SUBTOTAL											40000		
Ground Support Equipment													
Radar Phase III													
CDI Phase III													
RLCEU													
Command Launch System											24915		
MIDS											2420		
Initial Spares													
SUBTOTAL											27335		
Support Cost													
Contractor Engineering											35848		
Government/Software Engineering											26675		
Sys Engrg/Proj Mgmt (SEPM)											20150		
Integrated Logistics Support											14074		
Depot Maint Plant Equipment (DMPE)											1500		
Fielding											8300		
SUBTOTAL											106547		
Total											471670		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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 BMDO	LMMFC Dallas, TX	SS/CPIF	AMCOM	Dec 99	Sep 01	20	5124	NA		Jun 97
FY 2000 LRIP1 BMDO	LMMFC Dallas, TX	SS/CPIF	AMCOM	May 00	May 02	32	5141	NA		Nov 99
FY 2001 LRIP2 BMDO	LMMFC Dallas, TX	SS/CPIF	AMCOM	Dec 00	Jan 03	40	4535	NA		Aug 00
FY 2002 LRIP3 BMDO	LMMFC Dallas, TX	SS/FPIS	AMCOM	Jan 02	Jan 04	72	4482	NA		Oct 01
FY 2003 FRP-1 ARMY	LMMFC Dallas, TX	SS/FPIS	AMCOM	Dec 02	Jan 05	72	3873	NA		
FY 2004 FRP-2 ARMY	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 03	Jan 06	72	3536	NA		
FY 2005 FRP-3 ARMY	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 04	Jan 07	131	2492	NA		
FY 2006 FRP-4 ARMY	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 05	Jan 08	144	2323	NA		
FY 2007 FRP-5 ARMY	LMMFC Dallas, TX	SS/FFP	AMCOM	Dec 06	Jan 09	144	2301	NA		

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty					346	160	175	267	156	175		1279
Gross Cost	1143.3				34.2	30.9	35.9	38.9	28.6	31.1		1342.9
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)	1143.3				34.2	30.9	35.9	38.9	28.6	31.1		1342.9
Initial Spares	1.6											1.6
Total Proc Cost	1144.9				34.2	30.9	35.9	38.9	28.6	31.1		1344.5
Flyaway U/C												
Wpn Sys Proc U/C					0.1	0.2	0.2	0.1	0.2	0.2		

Description:

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. The system supports the Legacy transition path of the Transformation Campaign Plan.

Justification:

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 eliminates the need for super-elevation in aviation platforms. The FY03 program will continue new missile procurement and address obsolescence issues with Stinger Block I missiles. New missile production will ensure that Stinger combat stocks are available to support the Army's Air and Missile Defense strategy until 2021.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2002

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:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty					346	160	175	267	156	175		1279
Gross Cost	775.0				34.2	30.9	35.9	38.9	28.6	31.1		974.6
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)	775.0				34.2	30.9	35.9	38.9	28.6	31.1		974.6
Initial Spares	0.8											0.8
Total Proc Cost	775.8				34.2	30.9	35.9	38.9	28.6	31.1		975.4
Flyaway U/C												
Wpn Sys Proc U/C					0.1	0.2	0.2	0.1	0.2	0.2		

Description:

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. The system supports the Legacy transition path of the Transformation Campaign Plan.

Justification:

The FY03 program will continue new missile procurement and address obsolescence issues with Stinger Block I missiles. New missile production will ensure that Stinger combat stocks are available to support the Army's Air and Missile Defense strategy until 2021. 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 eliminates the need for super-elevation in aviation platforms.

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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							30046	346	86.838		15059	160	94.119
Subtotal Hardware Cost							30046				15059		
Containers							59				28		
Battery Coolant Unit											5104		
Flyaway Cost							30105				20191		
SUPPORT COST													
Government Engineering							2000				2041		
Contractor Engineering							1546				3472		
ECP							500				5189		
Subtotal Support Cost							4046				10702		
Total							34151				30893		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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										
FY 2002	Raytheon Systems Company Tucson, AZ	SS/FP(Opt)	AMCOM	Feb-02	Oct 03	346	86.838	yes		
FY 2003	Raytheon Systems Company Tucson, AZ	SS/FP(Opt)	AMCOM	Feb-03	Oct 04	160	94.119	yes		

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

Appropriation/Budget Activity/Serial No: P-1 Item Nomenclature
 Missile Procurement, Army /2/Other missiles AVENGER SYSTEM SUMMARY (C14900)

Program Elements for Code B Items: Code: Other Related Program Elements:
C15200, C16000, CE8710, CA0260

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	866	15	15	6								902
Gross Cost	997.4	34.2	33.9	29.6	11.5							1106.6
Less PY Adv Proc	122.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		122.9
Plus CY Adv Proc	122.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		122.9
Net Proc (P-1)	997.4	34.2	33.9	29.6	11.5							1106.6
Initial Spares	60.9			2.8								63.7
Total Proc Cost	1058.3	34.2	33.9	32.4	11.5							1170.4
Flyaway U/C												
Wpn Sys Proc U/C		2.3	2.3	4.9								

Description:

AVENGER System is a highly mobile, Stinger-based, Short Range Air Defense system capable of day, night, adverse weather and shoot on-the-move for precision engagement operations. It provides Division and Corps units with low altitude air defense/information dominance against fixed and rotary wing threats, unmanned aerial vehicles and cruise missiles. Mounted on a High Mobility Multipurpose Wheeled Vehicle (HMMWV) and manned by a crew of two, the turreted system is equipped with 8 Stinger missiles and a very high rate of fire .50 cal machine gun. A Forward Looking Infrared (FLIR) sensor provides Avenger with a night fighting capability. Production fire units are now equipped with a Slew-to-Cue capability that permits the system to automatically slew to externally reported radar tracks. By placing targets directly into the gunner's sight, lengthy manual searching is eliminated and detections and engagements are increased. Avenger can be remotely controlled and operated from the safety of a nearby foxhole/building/position. Capability is provided via an eye-safe laser range finder and a Mark XII crypto-secure Identification Friend or Foe (IFF) device. Because of its FLIR, video recording capability, and machine gun, the system is routinely employed in Bosnia and Kosovo for nighttime roadblock security, crowd surveillance, and reconnaissance. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Justification:

FY02 funding will support the Total Package Fielding of the Active Avenger fleet.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

Appropriation/Budget Activity/Serial No: P-1 Item Nomenclature
 Missile Procurement, Army /2/Other missiles AVENGER (PED MT STINGER) (MYP) (C16000)

Program Elements for Code B Items: Code: Other Related Program Elements:
C15200, C14900, CE8710, CA0260

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	866	15	15	6								902
Gross Cost	954.5	34.2	33.9	29.6	11.5							1063.7
Less PY Adv Proc	122.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		122.9
Plus CY Adv Proc	122.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		122.9
Net Proc (P-1)	954.5	34.2	33.9	29.6	11.5							1063.7
Initial Spares	60.9			2.8								63.7
Total Proc Cost	1015.4	34.2	33.9	32.4	11.5							1127.4
Flyaway U/C												
Wpn Sys Proc U/C		2.3	2.3	4.9								

Description:

The AVENGER is a highly mobile, Stinger missile based, Short Range Air Defense system, capable of day, night, adverse weather and shoot on-the-move for precision engagement operations. The AVENGER system is mounted on a High Mobility, Multipurpose Wheeled Vehicle (HMMWV), and manned by a crew of two, the turreted system is equipped with 8 Stinger missiles and a very high rate of fire .50 cal machine gun. A Forward Looking Infrared (FLIR) sensor provides Avenger with a night fighting capability. Production fire units are now equipped with a Slew-to-Cue capability that permits the system to automatically slew to externally reported radar tracks. By placing targets directly into the gunner's sight, lengthy manual searching is eliminated and detections and engagements are increased. Avenger can be remotely controlled and operated from the safety of a nearby foxhole/building/position. Capability is provided via an eye-safe laser range finder and a Mark XII crypto-secure Identification Friend or Foe (IFF) device. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Justification:

FY02 funding will support the Total Package Fielding of the Active Avenger fleet.

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: AVENGER (PED MT STINGER) (MYP) (C16000)			Weapon System Type:			Date: February 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000		\$000	\$000	Each	\$000	\$000	Each	\$000
Avenger (PED Mt STINGER) (MYP) Hardware - Recurring Avenger Fire Unit					6816	6	1136						
Subtotal Hardware Production					6816								
HMMWV					344								
STC/CFCC/AVT					740								
Govt Furnished Material (GFM)					1000								
Driveaway					8900								
Support Cost													
Government Engineering					4024			3198					
Contractor Engineering					3979			2755					
Total Package Fielding					1038			1524					
Support Equipment					6281			1570					
Training Equipment					5305			2496					
Subtotal Support Cost					20627			11543					
Initial Spares					2830								
Total					32357			11543					

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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

Weapon System Type:

P-1 Line Item Nomenclature:
AVENGER (PED MT STINGER) (MYP) (C16000)

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
Avenger Fire Unit										
FY 2000	Boeing Huntsville, AL	SS/FP	AMCOM	Dec 99	Sep 01	15	1091	yes		
FY 2001	Boeing Huntsville, AL	SS/FP	AMCOM	Nov 00	Aug 02	6	1136	yes		

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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

P-1 Item Nomenclature
HELLFIRE SYS SUMMARY (C70000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	51648	2000	2200	2200	2200	1797			1950	3050	80190	147235
Gross Cost	2787.3	309.6	306.2	294.3	251.7	193.9	38.7	45.2	121.6	95.6	746.2	5190.4
Less PY Adv Proc	0.0	0.0	11.6	11.6	11.6	9.5	0.0	0.0	0.0	0.0		44.3
Plus CY Adv Proc	0.0	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		44.3
Net Proc (P-1)	2787.3	353.9	294.6	282.7	240.1	184.4	38.7	45.2	121.6	95.6	746.2	5190.4
Initial Spares	7.5											7.5
Total Proc Cost	2794.8	353.9	294.6	282.7	240.1	184.4	38.7	45.2	121.6	95.6	746.2	5197.9
Flyaway U/C												
Wpn Sys Proc U/C		177.0	133.9	128.5	109.2	102.6			62.4	31.4	9.3	

Description:

HELLFIRE is an Objective Force missile system that provides heavy armor, precision-kill capability to the Apache (Legacy Force) and Comanche (Objective Force). Its precision-kill capability provides increased lethality against multiple types of targets. HELLFIRE is an air-to-ground missile system designed to defeat individual hardpoint targets. The missile configuration has the capability for modular guidance section replacements. Laser HELLFIRE uses semi-active laser terminal guidance. HELLFIRE II, the latest variant of Laser HELLFIRE, provides for point target precision strike, defeats future advanced armor threat, is effective against countermeasures, and is shipboard compatible. Longbow HELLFIRE uses a radio frequency guidance section and is a fire-and-forget missile which substantially enhances survivability of the AH-64D Longbow Apache Helicopter. Longbow HELLFIRE provides the capability to engage targets both day and night in adverse weather and with battlefield obscurants present. HELLFIRE II and Longbow HELLFIRE are the primary anti-tank armament of the AH-64 Apache, OH-58D Kiowa Warrior, and Special Operations helicopters and will 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. FY 04 - FY 07 will procure Counter Active Protection Systems (CAPS) and Home on Jam/Anti-Jam capability for the Longbow Hellfire. FY 05 begins procurement of long lead items and initial production facilities for the Advanced Precision Kill Weapon System (APKWS). The APKWS will incorporate a laser guidance section with 2.75 inch munition components and launch equipment which will complement the HELLFIRE missile in precision strikes against soft point targets. The APKWS will provide improved accuracy over the current 2.75 rocket used on the AH-64 Apache, OH-58 Kiowa Warrior, and the RAH-66 Comanche helicopters. This system supports the Legacy to Objective transition path of the Transformation Campaign Plan.

Justification:

FY 03 funds the fifth year of the Longbow HELLFIRE missile five-year multiyear production contract and also supports the ongoing training, fielding and deployment of the complete AH-64D Longbow Apache system.

In addition to the funding shown above, this budget line item received:

Non-add FY 2002 Defense Emergency Response Fund (DERF) Supplemental funding (\$5.0 million) for rocket motor retrofit of Hellfire missiles.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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

P-1 Item Nomenclature
LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	49140											49140
Gross Cost	2053.8	9.3	1.0		6.9							2070.9
Less PY Adv Proc	0.0	0.0	0.0		0.0							
Plus CY Adv Proc	0.0	0.0	0.0		0.0							
Net Proc (P-1)	2053.8	9.3	1.0		6.9							2070.9
Initial Spares	5.7											5.7
Total Proc Cost	2059.5	9.3	1.0		6.9							2076.6
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

Laser HELLFIRE is an Objective Force missile system that provides air-to-ground, point target, precision strike and is designed to defeat individual hardpoint targets. The missile system has the capability for modular guidance section replacements. Laser HELLFIRE uses semi-active laser terminal guidance and is the primary anti-tank armament of the AH-64 Apache, OH 58 Kiowa Warrior, and special operation helicopters. Laser HELLFIRE will be used by the RAH-66 Comanche, the Army's next generation helicopter. Beginning in FY 90, the missile was reconfigured with an interim warhead to improve lethality against near-term threat reactive armor. The current configuration of Laser HELLFIRE, the HELLFIRE II, includes hardening of the laser seeker against countermeasures, further warhead improvements for the long term, replacement of the mechanical fuze with an electrical fuze, and restoration of the original length and weight. Laser Hellfire supports the Legacy to Objective transition path of the Transformation Campaign Plan.

Justification:

FY 02 funding is required for rocket motor retrofit of HELLFIRE II missiles.

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)			Weapon System Type:			Date: February 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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													
Gov Furn Eq (GFE) Explosives													
Engineering Services													
Engineering Change Orders								6508					
Fielding													
Acceptance Testing													
SUBTOTAL								6508					
Engineering Support													
Project Mgt Admin													
Production Engineering Support								345					
SUBTOTAL								345					
Non-Recurring													
Disposal of Tool/test Equipment													
Initial Production Facilitization (IPF)													
Rate tooling/Test Equipment													
SUBTOTAL													
Peculiar Support Equipment													
Environmenral Protections													
Subtotal													
Gross P-1 End Item								6853					
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost								6853					
Plus: P-1 Cy Adv Proc													
Other Non P-1 Costs													
Initial Spares													
Mods													
Total								6853					

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2002

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:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	2508	2000	2200	2200	2200	1797						12905
Gross Cost	704.4	300.3	305.2	294.3	244.9	193.9	38.7	37.2	47.5	18.4		2184.8
Less PY Adv Proc	0.0	0.0	11.6	11.6	11.6	9.5	0.0	0.0	0.0	0.0		44.3
Plus CY Adv Proc	0.0	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		44.3
Net Proc (P-1)	704.4	344.6	293.6	282.7	233.3	184.4	38.7	37.2	47.5	18.4		2184.8
Initial Spares												
Total Proc Cost	704.4	344.6	293.6	282.7	233.3	184.4	38.7	37.2	47.5	18.4		2184.8
Flyaway U/C												
Wpn Sys Proc U/C		172.3	133.4	128.5	106.0	102.6						

Description:

Longbow HELLFIRE is an Objective Force missile system that provides fire-and-forget capability to the Apache (Legacy Force) and Comanche (Objective Force). Longbow HELLFIRE provides a versatile capability to engage targets both during 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 (Legacy Force) and Comanche (Objective Force) 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. 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. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan.

Justification:

FY 03 funds the fifth year of the five-year multiyear contract. FY 04 - FY 07 will procure Counter Active Protection Systems (CAPS) and Home on Jam/Anti-Jam capability for the Longbow Hellfire. The Longbow HELLFIRE will not change the AH-64 mission or role but will provide for increased aircraft survivability. It is planned that Longbow HELLFIRE will also be used on the Comanche.

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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					280299	2200	128	220599	2200	101	168679	1797	94
Gv Furn Eq (GFE) Explosives					662			682			573		
Engineering Services					1472			1804			4170		
Engineering Change Orders-MotorRetrofit								10194					
Fielding					1257			1134			2335		
Acceptance Testing					3425			3076			4762		
SUBTOTAL					287115			237489			180519		
Engineering Support													
Project Mgt Admin					3690			3756			3829		
Production Engineering Support					3539			3632			3942		
SUBTOTAL					7229			7388			7771		
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											5585		
SUBTOTAL											5585		
Gross P-1 End Item					294344			244877			193875		
Less: Prior Year Adv Proc					11599			11599			9479		
Net P-1 Full Funding Cost					282745			233278			184396		
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares													
Mods													
Total					282745			233278			184396		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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 \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
All-Up-Rounds										
FY 2000	Longbow Limited Liability Co Orlando, Fl	FFP-M-5(2)	AMCOM	Dec-99	Mar-02	2200	133	Yes		*
FY 2001	Longbow Limited Liability Co Orlando, Fl	FFP-M-5(3)	AMCOM	Dec-00	Jan-03	2200	128	Yes		*
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 2002

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:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	4499	3569	2392	2776	4139	1725	1368	1451		1322		23241
Gross Cost	944.3	362.6	304.1	332.2	428.9	259.5	186.3	149.0	18.4	120.0	12.0	3117.2
Less PY Adv Proc	27.4	25.6		13.9	17.2	9.0						93.0
Plus CY Adv Proc	53.0		40.0									93.0
Net Proc (P-1)	969.9	337.0	344.1	318.3	411.8	250.5	186.3	149.0	18.4	120.0	12.0	3117.2
Initial Spares		4.5	4.5	6.6	2.3	2.9	3.2	3.1	0.8			27.8
Total Proc Cost	969.9	341.5	348.6	324.9	414.1	253.4	189.5	152.0	19.2	120.0	12.0	3145.1
Flyaway U/C												
Wpn Sys Proc U/C		0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.1		

Description:

Javelin, a fire-and-forget system, is critical to the operational design of the Army's Objective Force because of its precision strike, man-portability, high reliability, and capability to engage multiple types of targets (tanks, APCs, bunkers, helicopter, walls, etc). This project provides procurement funds for Javelin, the medium antitank system for infantry, scouts, combat engineers and interim forces. These forces must have the capability to defeat numerically superior armored forces. These characteristics (manportability, reliability, fire-and-forget, and multi-target capability) are key elements of the Army's transformation to a more versatile, deployable, lethal, survivable, and sustainable force. 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. The Javelin system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

Justification:

FY03 funds the fourth year of the current four-year multiyear contract. The operational concept envisioned for fighting the antiarmor battle requires an effective, extended range, manportable, fire-and-forget weapon for dismounted combat forces. 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 2.5 times the range (2500m) of the DRAGON with a day/night integrated sight, capable of target acquisition in adverse weather and through battlefield obscurant conditions. This system will have a secondary mission of destroying bunkers and will provide defensive capability against attacking/hovering helicopters. The CLU can be used in a stand-alone mode for battlefield surveillance and target selection.

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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													
All Up Round					190225	2776	69	284649	4139	69	118950	1725	69
Engineering Services					3992			4277			4568		
Engineering Change Orders					162			243			104		
Acceptance Testing					3080			5810			6221		
Fielding					1328			2100			2598		
Subtotal Missile Hardware					198787			297079			132441		
Procurement Support													
Government Project Management					9901			9791			9921		
Government Production Engineering					4002			4215			4818		
Publications/Technical Data					495			563			612		
Subtotal Procurement Support					14398			14569			15351		
Command & Launch Hardware													
Command Launch Unit					83985	808	104	87773	840	105	85424	817	105
Engineering Services					1331			1426			1699		
Engineering Change Orders					74			77			75		
Fielding					3229			4157			5171		
SubTotal C&L Hardware					88619			93433			92369		
Training Devices													
Field Tactical Trainer-Student Station					22963	351	66	15440	236	66	14262	218	66
Field Tactical Trainer-Instrtr Station					2480	101	25	2799	114	25			
Basic Skills Trainer					3764	59	64	4466	70	64	3956	62	64
Missile Simulation Round					1168	473	3	1135	454	3	1077	461	3
SubTotal Training Devices					30375			23840			19295		
Gross P-1 End Cost					332179			428921			259456		
Less: Prior Year Adv Proc					-13879			-17171			-8950		
Net P-1Full Funding Cost					318300			411750			250506		
PLUS P-1 CY Adv. Proc.													
Other Non P-1 Costs													
Initial Spares					6554			2339			2895		
Total					324854			414089			253401		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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 1999	JV/All Up Round Multiyear 1 Tucson, AZ/Orlando, FL	SS/FP/M3-3	AMCOM	Dec 98	May 01	3569	79	Yes		
FY 2000	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-1	AMCOM	Aug 00	Feb 02	2392	68	Yes		
FY 2001	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-2	AMCOM	Dec 00	Feb 03	2776	69	Yes		
FY 2002	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-3	AMCOM	Dec 01	Feb 04	4139	69	Yes		
FY 2003	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-4	AMCOM	Dec 02	Feb 05	1725	69	Yes		
Command Launch Unit										
FY 1999	JV/All Up Round Multiyear 1 Tucson, AZ/Orlando, FL	SS/FP/M3-3	AMCOM	Dec 98	Jan 01	298	127	Yes		
FY 2000	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-1	AMCOM	Aug 00	Oct 01	610	104	Yes		
FY 2001	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-2	AMCOM	Dec 00	Oct 02	808	104	Yes		
FY 2002	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-3	AMCOM	Dec 01	Oct 03	840	105	Yes		
FY 2003	JV/All Up Round Multiyear 2 Tucson, AZ/Orlando, FL	SS/FP/M4-4	AMCOM	Dec 02	Oct 04	817	105	Yes		

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2002

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

P-1 Item Nomenclature
LINE OF SIGHT ANTI-TANK (LOSAT) SYSTEM SUM (H09000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty						144	110	218	218	218	760	1668
Gross Cost						27.3	61.4	108.8	112.8	111.7	428.0	849.9
Less PY Adv Proc						9.4						9.4
Plus CY Adv Proc					9.4							9.4
Net Proc (P-1)					9.4	17.9	61.4	108.8	112.8	111.7	428.0	849.9
Initial Spares												
Total Proc Cost					9.4	17.9	61.4	108.8	112.8	111.7	428.0	849.9
Flyaway U/C												
Wpn Sys Proc U/C						124.6	558.1	499.1	517.3	512.4		

Description:

Line-of-Sight Anti-Tank (LOSAT) and the Kinetic Energy Missile (KEM) technology provides the foundation for the OBJECTIVE FORCE. 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 Multipurpose Wheeled Vehicle (HMMWV) chassis. LOSAT offers a 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 theatre, LOSAT is extremely mobile, to include air droppable and sling loading 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 protection systems and enhanced reactive armors which are both rapidly becoming available on the global marketplace. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

Justification:

The FY 03 funds procure 144 LOSAT missiles, which is the residual inventory of the ACTD effort. LOSAT mitigates the Light Force survivability/lethality shortcoming identified in the Light Antitank Study (FEB99).

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty						144	110	218	218	218	760	1668
Gross Cost						27.3	61.4	108.8	112.8	111.7	856.0	1277.9
Less PY Adv Proc						9.4					428.0	437.4
Plus CY Adv Proc					9.4							9.4
Net Proc (P-1)					9.4	17.9	61.4	108.8	112.8	111.7	428.0	849.9
Initial Spares												
Total Proc Cost					9.4	17.9	61.4	108.8	112.8	111.7	428.0	849.9
Flyaway U/C												
Wpn Sys Proc U/C						124.6	558.1	499.1	517.3	512.4	563.2	

Description:

Line-of-Sight Anti-Tank(LOSAT) and the Kinetic Energy Missile(KEM) technology provides the foundation for the OBJECTIVE FORCE. 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 Multipurpose Wheeled Vehicle (HMMWV) chassis. LOSAT offers a 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 will provide an assault support weapon capability. LOSAT is strategically and tactically deployable, giving commanders and decision makers greater flexibility. Once in theatre, LOSAT is extremely mobile, to include air droppable and sling loading 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 (PE0603654) 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 warfighting experiments, and evaluate affordability issues. In December 1999, the Army and DOD funded the LOSAT accelerated advanced development and procurement as part of the Army Transformation, adding additional design activities, test hardware, and qualification and operational tests concurrent with the ACTD, which will assure design maturity support for entry into Low Rate Initial Production (LRIP) in FY 04. This ACTD Plus System Development Demonstration (SDD) effort is funded in PE 0604819A. This system supports the Legacy To Objective transition path of the Transformation Campaign Plan (TCP).

Justification:

The FY 03 funds procure 144 LOSAT missiles, which is the residual inventory of the ACTD effort. LOSAT mitigates the Light Force survivability/lethality shortcoming identified in the Light Antitank Study (FEB99).

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Quantity Hardware Missiles (Complete Round) Engineering Services GFM Engineering Change Orders Fielding											27298	144	190.00
Subtotal Missile Hardware											27298		
Procurement Support Project Management Admin Test & Evaluation													
Subtotal Flyaway													
Total Flyaway											27298		
Gross P-1 End Cost													
Less Prior Year Adv Proc													-9361
Net P-1 Full Funding Costs													
Plus: P-1 CY Adv Proc Other Non P-1 Costs Initial Spares Mods								9361					
Total								9361					
Total								9361			17937		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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 2003	LMMFC-MISSILE DALLAS, TX	CPIF	AMCOM	Jun 03	Dec 03	144	190	No		

REMARKS: 1. The FY 03 funds procure the residual missile hardware for the LOSAT Advanced Concept Technology Demonstration Program. FY02 funds are provided for Long Lead Items(LLI). Low rate initial production (LRIP) is scheduled to begin in FY 04.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2002

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

P-1 Item Nomenclature
LINE OF SIGHT ANTI-TANK (LOSAT) SYSTEM SUM(Adv Proc) (H09000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost												
Less PY Adv Proc												
Plus CY Adv Proc					9.4							9.4
Net Proc (P-1)					9.4							9.4
Initial Spares												
Total Proc Cost					9.4							9.4
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

Line-of-Sight Anti-Tank (LOSAT) and the Kinetic Energy Missile (KEM) technology provide the foundation for the Objective Force. 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 Multipurpose Wheeled Vehicle (HMMWV) chassis. LOSAT offers a 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 will provide an assault support weapon capability. LOSAT is strategically and tactically deployable, giving commanders and decision makers greater flexibility. Once in theatre, LOSAT is extremely mobile, to include air droppable and sling loading 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 protection 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 (PE0603654) 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 inflight tests and advanced warfighting 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, test hardware, and qualification and operational tests concurrent with the ACTD, which will assure design maturity to support entry into Low Rate Initial Production (LRIP) in FY 04. This ACTD Plus System Development Demonstration (SDD) effort is funded in PE0604819 and is concurrent with the ACTD contract. This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

Justification:

FY 02 Advance Procurement will procure long lead items such as solid rocket motor components, inertial measurement unit, attitude control motors, aft looking receivers, and various guidance electronic components to support the procurement of 144 LOSAT missiles in FY 03, which is the residual inventory of the ACTD.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2002

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

P-1 Item Nomenclature
MLRS ROCKET (C65400)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

C565042

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	482568											482568
Gross Cost	3698.7		4.4	5.7								3708.9
Less PY Adv Proc	449.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		449.8
Plus CY Adv Proc	449.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		449.8
Net Proc (P-1)	3698.7		4.4	5.7								3708.9
Initial Spares												
Total Proc Cost	3698.7		4.4	5.7								3708.9
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The Extended Range Multiple Launch Rocket System (ER-MLRS), which began production in FY96, includes a tube-launched, spin stabilized, free flight rocket. Major assemblies of the rocket are a fuzed warhead, a rocket motor, four fins, a fin opening/restraint device, and four sabots. The rocket is packaged in a six rocket pod and can be fired one at a time or in ripples of two to six. The ER-MLRS rocket enhances the capability of the existing MLRS rocket by providing improvements in range, accuracy and effectiveness. The objective system provides counterfire and suppression of enemy air defenses, light materiel, and personnel targets. The increased range gives positioning flexibility and improves lateral ranging of targets on tomorrow's wider battlefronts. Operation Desert Storm identified the need for increased range to defeat long range targets. ER-MLRS accomplishes this mission. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Justification:

Funds will provide program support and production engineering associated with completion of production.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

Appropriation/Budget Activity/Serial No: P-1 Item Nomenclature
 Missile Procurement, Army /2/Other missiles MLRS EXTENDED RANGE ROCKET (C65402)

Program Elements for Code B Items: Code: Other Related Program Elements:
C65400, C65404, C65405

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	4170											4170
Gross Cost	109.1		4.4	5.7								119.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	109.1		4.4	5.7								119.3
Initial Spares												
Total Proc Cost	109.1		4.4	5.7								119.3
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The Extended Range Multiple Launch Rocket System (ER-MLRS), which began production in FY96, includes a tube-launched, spin stabilized, free flight rocket. Major assemblies of the rocket are a fuzed warhead, a rocket motor, four fins, a fin opening/restraint device and four sabots. The rocket is packaged in a six rocket pod and can be fired one at a time or in ripples of two to six. The ER-MLRS rocket enhances the capability of the existing MLRS rocket by providing improvements in range, accuracy and effectiveness. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: MLRS EXTENDED RANGE ROCKET (C65402)			Weapon System Type:			Date: February 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
FLY-AWAY COSTS													
HARDWARE													
Extended Range Rockets (ER-MLRS)													
Submunition													
Engineering Services					265								
Ind Maint/Init Prod Fac/TWIU/Int fuze													
Production Engineering					1876								
Other Government Agencies					389								
Test and Evaluation					1500								
Engineering Change Orders													
Fielding					20								
Facilitization													
SUBTOTAL					4050								
PROCUREMENT SUPPORT													
Project Management Admin					1677								
SUBTOTAL					1677								
Total					5727								

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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:
C65400, C65402, C65405

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty						108	678	906	930	828	114724	118174
Gross Cost						29.7	85.0	100.9	90.4	78.0	8210.2	8594.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)						29.7	85.0	100.9	90.4	78.0	8210.2	8594.2
Initial Spares												
Total Proc Cost						29.7	85.0	100.9	90.4	78.0	8210.2	8594.2
Flyaway U/C												
Wpn Sys Proc U/C						0.3	0.1	0.1	0.1	0.1		

Description:

The Guided Multiple Launch Rocket System (GMLRS) is an Objective Force Missile System and is the next evolutionary step for MLRS Rockets serving as the baseline for all future Objective Force rocket munitions. The GMLRS will integrate a guidance and control package and a new rocket motor to achieve greater range and precision accuracy resulting in reduced logistics footprint for deployed forces. GMLRS will be effective against counterfire, air defense, light materiel, and personnel targets. The GMLRS will provide greater range and significantly enhanced accuracy. Since fewer rockets will be required to defeat a target, the logistics burden will be reduced. This system supports the Legacy to Objective transition path of the Army Transformation Campaign Plan (TCP).

Justification:

FY03 funding procures initial production facilitization and the initial Low Rate Production (LRIP I) of GMLRS rockets for Initial Operational Capability (IOC). This rocket is the baseline for all future Objective Force MLRS/HIMARS Rocket Munitions.

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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											11900	108	111
Engineering Services											286		
Ind Maint/Init Prod Fac											6000		
Fielding													
Subtotal Hardware											18186		
Procurement Support													
Project Management Admin											920		
Production Engineering Support											4649		
Test and Evaluation											5141		
Subtotal Procurement Support											10710		
Total Missile Flyaway											28896		
Support Costs													
EOD Trainer											802		
Subtotal Support Costs											802		
Total											29698		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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 \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Tactical GMLRS FY 2003	Lockheed Martin M.&F.C Sys. Dallas, TX	SS/FFP	PEO-Tactical Missiles/AMCOM	Apr-03	Jul-04	108	111	No		

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

Appropriation/Budget Activity/Serial No: P-1 Item Nomenclature
Missile Procurement, Army /2/Other missiles MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) (C65405)

Program Elements for Code B Items: Code: Other Related Program Elements:
C65400, C65402, C65404

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty						5646	5196	5412	5628	5844	53244	80970
Gross Cost						15.9	14.9	15.9	16.8	17.8	181.1	262.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)						15.9	14.9	15.9	16.8	17.8	181.1	262.5
Initial Spares												
Total Proc Cost						15.9	14.9	15.9	16.8	17.8	181.1	262.5
Flyaway U/C												
Wpn Sys Proc U/C						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 MLRS 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 MLRS RRPR has been in inventory since 1993 with the last United States procurement in FY95. The current stockpile of MLRS RRPRs for training use by the MLRS units is being reduced due to training consumption and requires reprocurement to preclude stockpile depletion and sustain adequate stockpile margins. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

Justification:

FY03 funding procures initial production of RRPRs required to replenish practice rocket inventory.

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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)											12149	5646	3
Fielding											407		
SUBTOTAL											12556		
PROCUREMENT SUPPORT													
Project Management Admin											754		
Production Engineering Support											2614		
Test and Evaluation													
SUBTOTAL											3368		
Total											3368		
Total											15924		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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	PEO-Tactical Missiles/AMCOM	Dec-02	Jun-03	5646	3	No		

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

Appropriation/Budget Activity/Serial No: P-1 Item Nomenclature
Missile Procurement, Army /2/Other missiles MLRS LAUNCHER SYSTEMS (C66400)

Program Elements for Code B Items: Code: Other Related Program Elements: C65900

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	775	24	39	66	35	35	31	29	32	9		1075
Gross Cost	2211.9	114.3	147.5	196.9	137.1	141.1	124.5	118.6	120.7	76.2	86.4	3475.3
Less PY Adv Proc	56.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		56.9
Plus CY Adv Proc	56.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		56.9
Net Proc (P-1)	2211.9	114.3	147.5	196.9	137.1	141.1	124.5	118.6	120.7	76.2	86.4	3475.3
Initial Spares	158.7	4.8	3.1	6.4	9.9	6.7	6.7	6.5	6.3	6.4	5.1	220.6
Total Proc Cost	2370.6	119.1	150.6	203.3	147.0	147.9	131.2	125.1	127.0	82.6	91.5	3695.9
Flyaway U/C												
Wpn Sys Proc U/C		4.8	3.8	3.0	3.9	4.0	4.0	4.1	3.8	8.5		

Description:

The Improved Multiple Launch Rocket System (MLRS) M270A1 is the only bridge for Army Deep Fires to the Objective Force. The M270A1 improves survivability 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%. It also extends the range to engage targets to 300+ kilometers. The objectives of the MLRS are 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. Mounted on a derivative of the Bradley Fighting Vehicle (BFV), the launcher/loader requires a crew of three soldiers to conduct rocket and missile launches. The M270A1 is capable of firing either 12 rockets or 2 missiles from a single launcher. Utilizing the MLRS Family of Munitions, the system is now capable of engaging targets from ranges extending from 15 to 300+ kilometers. The M270A1 is one of the Army's recapitalization systems in which the launcher is completely remanufactured. The remanufactured launcher 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 which will expand the systems' target set. The M270A1 is critical to the Counterattack capability of the Army Force Transformation and Recapitalization. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Justification:

FY03 funding provides for continued remanufacture of LLM/Carriers and production of the M270A1 launchers and associated support equipment to meet fielding requirements. The M270A1 launcher is critical to U.S. Forces Korea and Army Counterattack Corps, and required to shoot all current and future artillery rocket and missile precision munitions.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

Appropriation/Budget Activity/Serial No: P-1 Item Nomenclature
 Missile Procurement, Army /2/Other missiles MLRS LAUNCHER (C65900)

Program Elements for Code B Items: Code: C66400
Other Related Program Elements: C66400

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	775	24	39	66	35	35	31	29	32	9		1075
Gross Cost	2211.9	114.3	147.5	196.9	137.1	141.1	124.5	118.6	120.7	76.2	86.4	3475.3
Less PY Adv Proc	56.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		56.9
Plus CY Adv Proc	56.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		56.9
Net Proc (P-1)	2211.9	114.3	147.5	196.9	137.1	141.1	124.5	118.6	120.7	76.2	86.4	3475.3
Initial Spares	158.7	4.8	3.1	6.4	9.9	6.7	6.7	6.5	6.3	6.4	5.1	220.6
Total Proc Cost	2370.6	119.1	150.6	203.3	147.0	147.9	131.2	125.1	127.0	82.6	91.5	3695.9
Flyaway U/C												
Wpn Sys Proc U/C		4.8	3.8	3.0	3.9	4.0	4.0	4.1	3.8	8.5		

Description:

The Improved Multiple Launch Rocket System (MLRS) M270A1 is the only bridge for Army Deep Fires to the Objective Force. The M270A1 improves survivability 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%. It also extends the range to engage targets to 300+ kilometers. The objectives of the MLRS are 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. Mounted on a derivative of the Bradley Fighting Vehicle (BFV), the launcher/loader requires a crew of three soldiers to conduct rocket and missile launches. The M270A1 is capable of firing either 12 rockets or 2 missiles from a single launcher. Utilizing the MLRS Family of Munitions, the system is now capable of engaging targets from ranges extending from 15 to 300+ kilometers. The M270A1 is one of the Army's recapitalization systems in which the launcher is completely remanufactured. The remanufactured launcher 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 which will expand the systems' target set. The M270A1 is critical to the Counterattack capability of the Army Force Transformation and Recapitalization. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Justification:

FY03 funding provides for continued remanufacture of LLM/Carriers and production of the M270A1 launchers and associated support equipment to meet fielding requirements. The M270A1 launcher is critical to U.S. Forces Korea and Army Counterattack Corps and required to shoot all current and future artillery rocket and missile precision munitions.

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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					104987	66	1591	63744	35	1822	62014	35	1772
Remanufacture					24630			7821			8425		
Launcher Pod/Container (LP/C) Trainer					1103	132	9	792	70	12	808	70	12
2x9/3x6 Launcher													
Peculiar Support Equipment					15519			19006			28513		
Restructure					10149								
Engineering Services					14350			17751			15911		
Production Engineering					11423			10595			10813		
Other Government Agencies					4118			3091			2967		
Fielding					753			1312			1685		
Facilitization					1946			4759			1612		
SUBTOTAL					188978			128871			132748		
PROCUREMENT SUPPORT													
Project Management Admin					7970			8214			8383		
SUBTOTAL					7970			8214			8383		
Gross P-1 End Cost					196948			137085			141131		
Total					196948			137085			141131		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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 2000	Lockheed Martin M.&F.C.Sys Dallas, Texas	SS/FFP	PEO Tactical Missiles/AMCOM	Jun 00	Jan 02	39	1937	Yes		
FY 2001	Lockheed Martin M.&F.C.Sys Dallas, Texas	SS/FFP	PEO Tactical Missiles/AMCOM	Dec 00	Dec 02	66	1591	Yes		
FY 2002	Lockheed Martin M.&F.C.Sys Dallas, Texas	SS/FFP	PEO Tactical Missiles/AMCOM	Dec 01	Dec 03	35	1822	Yes		
FY 2003	Lockheed Martin M.&F.C.Sys Dallas, Texas	SS/FFP	PEO Tactical Missiles/AMCOM	Dec 02	Dec 04	35	1772	Yes		

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2002

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:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty						34	24	36	40	58	516	708
Gross Cost						128.4	115.6	162.2	177.1	235.5	2099.0	2917.7
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)						128.4	115.6	162.2	177.1	235.5	2099.0	2917.7
Initial Spares							7.7	3.6	7.7	7.8	168.9	195.7
Total Proc Cost						128.4	123.2	165.8	184.7	243.3	2267.9	3113.4
Flyaway U/C												
Wpn Sys Proc U/C						3.8	4.8	4.5	4.4	4.1	4.1	

Description:

HIMARS is a C-130 transportable, wheeled, indirect fire, rocket/missile system 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 track launcher and will consist of a Fire Control System (FCS), a carrier (FMTV M1096 automotive chassis) and a launcher-loader module (LLM) portion that will perform 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. HIMARS meets Army's digitization requirements by interfacing with the Advanced Field Artillery Tactical Data System (AFATDS), fire support command and control system and the Force XXI Battle Command Brigade and Below (FBCB2). HIMARS will be interoperable with existing MLRS units in terms of communications and reloading capabilities. HIMARS will be an all-weather, day/night, indirect fire, single or multiple launch system capable of delivering the MFOM in support of light, airborne, air assault divisions and forced/early entry contingency force operations using a more deployable, lethal, survivable and tactically mobile long range system. The HIMARS will be deployable worldwide and will operate in a wide range of climatic conditions. It is already certified by the Air Force for fixed-wing air transport in a fully combat loaded, combat ready configuration. The HIMARS will provide maneuver forces a flexible and lethal rocket/missile capability that can be employed by platoon, battery, or battalion, each with the ability to operate independently for a limited period. HIMARS units will execute general support, general support reinforcing, or limited reinforcing missions. Force commanders will use it to provide counterfire, Theater Missile Defense Attack Operations, Suppression of Enemy Air Defenses (SEAD) and precision interdiction in both the offense and the defense. HIMARS units can be quickly tailored for centralized or decentralized execution throughout the depth and breadth of the battlespace in support of distributed forces. This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

Justification:

FY 03 funding procures initial low rate production of HIMARS launchers, trainers and associated support equipment. HIMARS meets the Army's modernization goal for the 21st century, is designated Army's "Legacy to Objective" rocket/missile delivery system, and was selected by Army strategic planners as one of the Army's seven "core" transformation systems.

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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											90648	34	2667
Carrier											13103	34	386
MLPA Trainer											685	34	21
Pequiar Support Equipment											3668		
Engineering Services											2488		
Production Engineering											5430		
Other Government Agencies											3801		
Fielding													
Facilitization													
SUBTOTAL											119823		
PROCUREMENT SUPPORT													
Project Management Admin											8579		
SUBTOTAL											8579		
Gross P-1 End Cost											128402		
Total											128402		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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 \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Launcher FY 2003	Lockheed Martin M.&F.C. Sys Dallas Texas	SS/FFP	PEO Tactical Missiles/AMCOM	Dec 02	Jun 04	34	2667			

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2002

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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	1993	96	110	100	12							2311
Gross Cost	1360.4	87.2	90.8	95.1	25.1	9.1						1667.6
Less PY Adv Proc	75.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.1
Plus CY Adv Proc	75.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.1
Net Proc (P-1)	1360.4	87.2	90.8	95.1	25.1	9.1						1667.6
Initial Spares	4.2											4.2
Total Proc Cost	1364.6	87.2	90.8	95.1	25.1	9.1						1671.8
Flyaway U/C												
Wpn Sys Proc U/C		0.9	0.8	1.0	2.1							

Description:

The Army Tactical Missile System (ATACMS) plays a critical role in supporting the Legacy Force Transformation to the Objective Force. ATACMS is a ground-launched missile system consisting of a surface-to-surface guided missile with an anti-personnel, anti-materiel (APAM) warhead. The Army TACMS Block IA integrates global positioning system (GPS) components and increases the range of the Block I missile. The inherent GPS accuracies will be achievable independent of range. Army TACMS missiles are fired from the Multiple Launch Rocket System (MLRS) modified M270 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. HIMARS is a Legacy to Objective Force Weapons platform that provides a technology bridge to the Objective Force. Army TACMS includes the Guided Missile and Launcher Assembly, the Test Set, the Training Set, the Trainer, the Test Device, the Modified M270 launcher and the Army TACMS Missile Facilities (ATMF). ATACMS Unitary is also a critical asset for the Objective Force. This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

Justification:

FY 03 funding supports the deliveries of prior year procurements. The ATACMS Block IA supports the Army's Objective Force by providing the ground commander an air-transportable, deep-fire missile system that operates in nearly all weather conditions, day or night. The ATACMS Block IA is fired from the M270A1 and the High Mobility Artillery Rocket System, the technology bridge to the Objective Force. It is used to attack tactical surface-to-surface missile sites, air defense missile sites, logistics elements and command/control/communications complexes. The Block IA missile will destroy high value targets at ranges approximately twice that of the current Block I. The Block IA will be especially suited for destroying enemy surface-to-surface missile system launchers. FY 01 included \$6M to deliver a quick reaction/immediate need unitary warhead for precise long-range engagements without the threat of collateral damage. FY 02 funds production of 12 ATACMS unitary missiles.

In addition to the funding shown above, this budget line item received:

Non-add FY 2002 Defense Emergency Response Fund (DERF) Supplemental funding (\$38.0 million) for Army Tactical Missile System (ATACMS) Quick Reaction Program (QRP) Unitary Missile.

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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					70551	100	706	11364	12	947			
Engineering Services					7000			4200			1950		
Fielding					150			150			150		
SubTotal Missile Hardware					77701			15714			2100		
Procurement Support													
Project Management					3380			2256			1850		
Production Engineering Support					8238			4317			3100		
Test and Evaluation					2425			2500			1500		
Subtotal Procurement Support					14043			9073			6450		
Total Missile Flyaway					91744			24787			8550		
Command & Launch Hardware													
Command & Launch Integration Support					900			300			500		
Subtotal C & L Integration					900			300			500		
Support Costs													
Missile Test Device					2500								
ATMF Test and Support Equipment													
Subtotal Support Cost					2500								
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					95144			25087			9050		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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 \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Prime Contract										
FY 2001	Lockheed Martin Missiles Dallas, TX	SS/FFP	AMCOM	Dec 00	Feb 02	100	706	Yes		Sep 96
FY 2002	Lockheed Martin Missiles Dallas, TX	SS/FFP	AMCOM	MAR 02	Feb 03	12	947	Yes		Sep 96

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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

P-1 Item Nomenclature
ATACMS BLKII SYSTEM SUMMARY (CA6101)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty		24	48	34	6		19	38	75	82	909	1235
Gross Cost		160.1	221.5	215.4	60.6	49.7	221.3	252.9	296.0	303.7	2534.4	4315.6
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)		160.1	221.5	215.4	60.6	49.7	221.3	252.9	296.0	303.7	2534.4	4315.6
Initial Spares				1.4	1.4							2.7
Total Proc Cost		160.1	221.5	216.7	61.9	49.7	221.3	252.9	296.0	303.7	2534.4	4318.3
Flyaway U/C												
Wpn Sys Proc U/C		6.7	4.6	6.3	10.1		11.6	6.7	3.9	3.7	2.8	

Description:

The Army Tactical Missile System Block II (ATACMS BLK II) is a version of the currently fielded and combat-proven Army TACMS Block I missile, a ground-launched, solid propellant, inertially guided (Global Positioning System aided) missile system with 13 BATs or P3I BATs as its payload. It is launched from the Multiple Launch Rocket System (MLRS) M270A1 launcher or the High Mobility Artillery Rocket System (HIMARS), the technology bridge to the Objective Force, and will be deployed within the ammunition loads of Corps MLRS battalions and/or Division artillery MLRS batteries. The BAT submunition employs acoustic and infrared (IR) sensors to detect, acquire and engage moving armored vehicles. The P3I BAT program will provide a new sensor suite (millimeter wave and imaging infrared), which greatly reduces the impact of weather and countermeasures on effectiveness and enables the BAT submunition to attack critical high priority targets, including cold, stationary, armored targets, Surface-to-Surface Missile (SSM) Transporter Erector Launchers (TELs), and Heavy Multiple Rocket Launchers (MRLs). ATACMS Block II with BAT and P3I BAT is the Army's only unmanned system with multimode sensors capable of attacking time critical, high value targets with large target location errors in near all weather conditions. The P3I BAT is capable of attacking weapons of mass destruction such as the increasingly prevalent "shoot and scoot" SCUD missiles and heavy multiple rocket launcher systems. This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

Justification:

FY03 funds will be used to continue support for production related activities; i.e., engineering services, test set upgrades, production verification testing (PVT), and costs associated with maintaining production capability in preparation for future integration and production of the P3I BAT. The primary mission of the ATACMS BLK II is to provide the Army's Objective Force and Joint Forces with a deep strike capability to delay, disrupt, or destroy armored combat vehicles. The ATACMS BLK II missile is fired from the M270A1 launcher and the High Mobility Artillery Rocket System (HIMARS). HIMARS is a Legacy to the Objective Force system. ATACMS BLK II carries BAT and P3I BAT submunitions deep into enemy territory where these submunitions can autonomously track and destroy targets.

Exhibit P-40C, Budget Item Justification Sheet

Date:

February 2002

Appropriation/Budget Activity/Serial No:

Missile Procurement, Army /2/Other missiles

P-1 Item Nomenclature

ATACMS BLKII SYSTEM SUMMARY (CA6101)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

It is the only Army System with multimode sensors capable of time critical, immediate fire support and a large zone of influences in near all weather conditions, the only Army unmanned system capable of overcoming large targeting errors, and, with P3I BAT, the only Army unmanned system capable of killing the increasingly prevalent "shoot and scoot" SCUDs and heavy multiple rocket launchers.

In addition to the funding shown above, this budget line item received:

Non-add Cost of War funding for the Army Tactical Missile System-Penetrator (TACMS-P). The TACMS-P will provide the Army with a standoff ballistic-missile-delivered penetrator weapon for use in a counter-proliferation role.

FY 2004 \$70.0 million
FY 2005 \$170.0 million
FY 2006 \$120.0 million
FY 2007 \$ 5.0 million

Exhibit P-5, Weapon MSLS Cost Analysis		Appropriation/Budget Activity/Serial No. Missile Procurement, Army / 2 / Other missiles			P-1 Line Item Nomenclature: ATACMS BLKII SYSTEM SUMMARY (CA6101)			Weapon System Type:			Date: February 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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													
ATACMS Block II Missile System (CA6101)													
Prime Contract (BLK II Missile CA6105)					89882	34	2644	13129	6	2189			
Prime Contract (BAT Submunition CA6100)					112752	505	224	20833	83	251			
Flight Kits					1594			925					
Engineering Services								5000			25258		
FDT								36			30		
Engineering Change Orders (ECOs)													
Fielding													
SubTotal Missile Hardware					204228			39923			25288		
Procurement Support													
Project Management					6103			6576			4885		
Production Engineering Support					4348			6069			11992		
Test and Evaluation					680			7246			6624		
Subtotal Procurement Support					11131			19891			23501		
Total Missile Flyaway					215359			59814			48789		
Command & Launch Integration													
Command & Launch Integration Support								762			898		
SubTotal C&L Hardware								762			898		
Support Costs													
Missile Test Device and Trainer													
Army Tac Msl Fac Test & Spt Equipment													
SubTotal Support Costs													
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					1359			1362					
MODS													
TOTAL													
Total					216718			61938			49687		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2002

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

Weapon System Type:

P-1 Line Item Nomenclature:
ATACMS BLKII SYSTEM SUMMARY (CA6101)

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
ATACMS Block II Missile System (CA6101)										
FY 2001	Lockheed Martin Missiles Dallas, TX	SS/FFP	AMCOM	JUL 01	JUL 03	34	5543	YES		NOV 00
FY 2002	Lockheed Martin Missiles Dallas, TX	SS/FFP	AMCOM	MAR 02	APR 04	6	5451	YES		NOV 00

REMARKS: The unit cost reflects the total hardware procurement dollars for one ATACMS Block II missile system. The ATACMS Block II system is comprised of the Block II missile with 13 BAT/P3I BAT submunitions.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	430.9	13.1	30.1	22.7	24.9	151.3	234.6	90.2	79.4	81.6	340.1	1499.1
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)	430.9	13.1	30.1	22.7	24.9	151.3	234.6	90.2	79.4	81.6	340.1	1499.1
Initial Spares	52.4	4.9	3.6	2.6	0.7	40.7	32.7	15.2	15.6	9.8	23.3	201.5
Total Proc Cost	483.3	18.0	33.7	25.3	25.7	192.0	267.3	105.4	95.1	91.4	363.4	1700.6
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 Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

Justification:

FY03 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.

Exhibit P-40M, Budget Item Justification Sheet

Date:

February 2002

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

Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
RLCEU											
1-92-03-1233-00-0000		26.1	12.6	14.7	22.5	43.3	7.7	0.0	0.0	0.0	126.9
Block VIII											
1-89-03-1230		17.3	5.4	4.3	3.0	3.6	0.0	0.0	0.0	0.0	33.6
Integrated Diagnostic Support System											
1-97-03-1244		10.8	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9
BCP (Link 16/JTIDS)											
1-97-03-1246		2.6	2.6	6.0	8.0	21.8	15.5	0.0	0.0	0.0	56.5
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		0.0	0.0	0.0	9.9	29.2	21.2	23.8	41.5	340.1	465.7
Radar Phase III											
1-89-03-1231		0.0	0.0	0.0	43.7	65.6	0.0	0.0	0.0	0.0	109.3
CDI Phase III											
1-92-03-1238		0.0	0.0	0.0	17.0	25.5	0.0	0.0	0.0	0.0	42.5
TCS (TIBS/IBS, FO, C4I, NMNG)											
1-01-01-1251		0.0	0.0	0.0	20.1	8.7	11.3	9.1	9.8	0.0	59.0
Recapitalization											
1-01-01-1252		0.0	0.0	0.0	27.1	37.0	34.4	46.5	30.3	0.0	175.3

INDIVIDUAL MODIFICATION

Date: February 2002

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	FY05
CRG	22	4	4	8	
ECS	39	6	6	10	3
ICC	12	1		2	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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	44	7	7						5	5	5		3	3	3	2	3	3	3	1
Outputs	37	7	7	7						5	5	5		3	3	3	2	3	3	3

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	5	5	5	5	4													118
Outputs	1	5	5	5	5	4												118

METHOD OF IMPLEMENTATION:	ADMINISTRATIVE LEADTIME:				PRODUCTION LEADTIME:			
Contract Dates:	FY 2002	Dec 01	FY 2003	Dec 02	3 Months	FY 2004	Dec 03	24 Months
Delivery Date:	FY 2002	Dec 03	FY 2003	Dec 04		FY 2004	Dec 05	

INDIVIDUAL MODIFICATION

Date: February 2002

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	58	24.0	15	11.1	11	13.4	10	20.5	20	39.4	4	7.0							118	115.4
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits	58	2.1																	58	2.1
FY 2001 -- Kits			15	1.5															15	1.5
FY 2002 Equip -- Kits					11	1.3													11	1.3
FY 2003 Equip -- Kits							10	2.0											10	2.0
FY 2004 Equip -- Kits									20	3.9									20	3.9
FY 2005 Equip -- Kits											4	0.7							4	0.7
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	58	2.1	15	1.5	11	1.3	10	2.0	20	3.9	4	0.7		0.0		0.0		0.0	118	11.5
Total Procurement Cost		26.1		12.6		14.7		22.5		43.3		7.7		0.0		0.0		0.0		126.9

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Block VIII [MOD 2] 1-89-03-1230

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 2001				FY 2002				FY 2003				FY 2004				FY 2005				
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	523	92	92	103	103	103	102	61	61	60	60	50	50	50	50	75	75	75	75		
Outputs	431	92	92	92	103	103	103	102	61	61	60	60	50	50	50	75	75	75	75	75	

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs																					1860
Outputs																					1860

METHOD OF IMPLEMENTATION:

Contract Dates:

FY 2002 Dec 01

ADMINISTRATIVE LEADTIME:

6 Months

FY 2003 Dec 02

PRODUCTION LEADTIME:

6 Months

FY 2004 Dec 03

Delivery Date:

FY 2002 Jun 02

FY 2003 Jun 03

FY 2004 Jun 04

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Block VIII [MOD 2] 1-89-03-1230

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E																				
Procurement																					
Kit Quantity	707	15.6	411	5.0	242	3.8	200	2.6	300	3.0									1860	30.0	
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
Installation of Hardware																					
FY 2000 & Prior Equip -- Kits	707	1.7																	707	1.7	
FY 2001 -- Kits			411	0.4															411	0.4	
FY 2002 Equip -- Kits					242	0.5													242	0.5	
FY 2003 Equip -- Kits							200	0.4											200	0.4	
FY 2004 Equip -- Kits									300	0.6									300	0.6	
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 Equip -- Kits																					
TC Equip- Kits																					
Total Installment	707	1.7	411	0.4	242	0.5	200	0.4	300	0.6		0.0		0.0		0.0		0.0	1860	3.6	
Total Procurement Cost		17.3		5.4		4.3		3.0		3.6		0.0		0.0		0.0		0.0		33.6	

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Integrated Diagnostic Support System [MOD 3] 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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	7	7			5															
Outputs	7		7			5														

	FY 2006				FY 2007				FY 2008				FY 2009				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 2002

Delivery Date: FY 2002

ADMINISTRATIVE LEADTIME:

FY 2003

FY 2003

3 Months

PRODUCTION LEADTIME:

FY 2004

FY 2004

9 Months

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Integrated Diagnostic Support System [MOD 3] 1-97-03-1244

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity	14	10.2	5	2.0															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																				
FY 2000 & Prior Equip -- Kits	14	0.6																	14	0.6
FY 2001 -- Kits			5	0.1															5	0.1
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	14	0.6	5	0.1		0.0		0.0		0.0		0.0		0.0		0.0		0.0	19	0.7
Total Procurement Cost		10.8		2.1		0.0		0.0		0.0		0.0		0.0		0.0		0.0		12.9

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: BCP (Link 16/JTIDS) [MOD 4] 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.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Major milestones are not applicable.

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	2	2	2	2	2	2	2	1	3	3	3	2	4	4	5	5	3	3	3	2
Outputs		2	2	2	2	2	2	2	1	3	3	3	2	4	4	5	5	3	3	3

	FY 2006				FY 2007				FY 2008				FY 2009				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	4																Complete	59
Outputs	2	4																59

METHOD OF IMPLEMENTATION:

Contract Dates:	FY 2002	Apr 02	ADMINISTRATIVE LEADTIME:	6 Months	PRODUCTION LEADTIME:	6 Months
Delivery Date:	FY 2002	Oct 02	FY 2003	Apr 03	FY 2004	Apr 04
			FY 2003	Oct 03	FY 2004	Oct 04

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): BCP (Link 16/JTIDS) [MOD 4] 1-97-03-1246

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity	8	2.3	7	2.3	11	5.4	18	7.1	11	19.2	4	15.1							59	51.4
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits	8	0.3																	8	0.3
FY 2001 -- Kits			7	0.3															7	0.3
FY 2002 Equip -- Kits					11	0.6													11	0.6
FY 2003 Equip -- Kits							18	0.9											18	0.9
FY 2004 Equip -- Kits									11	2.6									11	2.6
FY 2005 Equip -- Kits											4	0.4							4	0.4
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	8	0.3	7	0.3	11	0.6	18	0.9	11	2.6	4	0.4		0.0		0.0		0.0	59	5.1
Total Procurement Cost		2.6		2.6		6.0		8.0		21.8		15.5		0.0		0.0		0.0		56.5

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Tactical Command System [MOD 5] 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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	15																			
Outputs	2	3	3	7																

	FY 2006				FY 2007				FY 2008				FY 2009				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 2002

Delivery Date: FY 2002

ADMINISTRATIVE LEADTIME:

FY 2003

FY 2003

3 Months

PRODUCTION LEADTIME:

FY 2004

FY 2004

6 Months

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Tactical Command System [MOD 5] 1-98-03-1251

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		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																				
FY 2000 & Prior Equip -- Kits	15	0.1																	15	0.1
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 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	15	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 2002

MODIFICATION TITLE: RAM MODS [MOD 6] 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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals											59	59	59	59	173	173	173	172	127	127
Inputs																				
Outputs												59	59	59	59	173	173	173	172	127

	FY 2006				FY 2007				FY 2008				FY 2009				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	127	127	142	142	142	142	248	248	247	247							8151	11144
Outputs	127	127	127	142	142	142	142	248	248	247	247						8151	11144

METHOD OF IMPLEMENTATION:

Contract Dates:

FY 2002 Dec 01

ADMINISTRATIVE LEADTIME:

6 Months

FY 2003 Dec 02

PRODUCTION LEADTIME:

6 Months

FY 2004 Dec 03

Delivery Date:

FY 2002 Jun 02

FY 2003 Jun 03

FY 2004 Jun 04

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): RAM MODS [MOD 6] 1-98-03-1249

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RD&E																			
Procurement																				
Kit Quantity							236	8.8	691	26.0	508	18.9	568	21.2	990	36.9	8151	302.7	11144	414.5
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits							236	1.1											236	1.1
FY 2004 Equip -- Kits									691	3.2									691	3.2
FY 2005 Equip -- Kits										508	2.3								508	2.3
FY 2006 Equip -- Kits												568	2.6						568	2.6
FY 2007 Equip -- Kits														990	4.6				990	4.6
TC Equip- Kits																8151	37.4		8151	37.4
Total Installment		0.0		0.0		0.0	236	1.1	691	3.2	508	2.3	568	2.6	990	4.6	8151	37.4	11144	51.2
Total Procurement Cost		0.0		0.0		0.0		9.9		29.2		21.2		23.8		41.5		340.1		465.7

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Radar Phase III [MOD 7] 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	

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs																	1	1	1	1
Outputs																		1	1	1

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	1	2	1	2													Complete	10
Outputs	1	1	2	1	2													10

METHOD OF IMPLEMENTATION:

Contract Dates:	FY 2002	ADMINISTRATIVE LEADTIME:	5 Months	PRODUCTION LEADTIME:	24 Months
Delivery Date:	FY 2002	FY 2003 Dec 02		FY 2004 Dec 03	
		FY 2003 Nov 04		FY 2004 Nov 05	

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Radar Phase III [MOD 7] 1-89-03-1231

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		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																					
FY 2000 & Prior Equip -- Kits																					
FY 2001 -- Kits																					
FY 2002 Equip -- Kits																					
FY 2003 Equip -- Kits							4	5.2											4	5.2	
FY 2004 Equip -- Kits									6	7.9									6	7.9	
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 Equip -- Kits																					
TC Equip- Kits																					
Total Installment		0.0		0.0		0.0	4	5.2	6	7.9		0.0		0.0		0.0		0.0	10	13.1	
Total Procurement Cost		0.0		0.0		0.0		43.7		65.6		0.0		0.0		0.0		0.0			109.3

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: CDI Phase III [MOD 8] 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	

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs																	1	1	1	1
Outputs																		1	1	1

	FY 2006				FY 2007				FY 2008				FY 2009				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	1	2	1	2													Complete	10
Outputs	1	1	2	1	2													10

METHOD OF IMPLEMENTATION:

Contract Dates:	FY 2002	ADMINISTRATIVE LEADTIME:	5 Months	PRODUCTION LEADTIME:	24 Months
		FY 2003	Dec 02	FY 2004	Dec 03
Delivery Date:	FY 2002	FY 2003	Nov 04	FY 2004	Nov 05

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): CDI Phase III [MOD 8] 1-92-03-1238

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		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																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits							4	2.0											4	2.0
FY 2004 Equip -- Kits									6	3.1									6	3.1
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0	4	2.0	6	3.1		0.0		0.0		0.0		0.0	10	5.1
Total Procurement Cost		0.0		0.0		0.0		17.0		25.5		0.0		0.0		0.0		0.0		42.5

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: TCS (TIBS/IBS, FO, C4I, NMNG) [MOD 9] 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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs														2	3				1	1
Outputs															2	3				1

	FY 2006				FY 2007				FY 2008				FY 2009				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs		1	2			1	2			1	2						Complete	16
Outputs			1	2			1	2			1	2						16

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2002

Delivery Date: FY 2002

ADMINISTRATIVE LEADTIME:

FY 2003 Mar 03

FY 2003 Mar 04

33 Months

PRODUCTION LEADTIME:

FY 2004 Mar 04

FY 2004 Mar 05

12 Months

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): TCS (TIBS/IBS, FO, C4I, NMNG) [MOD 9] 1-01-01-1251

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
Procurement																					
Kit Quantity							5	17.1	2	7.7	3	9.8	3	7.6	3	8.2			16	50.4	
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
Installation of Hardware																					
FY 2000 & Prior Equip -- Kits																					
FY 2001 -- Kits																					
FY 2002 Equip -- Kits																					
FY 2003 Equip -- Kits							5	3.0											5	3.0	
FY 2004 Equip -- Kits									2	1.0									2	1.0	
FY 2005 Equip -- Kits											3	1.5							3	1.5	
FY 2006 Equip -- Kits													3	1.5					3	1.5	
FY 2007 Equip -- Kits															3	1.6			3	1.6	
TC Equip- Kits																					
Total Installment		0.0		0.0		0.0	5	3.0	2	1.0	3	1.5	3	1.5	3	1.6		0.0	16	8.6	
Total Procurement Cost		0.0		0.0		0.0		20.1		8.7		11.3		9.1		9.8		0.0		59.0	

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Recapitalization [MOD 10] 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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs														1					1	
Outputs																1				1

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Inputs		1				1				1				1					8	14
Outputs				1				1				1				1			8	14

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2002

Delivery Date: FY 2002

ADMINISTRATIVE LEADTIME:

FY 2003 Mar 03

FY 2003 Mar 04

3 Months

PRODUCTION LEADTIME:

FY 2004 Mar 04

FY 2004 Mar 05

12 Months

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Recapitalization [MOD 10] 1-01-01-1252

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity							1	24.7	1	33.7	1	31.3	1	42.3	1	27.6			5	159.6
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits							1	2.4											1	2.4
FY 2004 Equip -- Kits									1	3.3									1	3.3
FY 2005 Equip -- Kits											1	3.1							1	3.1
FY 2006 Equip -- Kits													1	4.2					1	4.2
FY 2007 Equip -- Kits															1	2.7			1	2.7
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0	1	2.4	1	3.3	1	3.1	1	4.2	1	2.7		0.0	5	15.7
Total Procurement Cost		0.0		0.0		0.0		27.1		37.0		34.4		46.5		30.3		0.0		175.3

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	89.4	13.4	21.9	33.0	5.8	1.5	1.0					166.0
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)	89.4	13.4	21.9	33.0	5.8	1.5	1.0					166.0
Initial Spares												
Total Proc Cost	89.4	13.4	21.9	33.0	5.8	1.5	1.0					166.0
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 Legacy transition path of the Transformation Campaign Plan (TCP).

Justification:

FY03 funds upgrade 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 2002

Appropriation/Budget Activity/Serial No: P-1 Item Nomenclature
 Missile Procurement, Army /3/Modification of missiles STINGER BLK I UPGRADES (C21300)

Program Elements for Code B Items: Code: Other Related Program Elements:
C14900, C16000

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	87.9	13.4	21.9	33.0	5.8	1.5	1.0					164.5
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)	87.9	13.4	21.9	33.0	5.8	1.5	1.0					164.5
Initial Spares												
Total Proc Cost	87.9	13.4	21.9	33.0	5.8	1.5	1.0					164.5
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 Legacy transition path of the Transformation Campaign Plan (TCP).

Justification:

FY03 funds upgrade Stinger firing platforms to launch Block I missiles and provide production engineering support to the current Linebacker fleet. 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 2002

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	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Stinger Block I Platform Upgrades (C21300)											
01-87-03-1510	Operational	11.5	1.3	1.4	1.5	1.0	0.0	0.0	0.0	0.0	16.7
Stinger Block I Missile Upgrades (C21300)											
01-87-03-1510	Operational	111.7	27.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	138.9
Stinger Troop Proficiency Trainer											
TBP	Operational	0.0	1.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
Linebacker Training Devices											
TBP	Operational	0.0	3.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	5.8
Totals		123.2	33.0	5.8	1.5	1.0	0.0	0.0	0.0	0.0	164.5

INDIVIDUAL MODIFICATION

Date: February 2002

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 2001				FY 2002				FY 2003				FY 2004				FY 2005				
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	3735	236	236	236	236	132	132	132	131	212	213	213	213	82	82	82	82				
Outputs	3735	236	236	236	236	132	132	132	131	212	213	213	213	82	82	82	82				

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																					6385	
Outputs																						6385

METHOD OF IMPLEMENTATION:	Contractor & In-House	ADMINISTRATIVE LEADTIME:	4 Months	PRODUCTION LEADTIME:	7 Months
Contract Dates:	FY 2002 Jan 02	FY 2003 Jan 03		FY 2004 Jan 04	
Delivery Date:	FY 2002 Aug 02	FY 2003 Aug 03		FY 2004 Aug 04	

INDIVIDUAL MODIFICATION

Date: February 2002

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
Procurement																					
Kit Quantity	4679	10.7	527	1.1	1179	1.2													6385	13.0	
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
Installation of Hardware																					
FY 2000 & Prior Equip -- Kits	3735	0.8	944	0.2															4679	1.0	
FY 2001 Equip -- Kits					527	0.2													527	0.2	
FY 2002 Equip -- Kits							851	1.5											851	1.5	
FY 2003 Equip -- Kits									328	1.0									328	1.0	
FY 2004 Equip -- Kits																					
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 Equip -- Kits																					
TC Equip- Kits																					
Total Installment	3735	0.8	944	0.2	527	0.2	851	1.5	328	1.0		0.0		0.0		0.0		0.0	6385	3.7	
Total Procurement Cost		11.5		1.3		1.4		1.5		1.0		0.0		0.0		0.0		0.0			16.7

INDIVIDUAL MODIFICATION

Date: February 2002

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 night-time 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 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs	5350	400	347	237	237	239	247	261	263	264	176											
Outputs	4510	420	420	400	347	237	237	239	247	261	263	264	176									

	FY 2006				FY 2007				FY 2008				FY 2009				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:	4 Months	PRODUCTION LEADTIME:	18 Months
Contract Dates:	FY 2002	FY 2003		FY 2004	
Delivery Date:	FY 2002	FY 2003		FY 2004	

INDIVIDUAL MODIFICATION

Date: February 2002

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
Procurement																					
Kit Quantity	6970	111.7	1051	27.2																8021	138.9
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
Installation of Hardware																					
FY 2000 & Prior Equip -- Kits																					
FY 2001 -- Kits																					
FY 2002 Equip -- Kits																					
FY 2003 Equip -- Kits																					
FY 2004 Equip -- Kits																					
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 Equip -- Kits																					
TC Equip- Kits																					
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	0.0
Total Procurement Cost		111.7		27.2		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	138.9

INDIVIDUAL MODIFICATION

Date: February 2002

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 field 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 singer 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 to be 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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs						3	5	6	6	18	20	21	21							
Outputs								3	5	6	6	18	20	21	21					

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				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:	2 Months	PRODUCTION LEADTIME:	9 Months
Contract Dates:	FY 2002 Nov 01	FY 2003		FY 2004	
Delivery Date:	FY 2002 Aug 02	FY 2003		FY 2004	

INDIVIDUAL MODIFICATION

Date: February 2002

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
Procurement																					
Kit Quantity			20	1.1	80	2.0													100	3.1	
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
Installation of Hardware																					
FY 2000 & Prior Equip -- Kits																					
FY 2001 -- Kits																					
FY 2002 Equip -- Kits																					
FY 2003 Equip -- Kits																					
FY 2004 Equip -- Kits																					
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 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		1.1		2.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	3.1

INDIVIDUAL MODIFICATION

Date: February 2002

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, USAADASH on 9 Jan 2001, modified training device requirements.

Hardware, software, and installation are included in the total contract price to be 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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals					12	12	12	13	9	9	9	12								
Inputs																				
Outputs							12	12	12	13	9	9	9	12						

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				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:	4 Months	PRODUCTION LEADTIME:	6 Months
Contract Dates:	FY 2002 Jan 02	FY 2003		FY 2004	
Delivery Date:	FY 2002 Jul 02	FY 2003		FY 2004	

INDIVIDUAL MODIFICATION

Date: February 2002

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
Procurement																					
Kit Quantity			52	3.4	36	2.4													88	5.8	
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
Installation of Hardware																					
FY 2000 & Prior Equip -- Kits																					
FY 2001 -- Kits																					
FY 2002 Equip -- Kits																					
FY 2003 Equip -- Kits																					
FY 2004 Equip -- Kits																					
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 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		3.4		2.4		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 2002

Appropriation/Budget Activity/Serial No: P-1 Item Nomenclature
 Missile Procurement, Army /3/Modification of missiles AVENGER MODS (CE8710)

Program Elements for Code B Items: Code: Other Related Program Elements:
C14900, C16000

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	26.6	8.3	4.2	6.8	11.9							57.8
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)	26.6	8.3	4.2	6.8	11.9							57.8
Initial Spares	1.0											1.0
Total Proc Cost	27.6	8.3	4.2	6.8	11.9							58.8
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

AVENGER is a highly mobile, Stinger missile based, Short Range Air Defense system capable of day, night, adverse weather and shoot on-the-move for precision engagement operations. It provides Division and Corps units with low altitude air defense/information dominance against fixed and rotary wing threats, unmanned aerial vehicles and cruise missiles. Mounted on a High Mobility, Multipurpose Wheeled Vehicle, (HMMWV) and manned by a crew of two, the turreted system is equipped with 8 Stinger missiles and a very high rate of fire .50 cal machine gun. A Forward Looking Infrared Receiver (FLIR) provides Avenger with a night fighting capability. Production fire units are now equipped with a Slew-to-Cue capability that permits the system to automatically slew to externally reported radar tracks. By placing targets directly into the gunner's sight, time consuming manual searching is eliminated and detections and engagements are increased. Avenger can be remotely controlled and operated from the safety of a nearby foxhole/building/position. Capability is provided via an eye-safe laser range finder and a Mark XII cryptosecure Identification Friend or Foe (IFF) device. Because of its FLIR, video recording capability and machine gun, the system is routinely employed in Bosnia and Kosovo for nighttime roadblock security, crowd surveillance, and reconnaissance. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Justification:

The FY02 program initiates procures Environmental Control Unit/Prime Power Units (ECU/PPU) and Slew-to-Cues (STCs). The Environmental Control Unit/Prine Power Unit (ECU/PPU) is a subsystem that provides turret air conditioning and provides a separate power source in lieu of vehicle battery power. The ECU/PPU is required to eliminate a turret heat stress safety issue and to lift the conditional fire unit materiel release. The STC is an Army category 2 digitization initiative that increases system performance/kills against all targets, especially low observable threats such as unmanned aerial vehicles and cruise missiles. Also, training capability is added at the National Training Center (NTC).

Exhibit P-40M, Budget Item Justification Sheet

Date: February 2002

Appropriation/Budget Activity/Serial No: Missile Procurement, Army /3/Modification of missiles			P-1 Item Nomenclature AVENGER MODS (CE8710)								
Program Elements for Code B Items:			Code:	Other Related Program Elements: C14900, C16000							

Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total

Slew-To-Cue (STC)											
TBD	Operational	19.7	6.8	4.8	0.0	0.0	0.0	0.0	0.0	0.0	31.3
Environmental Control Unit/Prime Power Unit											
01-88-03-1515	Safety	19.4	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	26.5
Totals		39.1	6.8	11.9	0.0	0.0	0.0	0.0	0.0	0.0	57.8

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Slew-To-Cue (STC) [MOD 1] TBD

MODELS OF SYSTEM AFFECTED:

DESCRIPTION/JUSTIFICATION:

Slew-to-Cue (STC) provides the fire unit with a required automatic, digital capability to rapidly slew to an externally reported radar target, placing it directly into the gunner's sighting field of view. This speeds engagements and increases kills by eliminating time consuming manual searches. The STC capability will be embedded into a new Common Fire Control Computer (CFCC) that replaces the existing obsolete fire control. This upgrade also replaces the existing obsolete Automatic Video Tracker (AVT) by embedding an improved AVT capability into the CFCC. The AVT aids the gunner by providing an automatic tracking capability.

STC/CFCC/AVT: STC is an Army category 2 digitization initiative that increases system performance/kills against all targets, especially low observable threats such as UAVs and cruise missiles. It will initially be fielded as part of the First Digitized Corps, then to the remaining force. CFCC/AVT replacement is required to replace critical obsolete components and improve performance. It will result in 50% improved performance, continued sustainment and lower Operations & Support (O&S) costs. The Avenger Required Operational Capability (ROC) was revised July 16, 1993.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs	31	12	7		8	24	24	24	21													
Outputs	31	8	11			24	24	24	16	13												
	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						151
Outputs																						151

METHOD OF IMPLEMENTATION:	Contractor	ADMINISTRATIVE LEADTIME:	1 Months	PRODUCTION LEADTIME:	11 Months
Contract Dates:	FY 2002 Nov 01	FY 2003		FY 2004	
Delivery Date:	FY 2002 Oct 02	FY 2003		FY 2004	

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Slew-To-Cue (STC) [MOD 1] TBD

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity	111	14.8	40	4.7															151	19.5
Installation Kits																				
Nonrecurring Engineering																				
I&KP/NETT Training		0.2		0.1		0.5														0.8
FAT/PCI		0.4																		0.4
Kit Refurbishment		0.6																		0.6
Engineering Services				0.3		0.4														0.7
Project Management		0.6		0.4		1.2														2.2
Contractor Logistics Support		2.5		1.1		1.8														5.4
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits	31	0.6	19	0.2	61	0.6													111	1.4
FY 2001 -- Kits					27	0.3	13												40	0.3
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	31	0.6	19	0.2	88	0.9	13	0.0		0.0		0.0		0.0		0.0		0.0	151	1.7
Total Procurement Cost		19.7		6.8		4.8		0.0		0.0		0.0		0.0		0.0		0.0		31.3

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Environmental Control Unit/Prime Power Unit [MOD 2] 01-88-03-1515

MODELS OF SYSTEM AFFECTED:

DESCRIPTION/JUSTIFICATION:

The Environmental Control Unit/Prime Power Unit (ECU/PPU) is a required subsystem that provides turret air conditioning and provides a separate power source in lieu of vehicle battery power. The ECU/PPU is required to eliminate a turret heat stress safety issue and to lift the conditional fire unit materiel release. ECU/PPU removes restrictions on operational use of Avenger in hot climates. This modification fulfills the user requirement for a separate, reliable power source and for heat and air conditioning to fully operate in a broad spectrum of combat environments (i.e., desert). The Avenger Required Operational Capability (ROC) was revised July 16, 1993.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	370									12	36	20								
Outputs	370									12	36	20								

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		438
Outputs																		438

METHOD OF IMPLEMENTATION:	Contractor	ADMINISTRATIVE LEADTIME:	4 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2002 Feb 02	FY 2003		FY 2004	
Delivery Date:	FY 2002 Feb 03	FY 2003		FY 2004	

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Environmental Control Unit/Prime Power Unit [MOD 2] 01-88-03-1515

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity	370	15.1			68	3.4													438	18.5
Installation Kits																				
Nonrecurring Engineering																				
Engineering Sevices						0.2														0.2
Net Training		0.5				0.1														0.6
Program Management						2.4														2.4
Contractor Logistics Support		1.1				0.5														1.6
Production Verification Test																				
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits	370	2.7																	370	2.7
FY 2001 -- Kits																				
FY 2002 Equip -- Kits					0.5		68												68	0.5
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	370	2.7		0.0		0.5	68	0.0		0.0		0.0		0.0		0.0		0.0	438	3.2
Total Procurement Cost		19.4		0.0		7.1		0.0		0.0		0.0		0.0		0.0		0.0		26.5

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2002

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

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	612.5	63.0	71.8	64.0	60.8	60.0	44.7	31.8	32.4	32.5		1073.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	612.5	63.0	71.8	64.0	60.8	60.0	44.7	31.8	32.4	32.5		1073.3
Initial Spares	29.6	5.4										34.9
Total Proc Cost	642.0	68.4	71.8	64.0	60.8	60.0	44.7	31.8	32.4	32.5		1108.3
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The Tube-launched, Optically tracked, Wire command-link guided (TOW) Improved Target Acquisition System (ITAS) is a critical system to the interim forces, selected as the off-the-shelf anti-tank system for the Interim Armored Vehicle's (IAV) Anti-Tank Guided Missile variant and as the surrogate for the Mobile Gun System (MGS) variant until a MGS variant is developed. ITAS is an upgrade to the light infantry's TOW 2 weapon system and provides a capability that will defeat threat armored vehicle at extended ranges in all expected battlefield conditions. The ITAS meets the immediate needs of the National Command Authority and the CINCs. ITAS provides an operational warfighting capability now to ensure combat overmatch and dominance at every point on 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. This system supports the Legacy transition path of the Transformation Campaign Plan.

Justification:

FY03 procures the TOW ITAS and its associated training devices necessary to conduct unit set fielding for the Army's Light Force. TOW ITAS is an extremely lethal and survivable anti-armor system that also provides significant reconnaissance, surveillance, and target acquisition (RSTA) capabilities. ITAS provides the National Command Authority and CINCs with a responsive, agile and lethal anti-armor option and capability for regional engagement, peacekeeping, crisis response, and sustained land force operations.

Exhibit P-40M, Budget Item Justification Sheet

Date: February 2002

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	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Missile Conversion (HEAT TO PRACTICE)											
MC-1-82-03-3020	SAFETY	37.2	0.0	0.0	5.2	5.6	2.4	2.4	2.4	55.8	111.0
MISSILE MODIFICATION (MOIC)											
MC-1-82-03-3021	SAFETY	14.0	0.0	0.0	0.3	0.7	0.7	0.7	0.7	7.0	24.1
ITAS (IMPROVED TARGET ACQUISITION SYSTEM)											
MC-1-89-03-3028	OPERATIONAL	226.9	63.9	60.8	54.5	38.4	28.7	29.3	29.4	741.6	1273.5
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		284.9	63.9	60.8	60.0	44.7	31.8	32.4	32.5	804.4	1415.4

INDIVIDUAL MODIFICATION

Date: February 2002

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 maraging steel was incorporated into a new design as a result of launch motor failures.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	63213												1074	1074	1074	1074	1250	1250	360	
Outputs	63213													1429	1429	1430	1250	1250	360	

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	789				1250	298			1204				1250	1250	1250	428	20960	99048
Outputs	789				1250	298			1204				1250	1250	1250	428	20960	99040

METHOD OF IMPLEMENTATION:

Contract Dates:	FY 2002	ADMINISTRATIVE LEADTIME:	12 Months	PRODUCTION LEADTIME:	12 Months
Delivery Date:	FY 2002	FY 2003	Dec 02	FY 2004	Dec 03
		FY 2003	Dec 03	FY 2004	Dec 04

INDIVIDUAL MODIFICATION

Date: February 2002

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
Procurement																					
Kit Quantity																					
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment	63213	22.3					4288	5.2	2860	3.5	789	1.0	1548	2.0	1204	1.6	27949	40.7	101851	76.3	
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
Installation of Hardware																					
FY 2000 & Prior Equip -- Kits	63213	14.9																		63213	14.9
FY 2001 -- Kits																					
FY 2002 Equip -- Kits																					
FY 2003 Equip -- Kits								4288	2.1											4288	2.1
FY 2004 Equip -- Kits										2860	1.4									2860	1.4
FY 2005 Equip -- Kits												789	0.4							789	0.4
FY 2006 Equip -- Kits														1548	0.8					1548	0.8
FY 2007 Equip -- Kits																	1204	0.6		1204	0.6
TC Equip- Kits																	25138	14.5		25138	14.5
Total Installment	63213	14.9		0.0		0.0		0.0	4288	2.1	2860	1.4	789	0.4	1548	0.8	26342	15.1	99040	34.7	
Total Procurement Cost		37.2		0.0		0.0		5.2		5.6		2.4		2.4		2.4		55.8			111.0

INDIVIDUAL MODIFICATION

Date: February 2002

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 to the interim forces, selected as the off-the-shelf anti-tank system for the Interim Armored Vehicle's Anti-Tank Guided Missile variant and as the surrogate for the Mobile Gun System (MGS) variant until a MGS variant is developed. ITAS is an upgrade to the light infantry's TOW 2 weapon system and provides a capability that will defeat threat armored vehicle at extended ranges in all expected battlefield conditions. The ITAS meets the immediate needs of the National Command Authority and the CINCs. ITAS provides an operational warfighting capability now to ensure combat overmatch and dominance at every point on the spectrum of operations. TOW ITAS is an extremely lethal and survivable anti-armor system that also provides significant reconnaissance, surveillance, and target acquisition (RSTA) capabilities. ITAS provides the National Command Authority and CINCs 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 2001				FY 2002				FY 2003				FY 2004				FY 2005				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Totals																					
Inputs	85		36	37	28	23	15	29	56	62	49	31	27	28	27	25	22	22	21	16	6
Outputs	77			40	32	40	10	20	5	40	20	25	20	40	60	40	20	32		20	28

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Inputs	6	6	1	3	3	3	1	3	3	3	3	1	3	3	3	6	18	963	1674
Outputs	32	48	10													32		983	1674

METHOD OF IMPLEMENTATION:

Contract Dates:

FY 2002 Dec 01

ADMINISTRATIVE LEADTIME:

10 Months

FY 2003 Dec 02

PRODUCTION LEADTIME:

18 Months

FY 2004 Dec 03

Delivery Date:

FY 2002 Jun 03

FY 2003 Jun 04

FY 2004 Jun 05

INDIVIDUAL MODIFICATION

Date: February 2002

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity	323		119		109		86		20		10		10		10		987		1674	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		208.8		60.8		58.0		47.7		32.5		22.8		23.0		25.4		679.2		1158.2
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data		1.2		0.1		0.1		0.1		0.1		0.1		0.1		0.1		1.1		3.0
Training Equipment		14.1		2.5		2.2		6.1		5.1		5.3		5.6		3.5		54.0		98.4
Support Equipment																				
Other		1.0		0.4		0.4		0.4		0.4		0.4		0.4		0.4		5.0		8.8
ICS/CLS Contractor Support		1.6																		1.6
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits	77	0.2	72	0.1	75	0.1	99	0.2											323	0.6
FY 2001 -- Kits							6	0.0	113	0.2									119	0.2
FY 2002 Equip -- Kits									47	0.1	62	0.1							109	0.2
FY 2003 Equip -- Kits											18	0.0	68	0.2					86	0.2
FY 2004 Equip -- Kits													20	0.0					20	
FY 2005 Equip -- Kits													2	0.0			8	0.0	10	
FY 2006 Equip -- Kits																	10	0.0	10	
FY 2007 Equip -- Kits																	10	0.0	10	
TC Equip- Kits																	987	2.3	987	2.3
Total Installment	77	0.2	72	0.1	75	0.1	105	0.2	160	0.3	80	0.1	90	0.2		0.0	1015	2.3	1674	3.5
Total Procurement Cost		226.9		63.9		60.8		54.5		38.4		28.7		29.3		29.4		741.6		1273.5

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: CAPS (COUNTER ACTIVE PROTECTION SYSTEM) [MOD 4] MC-1-98-03-3030

MODELS OF SYSTEM AFFECTED: TOW Missile System (C59300)

DESCRIPTION/JUSTIFICATION:

The Counter Active Protection Systems (CAPS)modification program provides a critical modification in support of the Legacy Force. Its purpose is to procure and apply CAPS modification kits to a contingency stock of TOW 2B missiles. The CAPS modification will provide the TOW 2B missile with the capability to counter the Active Protection System (APS) currently being deployed on threat armor systems. The modification kits have been applied to 1,000 TOW 2B missiles.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Qualification Flight Testing Completed: 2d Qtr, FY00
 Production Contract Award Date: 24 May 00

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs				1000																
Outputs				1000																

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		1000
Outputs																		1000

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2002

Delivery Date: FY 2002

ADMINISTRATIVE LEADTIME:

FY 2003

FY 2003

8 Months

PRODUCTION LEADTIME:

FY 2004

FY 2004

9 Months

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): CAPS (COUNTER ACTIVE PROTECTION SYSTEM) [MOD 4] MC-1-98-03-3030

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
Procurement																					
Kit Quantity	1000																			1000	
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment		6.8																			6.8
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
Installation of Hardware																					
FY 2000 & Prior Equip -- Kits																					
FY 2001 -- Kits																					
FY 2002 Equip -- Kits																					
FY 2003 Equip -- Kits																					
FY 2004 Equip -- Kits																					
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 Equip -- Kits																					
TC Equip- Kits																					
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	0.0
Total Procurement Cost		6.8		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	6.8

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2002

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:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	237.4	2.8	5.8	10.0	13.5	31.7	26.8	20.2	15.0	10.1	142.9	516.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	237.4	2.8	5.8	10.0	13.5	31.7	26.8	20.2	15.0	10.1	142.9	516.3
Initial Spares	14.6	0.0	0.0	0.8	0.9	5.6	1.3	5.9	6.1	4.4	42.4	82.0
Total Proc Cost	252.0	2.8	5.8	10.8	14.4	37.4	28.1	26.1	21.1	14.5	185.3	598.2
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

Modification kits are procured for previously manufactured Multiple Launch Rocket System (MLRS) launchers and associated training and ground support equipment. Modifications are vital to the Counterattack Corps and are projected to decrease Operations & Support (O&S) and reduce logistics impacts. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Justification:

The FY 03 program funding supports Transmission Electronic Controller upgrades, Interim Improved Position Determining System (IPDS), Launcher Contractor Logistics Support (CLS), Selective Availability Anti-Spoofing Module (SAASM), Joint Technical Architecture-Army (JTA-A), Improved Weapons Interface Unit (IWIU), Suspension Lockout Improvement, Obsolescence Mitigation/Engineering Change Proposal Reliability Integration, and Rocket Pod Hold Down and Jury Strut Inhibit Switch.

Exhibit P-40M, Budget Item Justification Sheet

Date:

February 2002

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	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Inactive Mods											
Prior Year MCs	Oper/Safety/Reliab	186.3	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	188.2
Transmission Electronic Controller (TEC)											
1-94-03-0522	Operational	34.7	0.5	0.0	0.2	0.0	0.3	0.0	0.0	0.0	35.7
Interim Improved Position Determining System Lchr											
1-95-03-0528	Operational	22.0	0.5	1.4	1.4	1.4	0.0	0.0	0.0	0.0	26.7
Selective Availability Anti-Spoofing Module											
1-96-03-0534	Operational	0.0	0.0	0.0	10.0	0.6	4.9	1.2	0.0	27.3	44.0
Rocket Pod Hold Down and Jury Strut Inhibit Switch											
1-97-03-0535	Reliability	0.0	0.0	0.0	3.1	0.8	0.2	0.0	0.0	0.0	4.1
Joint Technical Architecture-Army (JTA-A)											
1-97-03-0537	Operational	0.0	0.0	10.8	2.8	3.2	2.0	0.6	0.0	0.0	19.4
Engine/Transmission Diagnostic											
1-98-03-0542	Operational	0.0	0.0	0.0	0.0	2.6	4.9	2.0	0.0	0.0	9.5
Weapons Interface Unit Modification											
1-99-03-0546	Operational	0.0	0.0	0.0	11.1	15.6	5.2	0.2	0.0	0.0	32.1
Joint Tactical Radio System (JTRS)											
1-00-03-0549	Operational	0.0	0.0	0.0	0.0	0.3	0.8	0.8	0.9	1.4	4.2
Obsolescence Mitigation/ECP Reliability Intg											
1-99-03-0549	Operational	3.0	7.0	1.3	3.1	2.2	1.8	1.9	1.7	18.6	40.6

Exhibit P-40M, Budget Item Justification Sheet

Date:

February 2002

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	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Streamlined Technology Enhancement Prog (STEP)											
1-98-03-0541	Operational	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals		246.0	9.9	13.5	31.7	26.7	20.1	6.7	2.6	47.3	404.5

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Transmission Electronic Controller (TEC) [MOD 2] 1-94-03-0522

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

DESCRIPTION/JUSTIFICATION:

The MLRS M993 Carrier / Vehicle Engine Drive Transmission Program has become a three phased upgrade program through the addition of the Transmission Electronic Controller (TEC). In FY93, the TEC was incorporated into the production of the M993 Carrier because it offered benefits to the system with increased power availability, ability to tow in neutral, decreased maintenance, improvements in operation on inclined grades, shift synchronization, improved fuel consumption, better performance in cold temperatures, and increased mobility in restricted areas. To achieve commonality this engineering change made it necessary to retrofit the non-production vehicles with TEC from FY95-FY97 - this program is known as the basic TEC modification program. The primary additions to this MOD are adding an Electronics Assembly (EA) to the carrier shift tower and replacing the mechanical controller with an Interface Assembly (IA), a brake sensor and other internal parts added to the transmission. This change with spares accounted for the modification of 653 transmissions. Later, the need for additional changes to the EA, IA and the addition of reinforced internal parts to the transmission were required. A cost/benefit analysis determined an immediate need for change, but indicated that a "total transmission" tear down program could not be executed fast enough to help unit Operational & Sustainment (O&S) costs. This urgent MLRS program to upgrade the EA and IA is known as TEC II program and accounted for the modification of 939 EAs and IAs to launchers and spares and has been completed. The remaining portion of this modification is to procure reinforced internal parts for all 327 transmissions undergoing the M270A1 Carrier Remanufacture. This will reduce O&S cost and standardize transmission configurations, thus reducing logistics support cost.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Development complete - incorporated into Engineering Release Record.

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Totals																					
Inputs	1592	146				70								66							
Outputs	1509	50	50	39	18	10	10	10	10	12	12	12	12	12	12	12	12	12	12	12	12

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs		100																			1974
Outputs	12	12	10	10	10	10	10	10	10	10	10	10									1974

METHOD OF IMPLEMENTATION:	Contractor/Depot	ADMINISTRATIVE LEADTIME:	6 Months	PRODUCTION LEADTIME:	5 Months
Contract Dates:	FY 2002 Jan 02	FY 2003 Jan 03		FY 2004 Jan 04	
Delivery Date:	FY 2002 Jun 02	FY 2003 Jun 03		FY 2004 Jun 04	

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Transmission Electronic Controller (TEC) [MOD 2] 1-94-03-0522

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity	1738	26.7	70	0.5			66	0.2			100	0.3							1974	27.7
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits	1509	8.0	157		40		32												1738	8.0
FY 2001 -- Kits							16		48		6								70	
FY 2002 Equip -- Kits											42		24						66	
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits													20		40		40		100	
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	1509	8.0	157	0.0	40	0.0	48	0.0	48	0.0	48	0.0	44	0.0	40	0.0	40	0.0	1974	8.0
Total Procurement Cost		34.7		0.5		0.0		0.2		0.0		0.3		0.0		0.0		0.0		35.7

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Interim Improved Position Determining System Lchr [MOD 3] 1-95-03-0528

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

DESCRIPTION/JUSTIFICATION:

A special interim launcher configuration is required to allow the current M270 platform to fire all of its existing fielded M270 Family of Munitions and to incorporate a new requirement to fire the Army Tactical Missile System (ATACMS) Block IA. The Block IA missile was fielded in 1QFY98 and required Global Positioning System (GPS) interface at the time of launch. This modification incorporated the Interim Launcher Improved Position Determining System (IPDS) Line Replaceable Unit, a GPS antenna, associated cabling with armor protection, hoist bumper pads, a modification to the existing M68 Missile/Launch Pod Assembly trainer and sufficient Random Access Memory, with the Non-Volatile Memory Module to support the software loaded into the Improved Electronic Unit. Installation was included in the cost of the modification kit. Funding for FY00 through FY04 provides interim contractor support of IPDS Launchers. This effort is necessary to support the Counterattack Corps until an adequate quantity of M270A1s are fielded.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Modification has been integrated into the launchers as an interim program in support of the ATACMS Block IA.

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	29																			
Outputs	29																			

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		29
Outputs																		29

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 0 Months
 Contract Dates: FY 2002 Jan 02 FY 2003 Jan 03 FY 2004 Jan 04
 Delivery Date: FY 2002 FY 2003 FY 2004

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Interim Improved Position Determining System Lchr [MOD 3] 1-95-03-0528

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	29	18.0																	29	18.0
Installation Kits																				
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support		4.0		0.5		1.4		1.4		1.4										8.7
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 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		22.0		0.5		1.4		1.4		1.4		0.0		0.0		0.0		0.0		26.7

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Selective Availability Anti-Spoofing Module [MOD 4] 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). This modification will include SAASM installation, addition of an updated computer processor and revision of the backplane. These changes will be incorporated in the Interim Launcher Improved Position Determining System (IPDS) and the IFCS Position Navigational Unit (PNU). Future GPS enhancements for authorized DoD usage are required for NSA compliance in the FY08 time frame. This program is referred to as "military code" or "m-code." This modification is critical for future combat operations and weapon system accuracy in support of the Counterattack Corps.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The changes to the PNU have been cut into LRIP 5 M270A1 contract.

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs															15	30	30	30	30	30
Outputs															15	30	30	30	30	30

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																	Complete	165
Outputs	30																	165

METHOD OF IMPLEMENTATION:	Contractor/Depot	ADMINISTRATIVE LEADTIME:	3 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2002	FY 2003	Jan 03	FY 2004	
Delivery Date:	FY 2002	FY 2003		FY 2004	Apr 2004

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Selective Availability Anti-Spoofing Module [MOD 4] 1-96-03-0534

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity							165	10.0											165	10.0
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																	27.3			27.3
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits									15	0.6	120	4.9	30	1.2					165	6.7
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0	15	0.6	120	4.9	30	1.2		0.0		0.0	165	6.7
Total Procurement Cost		0.0		0.0		0.0		10.0		0.6		4.9		1.2		0.0		27.3		44.0

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Rocket Pod Hold Down and Jury Strut Inhibit Switch [MOD 5] 1-97-03-0535

MODELS OF SYSTEM AFFECTED:

DESCRIPTION/JUSTIFICATION:

This improvement incorporates two self adjusting switch assemblies and five cables which prevent the inadvertent engagement of the Launcher Loader Module while the jury safety struts are in position. In addition, it prevents the launcher from firing when the Rocket Pod Hold Down latches are not secured. This modification will prevent potential damage to the cage assembly, turret assembly, base assembly and jury strut components from firing when the Rocket Pod Hold Down latches are not secured. This funding is required to perform modifications on 315 M270 Launchers remaining in the field. This modification will reduce the possibility of extensive depot repairs.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

This Engineering Change Proposal (ECP) was incorporated into production in FY99. This improvement is contained within the M270A1 Improved Launcher Mechanical System kit.

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs												78	79	79	79					
Outputs												54	54	54	54	54	45			

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																	Complete	315
Outputs																	Complete	315

METHOD OF IMPLEMENTATION:	Contractor/Depot	ADMINISTRATIVE LEADTIME:	3 Months	PRODUCTION LEADTIME:	6 Months
Contract Dates:	FY 2002	FY 2003	Jan 03	FY 2004	
Delivery Date:	FY 2002	FY 2003	Oct 03	FY 2004	

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Rocket Pod Hold Down and Jury Strut Inhibit Switch [MOD 5] 1-97-03-0535

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
Procurement																					
Kit Quantity							315	2.9											315	2.9	
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
Installation of Hardware																					
FY 2000 & Prior Equip -- Kits																					
FY 2001 -- Kits																					
FY 2002 Equip -- Kits																					
FY 2003 Equip -- Kits							54	0.2	216	0.8	45	0.2							315	1.2	
FY 2004 Equip -- Kits																					
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 Equip -- Kits																					
TC Equip- Kits																					
Total Installment		0.0		0.0		0.0	54	0.2	216	0.8	45	0.2		0.0		0.0		0.0	315	1.2	
Total Procurement Cost		0.0		0.0		0.0		3.1		0.8		0.2		0.0		0.0		0.0			4.1

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Joint Technical Architecture-Army (JTA-A) [MOD 6] 1-97-03-0537

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

DESCRIPTION/JUSTIFICATION:

JTA-A is a Department of the Army mandated program that standardizes communication protocols and message formats for data transport among the Department of Defense services. The M270A1 Low Cost Fire Control Panel (LCFCP) provides the M270A1 Launcher with soldier-computer interface, external communication interfaces and internal system interfaces. It also provides a standard for information security as well as a standard for the Department of the Army Force XXI directed situational awareness enhancements to the soldier, ultimately reducing the chances of fratricide on the battlefield. This LCFCP is a Tactical Display set that consists of the following three components: Tactical Processor Unit (TPU), Gunner's Display Unit (GDU), and the Mass Storage Unit (MSU). This effort includes procurement of 100 LCFCP Kits in FY02 and this hardware will be installed in FY03 and FY04. An additional special kit will be required in FY04 and FY05 to integrate the FORCE XXI Battle Command Brigade & Below (FBCB2). This hardware will be procured in FY04 and FY05 and installed in FY05 and FY06. Total FBCB2 Kits to be procured is 262. This modification is critical for future operations within the Counterattack Corps.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The LCFCP is a requirement for the M270A1 to be compliant with First Digitized Corps (FDC) by the end of FY05. The planned production cut-in of the LCFCP will be in the M270A1 Low Rate Initial Production (LRIP) IV FY01 contract, with procurement of retrofit LCFCPs beginning in FY02.

Installation Schedule:

	Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Totals																						
Inputs								18	18	18	18	18	10			36	36	36	36	36		
Outputs								16	19	19	19	19	8					19	38	38		

	FY 2006				FY 2007				FY 2008				FY 2009				To	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs	36	36	10															Complete				362
Outputs	42	42	42	41																		362

METHOD OF IMPLEMENTATION:	Contractor	ADMINISTRATIVE LEADTIME:	3 Months	PRODUCTION LEADTIME:	3 Months
Contract Dates:	FY 2002 Feb 02	FY 2003		FY 2004 Jan 04	
Delivery Date:	FY 2002 Aug 02	FY 2003		FY 2004 Jul 04	

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Joint Technical Architecture-Army (JTA-A) [MOD 6] 1-97-03-0537

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity					100	10.8			144	2.1	118	1.7							362	14.6
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits							73	2.8	27	1.1									100	3.9
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits											95	0.3	49	0.2					144	0.5
FY 2005 Equip -- Kits													118	0.4					118	0.4
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0	73	2.8	27	1.1	95	0.3	167	0.6		0.0		0.0	362	4.8
Total Procurement Cost		0.0		0.0		10.8		2.8		3.2		2.0		0.6		0.0		0.0		19.4

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Weapons Interface Unit Modification [MOD 8] 1-99-03-0546

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

DESCRIPTION/JUSTIFICATION:

The development of the Guided MLRS Rocket has generated a requirement for a new circuit card to be added to the Improved Weapons Interface Unit (IWIU). This IWIU is one of the new Line Replaceable Units (LRU), which is a component of the Improved Fire Control System (IFCS) to be incorporated into the M270A1 Launcher. This circuit card, known as the Ethernet Hub card, and a modified W20 Cable will contain signal distribution functions, which will be incorporated into the IWIU instead of each individual rocket. These changes are planned for incorporation into 206 Weapons Interface Units. Procurement is required to retrofit the WIU on Launchers produced in LRIP 1-5 and associated Spares. This modification is essential to standardize configurations and will eliminate modification costs to missiles and rockets.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals												7	15	15	15	30	30	30	30	30
Inputs																				
Outputs														19	31		26	25	25	25

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	4																Complete	206
Outputs	21	19	15															206

METHOD OF IMPLEMENTATION:	Contractor/Depot	ADMINISTRATIVE LEADTIME:	3 Months	PRODUCTION LEADTIME:	6 Months
Contract Dates:	FY 2002	FY 2003	Jan 03	FY 2004	Jan 04
Delivery Date:	FY 2002	FY 2003	Sep 03	FY 2004	Sep 04

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Weapons Interface Unit Modification [MOD 8] 1-99-03-0546

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																			
Procurement																				
Kit Quantity							60	11.1	112	15.4	34	4.8							206	31.3
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits								50	0.2	10	0.1								60	0.3
FY 2004 Equip -- Kits										91	0.3	21	0.1						112	0.4
FY 2005 Equip -- Kits												34	0.1						34	0.1
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0	50	0.2	101	0.4	55	0.2		0.0		0.0	206	0.8
Total Procurement Cost		0.0		0.0		0.0		11.1	15.6		5.2		0.2		0.0		0.0			32.1

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE: Obsolescence Mitigation/ECP Reliability Intg [MOD 10] 1-99-03-Obsc

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 procurement of kits and funding was required for installation in FY01 to facilitate the preparation of the M270 Launcher and Carrier into a M270A1 "ready" configuration. Additional hardware requirements are expected due to increased digitization equipment added to the cab. These changes are expected to include such items as an Environmental Control Unit (C), Auxiliary Power Unit (APU), 600 horsepower engine, improved generators, Global Positioning System (GPS) anti-jam hardware, and a cordless Vehicular Intercommunication System (VIS). 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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs																				
Outputs																				

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		0

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2002

Delivery Date: FY 2002

ADMINISTRATIVE LEADTIME:

FY 2003

FY 2003

0 Months

PRODUCTION LEADTIME:

FY 2004

FY 2004

0 Months

INDIVIDUAL MODIFICATION

Date: February 2002

MODIFICATION TITLE (Cont): Obsolescence Mitigation/ECP Reliability Intg [MOD 10] 1-99-03-Obsc

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		3.0		7.0		1.3		3.1		2.2		1.8		1.9		1.7		18.6		40.6
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 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		3.0		7.0		1.3		3.1		2.2		1.8		1.9		1.7		18.6		40.6

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	2718.9	19.5	11.2	20.6	15.2	55.9	51.5	34.4	36.5	28.4	239.7	3231.8
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)	2718.9	19.5	11.2	20.6	15.2	55.9	51.5	34.4	36.5	28.4	239.7	3231.8
Initial Spares											139.3	139.3
Total Proc Cost	2718.9	19.5	11.2	20.6	15.2	55.9	51.5	34.4	36.5	28.4	379.0	3371.1
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 03 funds will procure Javelin, MLRS, Patriot Mods and MLRS Mods initial spares.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	363.5	2.5	2.4	2.4	3.3	3.4	3.5	3.6	3.8	3.9		392.3
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)	363.5	2.5	2.4	2.4	3.3	3.4	3.5	3.6	3.8	3.9		392.3
Initial Spares	1.3											1.3
Total Proc Cost	364.8	2.5	2.4	2.4	3.3	3.4	3.5	3.6	3.8	3.9		393.6
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 STRAC required gun system live fire and Precision Gunnery System (PGS) training and scoring. These systems support the Legacy to Objective transition path of the Transformation Campaign Plan(TCP).

Justification:

FY03 funds the 1/5th scale Remotely Piloted Vehicle Target(RPVT) and ancillary hardware consisting of scoring devices and ground support equipment in support of gun and Precision Gunnery System (PGS) training. These RPVTs support the Avenger, Bradley Stinger Fighting Vehicle (BSFV) and Linebacker fielded systems. 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 approved training doctrine.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	36.8	0.9	1.0	1.0	1.0	0.9	0.9	1.0	1.0	1.1		45.6
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)	36.8	0.9	1.0	1.0	1.0	0.9	0.9	1.0	1.0	1.1		45.6
Initial Spares												
Total Proc Cost	36.8	0.9	1.0	1.0	1.0	0.9	0.9	1.0	1.0	1.1		45.6
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:

FY03 funding is required for the procurement of tools and shop sets to support the following systems:

- MLRS
- TOW
- AVENGER

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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					450			483			429		
Assembly					277			291			257		
TOW													
Components					20			25			21		
Assembly					12			13			11		
AVENGER													
Components					116			125			109		
Assembly					86			95			80		
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					961			1032			907		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	4.9	1.6	1.4	1.3	2.3	4.9	7.1	12.9	17.2	20.5		74.0
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)	4.9	1.6	1.4	1.3	2.3	4.9	7.1	12.9	17.2	20.5		74.0
Initial Spares												
Total Proc Cost	4.9	1.6	1.4	1.3	2.3	4.9	7.1	12.9	17.2	20.5		74.0
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 will allow for continued demilitarization of some Basic TOW, Shillelagh and Stinger missiles using Open Burn/Open Detonation methods, and allow for a modest rate of demilitarization of TOW missiles using R3 methods, and focus on organic base demil capabilities. MIPA funding will be used for fabrication and installation of R3 production tooling in support of missile demilitarization. The missile and missile components stockpile is increasing due to inventory aging, Army modernization efforts, and serviceability issues caused by increased deployments. The stockpile today is over 60,000 missiles and continues to expand peaking in FY 06 and growing to over 600,000 by FY 14. Currently, the Army relies on (OB/OD) destruction methods to demilitarize tactical missiles. However, due to Executive Order 13101 "Greening the Government", an aggressive demilitarization program that is cost effective with minimal environmental impact utilizing Resource Recovery and Recycling (R3) methods is required to move from OB/OD.

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 2002		
MSLS Cost Elements	ID CD	FY 00			FY 01			FY 02			FY 03		
		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					599	3335	1	975	4085	1	361	2318	1
Nike-Hercules													
Tow R 3 (MRC Support)								1000					
Tow					151	2700	1				4340	6500	1
R 3 Acq.Study													
Tow R3					422	800	1						
Hawk Motors					64	69	1	176	256	1	110	250	1
Tow/MLRS					13	30	1						
Stinger					52	167	1	54	163	1	44	200	1
Patriot					28	46	1				18	40	1
Dragon								85	201	1	22	200	1
SS-11								52	93	1			
Total					1329			2342			4895		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2002

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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	596.1	3.1	3.2	3.1	3.4	3.4	3.5	3.5	3.8	3.9		626.9
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)	596.1	3.1	3.2	3.1	3.4	3.4	3.5	3.5	3.8	3.9		626.9
Initial Spares												
Total Proc Cost	596.1	3.1	3.2	3.1	3.4	3.4	3.5	3.5	3.8	3.9		626.9
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:

FY03 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 2002

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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	297.6	3.1	3.2	3.1	3.4	3.4	3.5	3.5	3.8	3.9		328.5
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)	297.6	3.1	3.2	3.1	3.4	3.4	3.5	3.5	3.8	3.9		328.5
Initial Spares												
Total Proc Cost	297.6	3.1	3.2	3.1	3.4	3.4	3.5	3.5	3.8	3.9		328.5
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 of production capability for missile end items.

This program supports all transition paths of the Army Transformation Campaign Plan (TCP).

Justification:

ATEC: At RTTC, FY03 funds will procure replacement of aging flight test instrumentation at the small missile production test range with automated, remotely controlled and configured devices (matrix switching, data networking and programmable instrumentation control to handle high bandwidth data and provide remote programming and central control of all instrumentation and data handling from a single computer work station) and remotely programmable signal conditioning equipment for shock and vibration testing.

At WSMR, FY03 funding will provide for replacement sensors, telemetry equipment, time, space and position instrumentation, radio frequency measurement instruments and data processing equipment used for pre-launch missile systems measurements. Funds will also provide for replacement of old shock and vibration data collection, analysis, and test equipment (accelerometers, amplifier systems, data lines, pyroshock test equipment, power amplifiers, electrodynamic shaker systems, etc.) with new, reliable, efficient test equipment and replacement laboratory equipment for testing and certification of missile flight termination systems and procurement of remote missile disassembly and reassembly equipment for failure analysis of missile components. 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 2002

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: FY03 funds will be used to construct three earth covered storage magazines for the receipt and storage of incoming explosive material. To provide for the storage and shipment of outbound completed product, this effort will also construct a connecting ramp with truck dock. The existing ramps will be demolished and removed. An intrusion detection system (IDS) will be installed in the service magazines to allow for the storage of Category 11 or classified material. Drainage around existing building will also be upgraded. Iowa AAP currently has inadequate explosive storage on Line 4B for the production of multiple warhead items. The ramp and service magazine to be demolished are not large enough to allow use of material handling equipment (MHE). Since warheads are generally shipped monthly to the missile production facility, this additional storage eliminates the double handling of sending the warheads to an interim off line magazine. Production items supported by this project are Javelin, Longbow, Tube Launched, Optically-Tracked, Wire-Guided Missile (TOW), and Brilliant Anti-Armor Submunition (BAT) as well as future warhead programs such as Common Missile.