Index for MISSILE PROCUREMENT, ARMY

Appropriation: **MISSILES**

Activity: 2. **OTHER MISSILES**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	(THOUSANDS OF DOLLARS) FY 98 QTY	FY 98 COST	FY 99 QTY	FY 99 COST	FY 00 QTY	FY 00 COST	FY 01 QTY	FY 01 COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	****SURFACE-TO-AIR MISSILE SYSTEM****										
1	EFOG-M (ENHANCED FIBER OPTIC GUIDED MISSILE) (H03100)				55						
2	AVENGER SYSTEM SUMMARY (C14900) *		2,250,000			15	34,884	15	33,750	11	30,111
					--------		--------		--------		--------
	SUB-ACTIVITY TOTAL				**55**		**34,884**		**33,750**		**30,111**
	****AIR-TO-SURFACE MISSILE SYSTEM****										
3	HELLFIRE SYS SUMMARY (C70000)	A	140,825	1,100	240,645	2,000	315,181	2,200	309,816	2,200	300,444
	LESS: ADVANCE PROCURMENT (PY)								-13,344		-12,114
					-------		-------		-------		-------
					240,645		315,181		296,472		288,330
4	HELLFIRE SYS SUMMARY (C70000)						44,275				
	ADVANCE PROCURMENT (CY)										
					--------		--------		--------		--------
	SUB-ACTIVITY TOTAL				**240,645**		**359,456**		**296,472**		**288,330**
	****ANTI-TANK/ASSAULT MISSILE SYSTEM****										
5	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)		114,719	894	147,312	3,569	364,353	2,682	307,677	3,973	404,519
	LESS: ADVANCE PROCURMENT (PY)				-9,104		-25,613				-32,271
					-------		-------		-------		-------
					138,208		338,740		307,677		372,248
6	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)								98,406		
	ADVANCE PROCURMENT (CY)										
7	TOW 2 SYSTEM SUMMARY (C59300)	A			732						
	* Quantities updated since publication of the DoD P-1 Exhibit										

Appropriation: **MISSILES**

Activity: 2. **OTHER MISSILES**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	(THOUSANDS OF DOLLARS) FY 98 QTY	FY 98 COST	FY 99 QTY	FY 99 COST	FY 00 QTY	FY 00 COST	FY 01 QTY	FY 01 COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
8	MLRS ROCKET (C65400)			624	19,197				3,338		9,511
9	MLRS LAUNCHER SYSTEMS (C66400)		2,779,447	21	123,708	24	120,143	47	130,634	90	198,762
	LESS: ADVANCE PROCUREMENT (PY)										-15,993
					123,708		120,143		130,634		182,769
10	MLRS LAUNCHER SYSTEMS (C66400) ADVANCE PROCUREMENT (CY)								15,993		39,442
11	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)	B	869,264	109	89,810	96	87,800	110	95,619	100	90,777
12	ATACMS/BAT (CA6101)	A	1,258,803			30	48,924	61	76,787	77	91,844
13	BAT (CA6100)	A	176,423			420	100,099	846	149,254	1,028	136,391
14	MULTI PURPOSE INDV MUN (C09100)										1,847
15	MULTI PURPOSE INDV MUN (C09100) ADVANCE PROCUREMENT (CY)										3,837
	SUB-ACTIVITY TOTAL				**371,655**		**695,706**		**877,708**		**928,666**
	ACTIVITY TOTAL				**612,355**		**1,090,046**		**1,207,930**		**1,247,107**

Appropriation: **MISSILES**

Activity: 3. **MODIFICATIONS**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	(THOUSANDS OF DOLLARS) FY 98 QTY	FY 98 COST	FY 99 QTY	FY 99 COST	FY 00 QTY	FY 00 COST	FY 01 QTY	FY 01 COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	****MODIFICATIONS****										
16	PATRIOT MODS (C50700)				7,732		14,275		30,840		22,884
17	STINGER MODS (C20000)				20,984		13,495		17,392		21,985
18	AVENGER MODS (CE8710)				7,152		8,398				6,973
19	ITAS/TOW MODS (C61700)				61,601		62,141		68,306		60,785
20	MLRS MODS (C67500)				556		2,186		6,654		16,664
	SUB-ACTIVITY TOTAL				**98,025**		**100,495**		**123,192**		**129,291**
	ACTIVITY TOTAL				**98,025**		**100,495**		**123,192**		**129,291**

Appropriation: **MISSILES**

Activity: 4. **SPARES AND REPAIR PARTS**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	(THOUSANDS OF DOLLARS) FY 98 QTY	FY 98 COST	FY 99 QTY	FY 99 COST	FY 00 QTY	FY 00 COST	FY 01 QTY	FY 01 COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	****SPARES AND REPAIR PARTS****										
21	SPARES AND REPAIR PARTS (CA0250)				9,357		23,641		19,002		28,964
	SUB-ACTIVITY TOTAL				**9,357**		**23,641**		**19,002**		**28,964**
	ACTIVITY TOTAL				**9,357**		**23,641**		**19,002**		**28,964**

Appropriation: **MISSILES**

Activity: 5. SUPPORT EQUIPMENT AND FACILITIES**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	(THOUSANDS OF DOLLARS) FY 98 QTY	FY 98 COST	FY 99 QTY	FY 99 COST	FY 00 QTY	FY 00 COST	FY 01 QTY	FY 01 COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	****SUPPORT EQUIPMENT AND FACILITIES****										
22	AIR DEFENSE TARGETS (C93000)				964		2,526		2,373		2,410
23	ITEMS LESS THAN $5.0M (MISSILES) (CL2000)				922		919		989		976
24	MISSILE DEMILITARIZATION (HL2000)				1,456		1,461		1,397		1,374
25	PRODUCTION BASE SUPPORT (CA0100)				3,252		3,247		3,221		3,165
	SUB-ACTIVITY TOTAL				**6,594**		**8,153**		**7,980**		**7,925**
	ACTIVITY TOTAL				**6,594**		**8,153**		**7,980**		**7,925**
	APPROPRIATION TOTAL				**726,331**		**1,222,335**		**1,358,104**		**1,413,287**

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Item Nomenclature: AVENGER SYSTEM SUMMARY (C14900)

Program Elements for Code B Items:

Code:

Other Related Program Elements: C15200 AVENGER TRAINING DEVICES, C16000 AVENGER PED MT STINGER (MYP), CAO260 AVENGER SPARES, CA0286 AVENGER MOD SPARES

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	773	93		15	15	11	10	23	64	60	239	1303
Gross Cost	931.2	62.4	0.0	34.9	33.8	30.1	30.5	57.2	130.7	122.3	445.1	1878.1
Less PY Adv Proc	122.9											122.9
Plus CY Adv Proc	122.9											122.9
Net Proc (P-1)	931.2	62.4	0.0	34.9	33.8	30.1	30.5	57.2	130.7	122.3	520.4	1953.4
Initial Spares	60.9					2.9	2.9	6.0	2.0	10.4	66.5	151.7
Total Proc Cost	992.1	62.4	0.0	34.9	33.8	33.0	33.4	63.2	132.8	132.7	586.9	2105.1
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The AVENGER System is a lightweight, highly mobile/transportable surface-to-air missiles/gun weapon system mounted on a High Mobility Multi-purpose Wheeled Vehicle (HMMWV). It is operated by a two man crew for defense against cruise missiles, helicopters and fixed wing aircraft at low altitude, day or night, and in clear or adverse weather. The system incorporates an operator's position with controls, displays, fire control electronics, and the Standard Vehicle Mounted Launcher (SVML). The SVML includes seeker coolant bottles and related hardware and it supports and launches multiple STINGER missiles. The SVML provides output signals that can be used to display to the gunner exactly where the STINGER is pointed. The driven sight reticule capability aids the gunner in severe background clutter and Electro-magnetic Counter Measure (ECM) environments. The system operates with standard unmodified Basic STINGER, STINGER-POST or STINGER-RMP missile rounds, and the high rate of fire .50 CAL machine gun. AVENGER fills the Line-of-Sight Rear (LOS-R) role in Forward Area Air Defense Systems (FAADS). A five year multiyear procurement (MYP) contract for AVENGER began in FY 91. In 1994, Congress provided authority for extending the delivery schedule of AVENGER multiyear procurement authority so the Marine Corps and other services could take advantage of the Army's contract and favorable pricing terms. FY 97 funds procured the remainder of the multi-year procurement (93 fire units). Additional fire units have been funded in FY 99-09 for National Guard requirements. Intent is to field 16 Battalions and 15 enhanced brigades with Army National Guard (ARNG). Also beginning in FY 03, funding is available to procure fire units to upgun the Active Army Battalions.

Exhibit P-40C Budget Item Justification Sheet		Date: February 1999
Appropriation / Budget Activity/Serial No.: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Item Nomenclature: AVENGER SYSTEM SUMMARY (C14900)	
Program Elements for Code B Items	Code	Other Related Program Elements

JUSTIFICATION: AVENGER constitutes the Line-Of-Sight Rear (LOS-R) component of the Forward Area Air Defense System (FAADS), and it is the first FAADS element fielded. Fielding to the ARNG and upgunning the active units is required to meet Total Army Force requirements and to support the National Strategy. By upgunning, 12 fire units are added to approved "F-Series" Table of Organization & Equipment (Conservative Heavy Division) units. Funding will provided for standardization of Air Defense Artillery platoons, increases division night fighting capability and allows a reduction in force structure (removal of Man Portable Air Defense System (MANPADS) teams). Spares funding is dependent on hardware procurement and fielding schedules. Spares will not be bought until 02.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles			P-1 Line Item Nomenclature: AVENGER SYSTEM SUMMARY (C14900)			Weapon System Type:			Date: February 1999		
Missiles	ID	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
AVENGER (PED MT STINGER) (MYP)				VAR									
Hardware-Recurring													
Drive Hardware													
Turret Assembly Army					19232	15	1282	19123	15	1275	17022	11	1547
Unapplied EOQ													
EOQ Diverted to USMC													
Sub-Total Hardware Production					19232	15	1282	19123	15	1275	17022	11	1547
Other Hardware													
Std Veh Mtd Launcher (SVML) Army					3080			4585			3547		
Captive Flight Trainers					829			846			651		
HMMWV					943			963			745		
ECU/PPU					622			636			491		
Sub-Total Other Hardware					5474	15	365	7030	15	469	5434	11	494
Total Driveaway					24706	15	1647	26153	15	1744	22456	11	2041
Support Cost													
Peculiar Support Equipment					3431			1591			3329		
Training Equipment													
Contractor Engineering					3082			3644			2500		
Government Engineering					1748			1837			1434		
Interim Contractor Support													
Fielding					517			525			392		
Other (Non-Recurring Production Qual)					1400								
Sub-Total Support Cost					10178			7597			7655		
Gross P-1 End Cost					34884			33750			30111		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost					34884			33750			30111		
Plus P-1 CY Adv. Proc													
Other Non P-1 Costs													
Initial Spares											2876		
MODS		7152			8398						6943		
TOTAL		**7152**			**43282**			**33750**			**39930**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		AVENGER SYSTEM SUMMARY (C14900)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY 97	Boeing, Huntsville, Alabama	SSM-6/FP	MICOM	Dec-96	May-97	93	379	yes		
FY 97 (FMS)	Boeing, Huntsville, Alabama	SS/FP	MICOM	Dec-96	Mar-98	74	885	yes		
FY 99	Boeing, Huntsville, Alabama	SS/FP	AMCOM	Jun-99	Jul-01	15	1282	yes		
FY 00 Option	Boeing, Huntsville, Alabama	SS/FP	AMCOM	Jun-00	Dec-01	15	1275	yes		
FY 01 Option	Boeing, Huntsville, Alabama	SS/FP	AMCOM	Nov-00	May-02	11	1547	yes		

REMARKS: Price and quantity depends on FMS or other sales. Without additional orders, price is high and production quantity is low and production breaks are inevitable. The FY 97 price was significantly lower since units were part of an economical order quantity. In FY 01 price increases due to a production break.

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: AVENGER SYSTEM SUMMARY (C14900)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 98 OCT	FY 98 NOV	FY 98 DEC	CY 98 JAN	CY 98 FEB	CY 98 MAR	CY 98 APR	CY 98 MAY	CY 98 JUN	CY 98 JUL	CY 98 AUG	CY 98 SEP	FY 99 OCT	FY 99 NOV	FY 99 DEC	CY 99 JAN	CY 99 FEB	CY 99 MAR	CY 99 APR	CY 99 MAY	CY 99 JUN	CY 99 JUL	CY 99 AUG	CY 99 SEP	LATER
AVENGER	1	97	A	93	41	52	10	10	10	10	10	2																		
	1	97	F	74		74						2	9	9	9	9	9	9	9	9											
	1	99	A	15		15																				A				15
	1	00	A	15		15																								15
	1	01	A	11		11																								11

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Boeing , Huntsville, Alabama	3	12	40	15

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	6	8	25	33
	REORDER	2	8	18	26
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: AVENGER SYSTEM SUMMARY (C14900)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 00 OCT	FY 00 NOV	FY 00 DEC	CY 00 JAN	CY 00 FEB	CY 00 MAR	CY 00 APR	CY 00 MAY	CY 00 JUN	CY 00 JUL	CY 00 AUG	CY 00 SEP	FY 01 OCT	FY 01 NOV	FY 01 DEC	CY 01 JAN	CY 01 FEB	CY 01 MAR	CY 01 APR	CY 01 MAY	CY 01 JUN	CY 01 JUL	CY 01 AUG	CY 01 SEP	LATER
AVENGER	1	97	A	93	93																									
	1	97	F	74	74																									
	1	99	A	15	0	15																						3	3	3	6
	1	00	A	15	0	15									A															15
	1	01	A	11	0	11														A										11

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Boeing , Huntsville, Alabama	3	12	40	15

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	6	8	25	33
	REORDER	2	8	18	26
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: AVENGER SYSTEM SUMMARY (C14900)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02 / Calendar Year 02												Fiscal Year 03 / Calendar Year 03										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
AVENGER	1	97	A	93	93																									
	1	97	F	74	74																									
	1	99	A	15	9	6	3	3																						
	1	00	A	15	0	15			3	3	3	3	3																	
	1	01	A	11	0	11								3	3	3	2													

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Boeing , Huntsville, Alabama	3	12	40	15

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	6	8	25	33
	REORDER	2	8	18	26
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 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 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	47692	2856	1100	2000	2200	2200	2200	1797				62045
Gross Cost	2192.2	353.8	240.6	315.2	309.8	300.4	235.5	194.9	26.4	30.4	746.2	4945.4
Less PY Adv Proc					13.3	12.1	10.1	8.8				44.3
Plus CY Adv Proc				44.3								44.3
Net Proc (P-1)	2192.2	353.8	240.6	359.4	296.5	288.3	225.4	186.1	26.4	30.4	746.2	4945.3
Initial Spares	7.5											7.5
Total Proc Cost	2199.7	353.8	240.6	359.4	296.5	288.3	225.4	186.1	26.4	30.4	746.2	4952.8
Flyaway U/C	0.046	0.124	0.217	0.142	0.141	0.135	0.105	0.106				0.080
Wpn Sys Proc U/C	0.046	0.124	0.219	0.180	0.137	0.131	0.102	0.104				0.080

Description: HELLFIRE is an air-to-ground missile system designed to defeat specific targets and minimize exposure of the delivery vehicle to enemy fire. Laser HELLFIRE uses semi-active laser terminal guidance; Longbow HELLFIRE uses a radio frequency guidance section and is a fire-and-forget missile. HELLFIRE is 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. Beginning in FY 90, the missile was reconfigured with an interim warhead to improve lethality against near term threat reactive armor. HELLFIRE II includes hardening of the laser seeker against countermeasures, further warhead improvements for the long term, replacement of the mechanical fuse with an electronic fuse, and restoration of the original length and weight. Longbow HELLFIRE is designed to defeat specific targets and substantially enhance survivability of the AH-64D Longbow Apache Helicopter. The Advanced Precision Kill Weapon System (APKWS) seeker will begin procurement of Long Lead Items and Initial Production Facilities in FY 05. The APKWS will consist of a laser guidance section utilizing existing Hydra-70 rocket components and launch equipment. The APKWS is a highly accurate weapon that will compliment the HELLFIRE missile in precision strike 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.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 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 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	47340	1800										49140
Gross Cost	1939.8	104.5	9.5	14.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0	2070.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1939.8	104.5	9.5	14.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0	2070.4
Initial Spares	5.7											5.7
Total Proc Cost	1945.5	104.5	9.5	14.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0	2076.1
Flyaway U/C	0.041	0.058										0.042
Wpn Sys Proc U/C	0.041	0.058										0.042

Description: HELLFIRE is an air-to-ground missile system designed to defeat specific targets and minimize exposure of the delivery vehicle to enemy fire. Laser HELLFIRE uses semi-active laser terminal guidance and is 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. Beginning in FY 90, the missile was reconfigured with an interim warhead to improve lethality against near term threat reactive armor. HELLFIRE II includes hardening of the laser seeker against countermeasures, further warhead improvements for the long term, replacement of the mechanical fuse with an electronic fuse, and restoration of the original length and weight.

Justification: HELLFIRE II will defeat all known electro-optical countermeasures and advanced reactive armors. Using its semi-active laser homing guidance system, laser HELLFIRE is perfectly suited for precision strikes at a variety of specific hardpoint targets, while minimizing exposure of the aircraft and supporting troops. FY00 funds will complete acceptance testing.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles			P-1 Line Item Nomenclature: LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)			Weapon System Type:			Date: February 1999		
Missiles	ID	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Flyaway Costs													
Hardware Costs - Recurring													
All-Up-Rounds													
Containers													
Gov Furn Eq (GFE) Explosives													
Engineering Services		1200			2742								
Engineering Change Orders													
Fielding		239			311								
Acceptance Testing		1825			3664			2243					
SUBTOTAL		**3264**			**6717**			**2243**					
Engineering Support													
Project Mgt Admin		3198			2956								
Production Engineering Support		3019			4658								
SUBTOTAL		**6217**			**7614**								
NON-Recurring													
Depot Tooling/Test Equipment													
Initial Production Facilitization (IPF)													
Rate Tooling/ Test Equipment													
SUBTOTAL													
TOTAL FLYAWAY		**9481**			**14331**			**2243**					
Peculiar Support Equipment													
Environmental Protection Covers													
SUBTOTAL													
Launchers													
Gross P-1 End Cost		**9481**			**14331**			**2243**					
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		**9481**			**14331**			**2243**					
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares													
Mods													
TOTAL		**9481**			**14331**			**2243**					

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
All-Up-Rounds										
FY 97	HELLFIRE Systems Limited Liability Company (HSLLC)	FFP	AMCOM	Jan-97	May-99	1800	46	Yes		

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

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

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY98 OCT	FY98 NOV	FY98 DEC	CY98 JAN	CY98 FEB	CY98 MAR	CY98 APR	CY98 MAY	CY98 JUN	CY98 JUL	CY98 AUG	CY98 SEP	FY99 OCT	FY99 NOV	FY99 DEC	CY99 JAN	CY99 FEB	CY99 MAR	CY99 APR	CY99 MAY	CY99 JUN	CY99 JUL	CY99 AUG	CY99 SEP	LATER
114F/Rockwell/FY93	1	93	MA	684	684																									
114K/Martin/FY93	2	93	A	2407	2246	161								80	81																
114K/Martin/FY93	2	93	N	1000	1000																									
114K/Martin/FY94	2	94	A	1417	357	1060	1		174	93	89	5	305	190							196	7								
114K/Martin/FY94	2	94	N	1873	584	1289	1		248	411	39	184	394	2	3							7								
114K/Martin/FY95	2	95	A	1600	0	1600								130	283	422	274		291	200										
114K/HSLLC/FY96	2	96	A	750	0	750													174	576										
114K/HSLLC/FY96	2	96	MA	1572	0	1572			200								200					150	95	327	400	200					
114K/HSLLC/FY97	2	97	A	1800	0	1800																				200	300	300	300	350	350
114M/HSLLC/FY98	2	98	N	100	0	100																									100

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Rockwell International (RIC) / Boeing North America	NA	NA	NA	NA
	Duluth, Ga				
2	HELLFIRE Systems Limited Liability Company	104	250	525	18
	Orlando, Fl				

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	1	8	24	32
	REORDER	3	5	23	28
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

Production rate data for RIC assumes IHW version and HSLLC the HF II version. Production lead time reflects the HF II lead time. RIC last US delivery was Jan 94 and last FMS delivery was Jun 94. RIC no longer has a production capability for IHW. HSLLC production rate data reflects a warm base for HF II.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

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

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 00 OCT	FY 00 NOV	FY 00 DEC	CY 00 JAN	CY 00 FEB	CY 00 MAR	CY 00 APR	CY 00 MAY	CY 00 JUN	CY 00 JUL	CY 00 AUG	CY 00 SEP	FY 01 OCT	FY 01 NOV	FY 01 DEC	CY 01 JAN	CY 01 FEB	CY 01 MAR	CY 01 APR	CY 01 MAY	CY 01 JUN	CY 01 JUL	CY 01 AUG	CY 01 SEP	LATER
114F/Rockwell/FY93	1	93	MA	684	684																										
114K/Martin/FY93	2	93	A	2407	2407																										
114K/Martin/FY93	2	93	N	1000	1000																										
114K/Martin/FY94	2	94	A	1417	1417																										
114K/Martin/FY94	2	94	N	1873	1873																										
114K/Martin/FY95	2	95	A	1600	1600																										
114K/HSLLC/FY96	2	96	A	750	750																										
114K/HSLLC/FY96	2	96	MA	1572	1572																										
114K/HSLLC/FY97	2	97	A	1800	1450	350	350																								
114M/HSLLC/FY98	2	98	N	100	0	100								100																	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Rockwell International (RIC) / Boeing North America	NA	NA	NA	NA
	Duluth, Ga				
2	HELLFIRE Systems Limited Liability Company	104	250	525	18
	Orlando, Fl				

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	1	8	24	32
	REORDER	3	5	23	28
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

Production rate data for RIC assumes IHW version and HSLLC the HF II version. Production lead time reflects the HF II lead time. RIC last US delivery was Jan 94 and last FMS delivery was Jun 94. RIC no longer has a production capability for IHW. HSLLC production rate data reflects a warm base for HF II.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 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 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	352	1056	1100	2000	2200	2200	2200	1797				12905
Gross Cost	223.3	249.3	231.2	300.8	307.6	300.4	235.5	194.9	26.4	22.5	0.0	2091.9
Less PY Adv Proc					13.3	12.1	10.1	8.8				44.3
Plus CY Adv Proc				44.3								44.3
Net Proc (P-1)	223.3	249.3	231.2	345.1	294.3	288.3	225.4	186.1	26.4	22.5	0.0	2091.9
Initial Spares												
Total Proc Cost	223.3	249.3	231.2	345.1	294.3	288.3	225.4	186.1	26.4	22.5	0.0	2091.9
Flyaway U/C	0.634	0.236	0.209	0.149	0.138	0.135	0.105	0.106				0.162
Wpn Sys Proc U/C	0.634	0.236	0.210	0.173	0.134	0.131	0.102	0.104				0.164

Description: Longbow HELLFIRE is the air-to-ground missile system component of the Longbow system. It is designed to defeat specific targets and substantially enhance survivability of the AH-64D Longbow Apache Helicopter. Longbow HELLFIRE uses a radio frequency guidance section. Further, the Longbow HELLFIRE missile provides a lock-on-before-launch (LOBL) or lock-on-after-launch (LOAL) capability depending on target range and movement parameters. Longbow does not change the AH-64 mission or role, but provides for increased mission effectiveness by enhancing lethality and survivability. All three Longbow program elements (Fire Control Radar, D Model Apache Helicopter and Longbow HELLFIRE Missile) were developed simultaneously and are scheduled to be fielded as a total system. Laser HELLFIRE and Longbow HELLFIRE are complementary. Both are required on the modern battlefield.

Justification: The Longbow HELLFIRE will provide the capability to conduct battle both day and night in adverse weather and with battlefield obscurants present. With its radio frequency guidance section, the Longbow HELLFIRE provides a true fire and forget capability which dramatically increases the aircraft's survivability as well as maximizing the ability of the Longbow Apache helicopter to operate in adverse weather.

Exhibit P-5, Weapon Missiles Cost Analysis	Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Line Item Nomenclature: LONGBOW HELLFIRE/LBHF+ (C70300)	Weapon System Type:	Date: February 1999

Missiles Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Flyaway Costs													
Hardware Costs - Recurring													
All-Up-Rounds		193600	1100	176	279925	2000	140	288914	2200	131	279457	2200	127
Containers		1300	1100	1	2202	2000	1	2430	2200	1	2469	2200	1
Gov Furn Eq (GFE) Explosives		732			1290			1424			1447		
Engineering Services*		4625			1388			1426			3449		
Engineering Change Orders*		2247											
Fielding*		1100			2245			1707			1735		
Acceptance Testing*		3350			2850			2903			2951		
SUBTOTAL		**206954**			**289900**			**298804**			**291508**		
Engineering Support													
Project Mgt Admin		3463			3650			3659			3721		
Production Engineering Support		3547			3758			3829			3892		
SUBTOTAL		**7010**			**7408**			**7488**			**7613**		
Non-Recurring													
Disposal of Tooling/ Test Equipment													
Initial Production Facilitization (IPF)													
Cost Reduction Program		750											
Rate Tooling/Test Equipment		14800											
SUBTOTAL		**15550**											
TOTAL		**229514**			**297308**			**306292**			**299121**		
Peculiar Support Equipment													
Environmental Protection Covers		1650			3542			1321			1323		
SUBTOTAL		**1650**			**3542**			**1321**			**1323**		
Gross P-1 End Cost		**231164**			**300850**			**307613**			**300444**		
Less: Prior Year Adv Proc								13344			12114		
Net P-1 Full Funding Cost		**231164**			**300850**			**294269**			**288330**		
Plus: P-1 CY Adv Proc					44275								
Other Non P-1 Costs													
Initial Spares													
Mods													
TOTAL		**231164**			**345125**			**294269**			**288330**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		LONGBOW HELLFIRE/LBHF+ (C70300)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
All-Up-Rounds										
FY 98	Longbow Limited Liability Company (LLLC) Orlando, Fl	FFP	AMCOM	Dec-97		1100	176	Yes		**
FY99	Longbow Limited Liability Company (LLLC) Orlando, Fl	*FFP	AMCOM	Mar-99		2000	162	Yes		**
FY00	Longbow Limited Liability Company (LLLC) Orlando, Fl	FFP	AMCOM	Dec-99		2200	125	Yes		**
FY01	Longbow Limited Liability Company (LLLC) Orlando, Fl	FFP	AMCOM	Dec-00		2200	122	Yes		**

REMARKS: *Planned five-year multiyear contract.
**Performance based specifications are used in all production contracts.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: LONGBOW HELLFIRE/LBHF+ (C70300)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98												Fiscal Year 99										LATER
							Calendar Year 98												Calendar Year 99										
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
114/LLLC/FY 96	3	96	A	352	56	296	20	25	26	32	36	35	42	40	20	20														
114/LLLC/FY 97	3	97	A	1056	0	1056												25	30	23		3	100	100	100	100	100	100	100	135	140
114/LLLC/FY 98	3	98	A	1100	0	1100																									1100
114/LLLC/FY 99	3	99	A	2000	0	2000																									2000
114/LLLC/FY 00	3	00	A	2200	0	2200																									2200
114/LLLC/FY 01	3	01	A	2200	0	2200																									2200

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +	MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
3	Longbow Limited Liability Company (LLLC)	100	*	234	18		INITIAL	6	3	28	31
	Orlando, Fl						REORDER	6	2	19	21
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				

REMARKS

*FY 95 to FY 98 facilitizing to achieve a production rate of 184 missiles on a 2-8-5 shift. No plans to procure additional tooling/ test equipment to build a full rate on 1-8-5 shift.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: LONGBOW HELLFIRE/LBHF+ (C70300)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00 / Calendar Year 00												Fiscal Year 01 / Calendar Year 01										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
114/LLLC/FY 96	3	96	A	352	352																									
114/LLLC/FY 97	3	97	A	1056	916	140	140																							
114/LLLC/FY 98	3	98	A	1100	0	1100		100	100	100	100	105	110	115	120	125	125													
114/LLLC/FY 99	3	99	A	2000	0	2000												130	140	150	160	170	175	175	175	180	180	182	183		
114/LLLC/FY 00	3	00	A	2200	0	2200																							183	2017
114/LLLC/FY 01	3	01	A	2200	0	2200																								2200

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
3	Longbow Limited Liability Company (LLLC)	100	*	234	18
	Orlando, Fl				

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	6	3	28	31
	REORDER	6	2	19	21
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

*FY 95 to FY 98 facilitizing to achieve a production rate of 184 missiles on a 2-8-5 shift. No plans to procure additional tooling/ test equipment to build a full rate on 1-8-5 shift.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: LONGBOW HELLFIRE/LBHF+ (C70300)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02 / Calendar Year 02												Fiscal Year 03 / Calendar Year 03										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
114/LLLC/FY 96	3	96	A	352	352																								
114/LLLC/FY 97	3	97	A	1056	1056																								
114/LLLC/FY 98	3	98	A	1100	1100																								
114/LLLC/FY 99	3	99	A	2000	2000																								
114/LLLC/FY 00	3	00	A	2200	183	2017	183	183	183	183	183	183	183	184	184	184	184												
114/LLLC/FY 01	3	01	A	2200	0	2200												183	183	183	183	183	183	183	184	184	184	184	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
3	Longbow Limited Liability Company (LLLC)	100	*	234	18
	Orlando, Fl				

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	6	3	28	31
	REORDER	6	2	19	21
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

*FY 95 to FY 98 facilitizing to achieve a production rate of 184 missiles on a 2-8-5 shift. No plans to procure additional tooling/ test equipment to build a full rate on 1-8-5 shift.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Item Nomenclature: HELLFIRE SYS (ADV PROC) (C70000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.0	0.0	13.3	12.1	10.1	8.8	0.0	0.0	0.0	44.3
Less PY Adv Proc					13.3	12.1	10.1	8.8				44.3
Plus CY Adv Proc			0.0	44.3	0.0	0.0	0.0	0.0	0.0	0.0		44.3
Net Proc (P-1)	0.0	0.0	0.0	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.3
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.3
Flyaway U/C												
Wpn Sys Proc U/C												

Description: Longbow HELLFIRE is the air-to-ground missile system component of the Longbow system. It is designed to defeat specific targets and substantially enhance survivability of the AH-64D Longbow Apache Helicopter. Longbow HELLFIRE uses a radio frequency guidance section. Further, the Longbow HELLFIRE missile provides a lock-on-before-launch (LOBL) or lock-on-after-launch (LOAL) capability depending on target range and movement parameters. Longbow does not change the AH-64 mission or role, but provides for increased mission effectiveness by enhancing lethality and survivability.

Justification: Advance procurement requirement is the Economic Order Quantity (EOQ) materials required for the FY99-03 multiyear procurement. Cost for the EOQ in FY 99 is $44.3M. EOQ materials include: Bulk metals for housing, selected electronic components, bulk materials for antenna, radome, and gimbal transceiver. FY 00 is the second year of the five year multiyear contract. The Longbow HELLFIRE will provide the capability to conduct battle both day and night in adverse weather and with battlefield obscurants present. With its radio frequency guidance section, the Longbow HELLFIRE provides a true fire and forget capability which dramatically increases the aircraft's survivability as well as maximizing the ability of the Longbow Apache Helicopter to operate in adverse weather.

Advance Procurement Requirements Analysis-Funding (P-10A)	First System Award Date:	First System Completion Date:	Date: February 1999
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Line Item Nomenclature / Weapon System: HELLFIRE SYS (ADV PROC) (C70000)		

($ in Millions)

	PLT (mos)	When Rqd (mos)	Pr Yrs	1997	1998	1999	2000	2001	2002	2003	2004	2005	To Comp	Total
End Item Quantity: 8397														
All UP Round	13	18					13.3	12.1	10.1	8.8				44.3
Total Advance Procurement							13.3	12.1	10.1	8.8				44.3

Description: Advance procurement requirement is the Economic Order Quantity (EOQ) materials required for the FY99-03 multiyear procurement. Cost for the EOQ in FY 99 is $44.3M. EOQ materials include: Bulk metals for housing, selected electronic components, bulk materials for antenna, radome, and gimbal transceiver.

Advance Procurement Requirements Analysis-Budget Justification (P-10B)

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Line Item Nomenclature / Weapon System: HELLFIRE SYS (ADV PROC) (C70000)

($ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2000 Qty	2000 Contract Forecast Date	2000 Total Cost Request	2001 Qty	2001 Contract Forecast Date	2001 Total Cost Request
End Item All Up Round	13	1	0.1	2200	FY99*	(13.3)**	2200	FY99*	(12..1)**
Total Advance Procurement						(13.3)**			(12.1)**

Description:
Economic order quanity requirement of $44.3M is part of the overall multiyear (FY99-03) contract. Funding for the FY99-03 five year multiyear contract was requested in the FY99 President's Budget. The multiyear procurement contract award date is Feb 99. No major end item is procured in advance of the all up round. The FY99 Advanced Procurement was used to purchase bulk metals for housing, selected electronic components, buld materials for antenna, radome, and gimbal transceiver.

**Indicates the funding portion of the Prior Year (PY) Advanced Procurement that is used in production process for that year. This is not the additional Advanced Procurement.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 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 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	2585	1020	894	3569	2682	3973	4310	5370				24403
Gross Cost	635.3	162.8	147.3	364.4	307.7	404.5	411.7	404.5	40.8	51.9	81.0	3011.8
Less PY Adv Proc	18.3		9.1	25.6		32.3	31.7	32.8	1.7			151.4
Plus CY Adv Proc	18.3	34.7			98.4							151.4
Net Proc (P-1)	635.3	197.5	138.2	338.7	406.1	372.2	380.0	371.7	39.1	51.9	81.0	3011.7
Initial Spares				4.7	4.5	6.7	7.7	7.9	8.9	0.0		40.4
Total Proc Cost	635.3	197.5	138.2	343.4	410.6	378.9	387.7	379.6	48.0	51.9	81.0	3052.1
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: This project provides procurement funds for JAVELIN, the medium antitank system for infantry, scouts and combat engineers. These forces must have the capability to defeat numerically superior armored forces. The JAVELIN, a replacement for the DRAGON, is a medium range, manportable antitank system for use in all forms of maneuver operations. It can be delivered by individual paratrooper, door bundle, tracked/wheeled vehicles, rail, ship and air. This system has a high kill rate against all known armor threats at extended ranges under day/night, adverse weather and battlefield obscurant conditions. The system's soft launch permits firing from a fighting position or an enclosure. JAVELIN is hardened against countermeasures and does not require extensive training for effective employment. The Command Launch Unit (CLU) is reusable and consists of a target acquisition device, built-in-test (BIT), a trigger mechanism, and appropriate interfaces. The round includes a missile encased in a disposable launch tube assembly. Attached to the launch tube are CLU mating connector, front and rear shock attenuators, removable front end cap, as well as a replaceable battery coolant unit (BCU), an adjustable replaceable shoulder strap, and a replaceable desiccant.

JUSTIFICATION: 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, move to another fighting position, or 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 stationary and moving targets. The JAVELIN is capable of operating at 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 hovering helicopters. The CLU can be used in a stand-alone mode for battlefield surveillance and target selection. There have been 7815 rounds procured through FY1999. There are 16335 rounds planned for purchase in four subsequent years as part of a five-year multiyear contract (FY2000-2004) using economic order quantities funded in FY2000.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles			P-1 Line Item Nomenclature: JAVELIN (AAWS-M) (CC0007)			Weapon System Type:			Date: February 1999		
Missiles	ID	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Missile Hardware- Recurring													
All Up Round		70401	894	79	281130	3569	79	161253	2682	60	238873	3973	60
Engineering Services		1612			4371			7655			5462		
Engineering Change Orders		927			3218			3386			3358		
Acceptance Testing		1070			3184			2810			2761		
Fielding		1115			2051			3023			2290		
SubTotal Missile Hardware		**75125**			**293954**			**178127**			**252744**		
Procurement Support													
Government Project Management		5696			6280			6594			6924		
Government Production Engineering		3344			3512			3688			3605		
Publications/Technical Data		329			416			837			605		
SUBTOTAL		**9369**			**10208**			**11119**			**11134**		
Plant Closure													
Total Flyaway		**84494**			**304162**			**189246**			**263878**		
Command & Launch Hardware													
Command Launch Unit		50095	395	127	37794	298	127	59279	568	104	90589	868	104
Engineering Services		615			553			6302			1943		
Engineering Change Orders		636			756			3133			968		
Fielding		1350			1948			8061			7547		
SubTotal C&L Hardware		**52696**			**41051**			**76775**			**101047**		
Training Devices													
Field Tactical Trainer - Student Station		7843	75	105	15178	144	105	35407	451	79	30775	392	79
Field Tactical Trainer - Instructor Station		391	16	24	808	33	24	1312	70	19	1911	102	19
Basic Skills Trainer		1684	13	130	2479	19	130	3358	33	102	4884	48	102
Missile Simulation Round		204	102	2	660	330	2	1579	665	2	2024	852	2
SubTotal		**10122**			**19125**			**41656**			**39594**		
Gross P-1 End Cost		147312			364338			307677			404519		
Less: Prior Year Adv Proc		9104			25613						32271		
Net P-1 Full Funding Cost		138208			338725			307677			372248		
PLUS P-1 CY Adv. Proc.								98406					
Other Non P-1 Costs													
Initial Spares					4703			4532			6659		
MODS													
TOTAL		**138208**			**343428**			**410615**			**378907**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		JAVELIN (AAWS-M) (CC0007)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
All Up Round										
FY 98	Joint VentureTI/M*	SS/FP**	AMCOM	Dec-97	May-00	894	79	Yes		
FY 99	Joint VentureTI/M*	SS/FP**	AMCOM	Dec-98	May-01	3569	79	Yes		
FY 00	Joint VentureTI/M*	SS/FP**	AMCOM	Dec-99	May-02	2682	60	Yes		Oct-98
FY 01	Joint VentureTI/M*	SS/FP**	AMCOM	Dec-00	May-03	3973	60	Yes		Oct-98
Command Launch Unit										
FY 98	Joint Venture TI/M*	SS/FP**	AMCOM	Dec-97	Oct-99	395	127	Yes		
FY 99	Joint Venture TI/M*	SS/FP**	AMCOM	Dec-98	Oct-00	298	127	Yes		
FY 00	Joint Venture TI/M*	SS/FP**	AMCOM	Dec-99	Oct-01	568	104	Yes		Oct-98
FY 01	Joint Venture TI/M*	SS/FP**	AMCOM	Dec-00	Oct-02	868	104	Yes		Oct-98

REMARKS:

* Lewisville, TX/Orlando, FL

** Multiyear contract

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: JAVELIN (AAWS-M) (CC0007)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98 / Calendar Year 98												Fiscal Year 99 / Calendar Year 99										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
All Up Round	1	FY96	A	1010			80	80	80	81	81	86	87	87	87	87	87	87													
	1	FY97	A	1020															85	85	85	85	85	85	85	85	85	85	85	85	
	1	FY97	MC	141															11	11	11	12	12	12	12	12	12	12	12	12	
	1	FY 98	A	894	0	894																									894
	1	FY98	MC	380	0	380																									380
	1	FY 99	A	3569	0	3569																									3569
	1	FY99	MC	741	0	741																									741
	1	FY 00	A	2682	0	2682																									2682
	1	FY00	MC	954	0	954																									954
	1	FY 01	A	3973	0	3973																									3973
	1	FY01	MC	337	0	337																									337
Command Launch Unit	1	FY96	A	108			9	9	9	9	9	9	9	9	9	9	9	9													
	1	FY97	A	206															17	17	17	17	17	17	17	17	17	17	18	18	
	1	FY97	MC	48															4	4	4	4	4	4	4	4	4	4	4	4	
	1	FY 98	A	395	0	395																									395
	1	FY98	MC	140	0	140																									140
	1	FY 99	A	298	0	298																									298
	1	FY99	MC	153	0	153																									153
	1	FY 00	A	568	0	568																									568
	1	FY00	MC	105	0	105																									105
	1	FY 01	A	868	0	868																									868
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +	MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	Joint Venture TI/M*					1	INITIAL	11	3	16	19
							REORDER	1	1	16	17
	All Up Round Multiyear 1	1320	7080	12390			INITIAL				
	All Up Round Muliyear 2	1320	7080	12390			REORDER				
							INITIAL				
	Command Launch Unit Multiyear 1	120	840	1470			REORDER				
	Command Launch Unit Multiyear 2	120	960	1680			INITIAL				
							REORDER				
							INITIAL				
							REORDER				

REMARKS: With multiyear procurement reorders can be accomplished within one month irregardless of 1 Oct. Reorders are based on contract options.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: JAVELIN (AAWS-M) (CC0007)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00 / Calendar Year 00												Fiscal Year 01 / Calendar Year 01									LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
All Up Round	1	FY96	A	1010	1010																									
	1	FY97	A	1020	1020																									
	1	FY97	MC	141	141																									
	1	FY 98	A	894	0	894	74	74	74	74	74	74	75	75	75	75	75	75												
	1	FY98	MC	380	0	380	32	32	32	32	32	32	32	32	31	31	31	31												
	1	FY 99	A	3569	0	3569													298	298	298	298	298	298	297	297	297	297	297	296	
	1	FY99	MC	741	0	741													61	61	61	62	62	62	62	62	62	62	62	62	
	1	FY 00	A	2682	0	2682																									2682
	1	FY00	MC	954	0	954																									954
	1	FY 01	A	3973	0	3973																									3973
	1	FY01	MC	337	0	337																									337
Command Launch Unit	1	FY96	A	108	108																									
	1	FY97	A	206	206																									
	1	FY97	MC	48	48																									
	1	FY 98	A	395	0	395	33	33	33	33	33	33	33	33	33	33	33	32												
	1	FY98	MC	140	0	140	11	11	11	11	12	12	12	12	12	12	12	12												
	1	FY 99	A	298	0	298													25	25	25	25	25	25	25	25	25	25	24	24	
	1	FY99	MC	153	0	153													12	12	12	13	13	13	13	13	13	13	13	13	
	1	FY 00	A	568	0	568																									568
	1	FY00	MC	105	0	105																									105
	1	FY 01	A	868	0	868																									868
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Joint Venture TI/M*				
	All Up Round Multiyear 1	1320	7080	12390	
	All Up Round Muliyear 2	1320	7080	12390	
	Command Launch Unit Multiyear 1	120	840	1470	
	Command Launch Unit Multiyear 2	120	960	1680	

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		11	3	16	19
	REORDER		1	1	16	17
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

With multiyear procurement reorders can be accomplished within one month irregardless of 1 Oct. Reorders are based on contract options.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: JAVELIN (AAWS-M) (CC0007)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02 / Calendar Year 02												Fiscal Year 03 / Calendar Year 03										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
All Up Round	1	FY96	A	1010	1010																								
	1	FY97	A	1020	1020																								
	1	FY97	MC	141	141																								
	1	FY 98	A	894	894																								
	1	FY98	MC	380	380																								
	1	FY 99	A	3569	3569																								
	1	FY99	MC	741	741																								
	1	FY 00	A	2682	0	2682	223	223	223	223	223	223	224	224	224	224	224	224												
	1	FY00	MC	954	0	954	80	80	80	80	80	80	79	79	79	79	79	79												
	1	FY 01	A	3973	0	3973													331	331	331	331	331	331	331	331	331	331	331	332	
	1	FY01	MC	337	0	337													29	28	28	28	28	28	28	28	28	28	28	28	
Command Launch Unit	1	FY96	A	108	108																								
	1	FY97	A	206	206																								
	1	FY97	MC	48	48																								
	1	FY 98	A	395	395																								
	1	FY98	MC	140	140																								
	1	FY 99	A	298	298																								
	1	FY99	MC	153	153																								
	1	FY 00	A	568	0	568	47	47	47	47	47	47	47	47	48	48	48	48												
	1	FY00	MC	105	0	105	8	8	8	9	9	9	9	9	9	9	9	9												
	1	FY 01	A	868	0	868													72	72	72	72	72	72	72	72	73	73	73	73	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Joint Venture TI/M*				
	All Up Round Multiyear 1	1320	7080	12390	
	All Up Round Muliyear 2	1320	7080	12390	
	Command Launch Unit Multiyear 1	120	840	1470	
	Command Launch Unit Multiyear 2	120	960	1680	

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		11	3	16	19
	REORDER		1	1	16	17
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

With multiyear procurement reorders can be accomplished within one month irregardless of 1 Oct. Reorders are based on contract options.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Item Nomenclature: JAVELIN (AAWS-M) (ADV PROC) (CC0007)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.0	0.0	0.0	32.3	31.7	32.8	1.7	0.0	0.0	98.4
Less PY Adv Proc						32.3	31.7	32.8	1.7			98.4
Plus CY Adv Proc			0.0	0.0	98.4	0.0	0.0	0.0	0.0	0.0		98.4
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flyaway U/C												
Wpn Sys Proc U/C												

The Fiscal Year 2000 advance procurement funds will provide economic order quantities for years two through five (FY 2001 through FY 2004) of the second multiyear contract. Javelin is a medium antitank system for infantry, scouts, and combat engineers. These forces must have the capability to defeat numerically superior armored forces. The Javelin, a replacement for the Dragon, is a medium range, manportable antitank system for use in all forms of maneuver operations. It can be delivered by individual paratrooper, door bundle, tracked/wheeled vehicles, rail, ship and air. This system has a high kill rate against all known armor threats at extended ranges under day/night, adverse weather and battlefield obscurant conditions. The system's soft launch permits firing from a fighting position or from an enclosure. The Javelin is hardened against countermeasures and does not require extensive training for effective employment. Advance Procurement will buy parts and materials in support of the All Up Round, Command Launch Unit (CLU), the Basic Skills Trainer, Field Tactical Trainer (FTT)-Instructor Station, and the FTT-Student Station.

Advance Procurement Requirements Analysis-Funding (P-10A)

First System Award Date:	First System Completion Date:	Date:
December 2001	October 2003	February 1999

Appropriation / Budget Activity/Serial No:	P-1 Line Item Nomenclature / Weapon System:
MISSILE PROCUREMENT / 2 / Other Missiles	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)

($ in Millions)

	PLT (mos)	When Rqd (mos)	Pr Yrs	1997	1998	1999	2000	2001	2002	2003	2004	2005	To Comp	Total
End Item Quantity: 13653														
All Up Round	19							22.0	23.1	28.1				73.2
Command Launch Unit	18							6.7	5.6	3.1	1.6			16.9
Field Tactical Trainer Student Sta	18							2.9	2.0	1.1	0.1			6.1
Field Tactical Trainer Instructor Sta	18							0.2	0.2	0.1	0.0			.6
Basic Skills Trainer	18							0.4	0.8	0.4	0.0			1.6
Total Advance Procurement								32.3	31.7	32.8	1.7			98.4

Description: All Up Round - Pieces and components for the motors, seeker/guidance electronic unit, warhead and control actuator section are being procured.
Command Launch Unit - Pieces and components for the basic sight assembly, detector/dewar cooler, afocal assembly and housing are being procured.
Basic Skills Trainer - Pieces and components for the simulated round, housing and simulated command launch unit are being procured.
Field Tactical Trainer Student Station and Instructor Station - Pieces and components for the miles laser computer, video recorder/display and interface electronics are being procured.
Economic order quantity requirement of $98M is part of the overall multiyear 2 (FY 00-FY 04) contract value of $1488M.

Advance Procurement Requirements Analysis-Budget Justification (P-10B)

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Line Item Nomenclature / Weapon System: JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)

($ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2000 Qty	2000 Contract Forecast Date	2000 Total Cost Request	2001 Qty	2001 Contract Forecast Date	2001 Total Cost Request
End Item									
All Up Round	19		.060	13653 (FY01/3973) (FY02/4310) (FY03/5370	Dec 99	73.2			
Command Launch Units	18		.104	2241 (FY01/868) (FY02/749) (FY03/415) (FY04/209)	Dec 99	16.9			
Field Tactical Trainer Student Sta	18		.079	823 (FY01/392) (FY02/267) (FY03/149) FY04/15)	Dec 99	6.1			
Field Tactical Trainer Instructor Sta	18		.019	313 (FY01/102) (FY02/137) (FY03/72) (FY04/02)	Dec 99	0.6			
Basic Skills Trainer	18		.102	186 (FY01/48) (FY02/84) (FY03/42) (FY04/12)	Dec 99	1.6			
Total Advance Procurement						98.4			

Description:
Economic order quantity requirement of $98M is part of the overall multiyear 2 (FY 00-FY 04) contract value of $1488M.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Item Nomenclature: MLRS ROCKET (C65400)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	480036	1908	624				720	1374	1530	2412	77832	566436
Gross Cost	3613.9	45.3	19.2	0.0	3.3	9.5	40.9	63.0	65.7	98.1	3095.0	7054.0
Less PY Adv Proc	429.4											429.4
Plus CY Adv Proc	449.8											449.8
Net Proc (P-1)	3634.2	45.3	19.2	0.0	3.3	9.5	40.9	63.0	65.7	98.1	3095.0	7074.3
Initial Spares												
Total Proc Cost	3634.2	45.3	19.2	0.0	3.3	9.5	40.9	63.0	65.7	98.1	3095.0	7074.3
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 will enhance the capability of the existing MLRS rocket by providing improvements in range, accuracy and effectiveness, and maneuver force safety (improved submunitions with self destruct fuzes). Starting in FY 02, the Guided Multiple Launch Rocket System (GMLRS) will integrate a guidance and control package into the ER-MLRS rocket which will result in reduced mission time and increased survivability of the system. Funding in FY00 provides program support (salaries), production engineering suppoort associated with deliveries of rockets in prior years, and stock reliability.

JUSTIFICATION: FY00 funding provides program support (salaries, etc.), production engineering support associated with deliveries of rockets in prior years, and stockpile reliability. 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 will accomplish this mission. 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.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles			P-1 Line Item Nomenclature: MLRS EXTENDED RANGE ROCKET (C65402)			Weapon System Type:			Date: February 1999		
Missiles Cost Elements	ID CD	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$	$OOO	Each	$	$OOO	Each	$	$OOO	Each	$
FLY-AWAY COSTS													
HARDWARE													
Tactical/Practice Round (Less GFE)		12411	624	19889									
Submunition		3407	323232	11									
Engineering Services		55						355			705		
Industrial Maintenance Contracts											5394		
Production Engineering		713						1083			1250		
OGA		421						550			582		
Engineering Change Orders													
Fielding		230						25			21		
SUBTOTAL		**17237**						**2013**			**7952**		
PROCUREMENT SUPPORT													
Project Management Admin		1077						1031			1098		
Test & Evaluation		815						294			346		
Service Support Contract		68									115		
SUBTOTAL		**1960**						**1325**			**1559**		
Gross P-1 End Cost		**19197**						**3338**			**9511**		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		**19197**						**3338**			**9511**		
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares													
Mods													
TOTAL		**19197**						**3338**			**9511**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		MLRS EXTENDED RANGE ROCKET (C65402)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Tactical/Practice Round (Less GFE)										
FY 98	Lockheed Martin Vought Sys., Dallas, TX	SS/FFP	PEO-Tactical Missiles/AMCOM	Jun-98	May-00	624	19889	Yes		

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS EXTENDED RANGE ROCKET (C65402)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 98 OCT	FY 98 NOV	FY 98 DEC	CY 98 JAN	CY 98 FEB	CY 98 MAR	CY 98 APR	CY 98 MAY	CY 98 JUN	CY 98 JUL	CY 98 AUG	CY 98 SEP	FY 99 OCT	FY 99 NOV	FY 99 DEC	CY 99 JAN	CY 99 FEB	CY 99 MAR	CY 99 APR	CY 99 MAY	CY 99 JUN	CY 99 JUL	CY 99 AUG	CY 99 SEP	LATER
Tactical/Practice Round (Less GFE)	1	94 & Pr	A	477396	477396																									
	1	94 & Pr	FMS	26244	26244																									
ER-MLRS	2	97 & Pr	A	3546	0	3546						90	162	162	240	240	204	204	204	204	204	204	114				96	204	204	810
	2	FY 97	FMS	1338	0	1338						6	216	108								84	204	204	204	204	108			
	2	FY 98	A	624	0	624									A															624
	2	FY 98	FMS	672	0	672																								672
	2	FY 98	FRA	162	0	162																								162
	2	FY 99	A		0																									
GMLRS	3	FY 02	A	720	0	720																								720
	3	FY 03	A	1374	0	1374																								1374
	3	FY 04	A	1530	0	1530																								1530
	3	FY 05	A	2412	0	2412																								2412
TOTAL				516018	503640	12378						96	378	270	240	240	204	204	204	204	204	198	204	204	204	204	204	204	204	8304

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Lockheed Martin Vought Sys., Dallas, TX	500			12
2	Lockheed Martin Vought Sys., Dallas, TX	500			12
3	Lockheed Martin Vought Sys., Dallas, TX	500			12

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL	8	2	16	18
	REORDER	0	2	16	18
2	INITIAL	8	2	16	18
	REORDER	0	2	16	18
3	INITIAL	8	2	16	18
	REORDER	0	2	16	18
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

No Tactical Rockets procured in FY 95.

Reduced Range Practice Rockets delivered 1Q98.

FY 96 quantities reflect nonstandard production based on contract.

FY 96 & 97 quantities were procured on the FY 98 contract.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS EXTENDED RANGE ROCKET (C65402)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00 / Calendar Year 00												Fiscal Year 01 / Calendar Year 01										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Tactical/Practice Round (Less GFE)	1	94 & Pr	A	477396	477396																									
	1	94 & Pr	FMS	26244	26244																									
ER-MLRS	2	97 & Pr	A	3546	2736	810	204	204				108	204	90																
	2	FY 97	FMS	1338	1338																									
	2	FY 98	A	624	0	624								114	204	204	102													
	2	FY 98	FMS	672	0	672			168	204	204	96																		
	2	FY 98	FRA	162	0	162											102	60												
	2	FY 99	A		0																									
GMLRS	3	FY 02	A	720	0	720																								720
	3	FY 03	A	1374	0	1374																								1374
	3	FY 04	A	1530	0	1530																								1530
	3	FY 05	A	2412	0	2412																								2412
TOTAL				516018	507714	8304	204	204	168	204	204	204	204	204	204	204	204	60												6036

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Lockheed Martin Vought Sys., Dallas, TX	500			12
2	Lockheed Martin Vought Sys., Dallas, TX	500			12
3	Lockheed Martin Vought Sys., Dallas, TX	500			12

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	ADMIN LEAD TIME After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL	8	2	16	18
	REORDER	0	2	16	18
2	INITIAL	8	2	16	18
	REORDER	0	2	16	18
3	INITIAL	8	2	16	18
	REORDER	0	2	16	18
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

No Tactical Rockets procured in FY 95.

FY 96 & 97 quantities were procured on the FY 98 contract.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Item Nomenclature: MLRS LAUNCHER (C65900)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	754		21	24	47	90	90	90	96	102	297	1611
Gross Cost	1980.6	105.1	123.7	120.1	130.6	198.8	184.2	233.3	195.6	200.7	697.6	4170.4
Less PY Adv Proc	54.5					16.0	25.1	24.4	24.6		81.7	226.3
Plus CY Adv Proc	56.9				16.0	39.4	34.6			31.3	50.4	228.7
Net Proc (P-1)	1983.0	105.1	123.7	120.1	146.6	222.2	193.7	209.0	171.0	232.0	666.2	4172.9
Initial Spares	158.4		0.3	6.8	6.3	10.3	12.4	13.2	13.7	14.1	72.1	307.5
Total Proc Cost	2141.4	105.1	124.0	127.0	152.9	232.5	206.1	222.2	184.7	246.1	738.3	4480.4
Flyaway U/C		2.3	3.6	2.4	2.1	1.9	1.6	1.5	1.5	1.5	1.5	
Wpn Sys Proc U/C		2.6	5.9	5.0	3.1	2.5	2.2	2.3	1.8	2.3	2.2	

DESCRIPTION: The Multiple Launch Rocket System (MLRS) provides a high volume of fire power in a very short timeframe. Operationally, the system is designed for the mobility, flexibility, and range requirements of the modern battlefield. Mounted on a derivative of the Bradley Fighting Vehicle (BFV), the 12-round launcher/loader requires a crew of three persons to conduct launching missions. The range, using the Extended Range rocket, is 45 kilometers. In FY98 and out, procurement of an Improved Fire Control System (IFCS) and an Improved Launcher Mechanical System (ILMS) becomes part of the M270A1 upgrade. The IFCS is a modification to the current Fire Control System which provides the interface with the Fire Direction Center, the Munitions Controls and the MLRS Launcher. The IFCS upgrades the system's electronics, providing increased processing capability, an embedded global positioning system for future munitions and improved fault isolation for ease of launcher maintenance. The ILMS allows faster target engagement on time-sensitive, short-dwell-time targets and greatly reduces time on the firing point and reload operations in order to improve the survivability of the crew and the launcher. FY97 funds provide for remanufactured launchers. Quantities for FY98 and beyond are for M270A1 upgrades. The M270A1 upgrades are needed to fire the Block 1A ATACMS missile. FY 98-03 funding also includes rebuilt launchers for deployment to MLRS Heavy Divisions.

JUSTIFICATION: The objectives of the system are counterfire and suppression of enemy air defenses, light materiel, and personnel targets. The system is designed for adaptation to other warheads such as scatterable mines, terminally guided munitions, and other smart munitions. MLRS is the Army's rocket launch platform for the next decade. The IFCS provides faster response times for high priority targets, enhances survivability, supports attack operations, mitigates electronic hardware obsolescence and reduces operating and support costs. The ILMS decreases stow-to-aim point timeline, enhances effectiveness in engaging and supporting the force, and increases MLRS platform survivability.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles			P-1 Line Item Nomenclature: MLRS LAUNCHER (C65900)			Weapon System Type:			Date: February 1999		
Missiles	ID	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$	$OOO	Each	$	$OOO	Each	$	$OOO	Each	$
GROUND EQUIPMENT HARDWARE													
Launcher		52578	21	2503714	48683	24	2028458	61269	47	1303596	106446	90	1182733
Remanufacture		5734			1238			19149			33425		
Launcher Pod/Container (LP/C) Trainer		200	42	4762	196	48	4083	1027	94	10926	2000	180	11111
2x9/3x6 Launcher		11208			25000			4200			445		
Peculiar Support Equipment		27146			11301			8369			19345		
Engineering Services		1582			13267			14450			14680		
Production Engineering		6642			7455			7694			7935		
OGA		4041			5867			5955			6050		
Engineering Change Orders		481			509			518			527		
Fielding		231						1877			1684		
Facilitization		8103											
SUBTOTAL		**117946**			**113516**			**124508**			**192537**		
PROCUREMENT SUPPORT													
Project Management Admin		4858			4935			5009			5089		
Service Support Contract		904			1692			1117			1136		
SUBTOTAL		**5762**			**6627**			**6126**			**6225**		
Gross P-1 End Cost		**123708**			**120143**			**130634**			**198762**		
Less: Prior Year Adv Proc											15993		
Net P-1 Full Funding Cost		**123708**			**120143**			**130634**			**182769**		
Plus: P-1 CY Adv Proc								15993			39442		
Other Non P-1 Costs					620			479			843		
Initial Spares		291			6840			6257			10325		
Mods		556			2186			6654			16664		
TOTAL		**124555**			**129789**			**160017**			**250043**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		MLRS LAUNCHER (C65900)

WBS Cost Elements: Fiscal Years	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 M270A1										
FY 98	Lockheed Martin Vought Sys, Dallas, TX	SS/FFP	PEO-Tactical Missiles/AMCOM	Jul-98	Apr-00	21	2503714	Yes		
FY 99	Lockheed Martin Vought Sys, Dallas, TX	SS/FFP	PEO-Tactical Missiles/AMCOM	Nov-98	Dec-00	24	2028458	Yes		
FY 00	Lockheed Martin Vought Sys, Dallas, TX	SS/FFP	PEO-Tactical Missiles/AMCOM	Jan-00	Dec-01	47	1303596	Yes		
FY 01	Lockheed Martin Vought Sys, Dallas, TX	SS/FFP	PEO-Tactical Missiles/AMCOM	Jan-01	Dec-02	90	1182733	Yes		

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS LAUNCHER (C65900)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 98 OCT	FY 98 NOV	FY 98 DEC	CY 98 JAN	CY 98 FEB	CY 98 MAR	CY 98 APR	CY 98 MAY	CY 98 JUN	CY 98 JUL	CY 98 AUG	CY 98 SEP	FY 99 OCT	FY 99 NOV	FY 99 DEC	CY 99 JAN	CY 99 FEB	CY 99 MAR	CY 99 APR	CY 99 MAY	CY 99 JUN	CY 99 JUL	CY 99 AUG	CY 99 SEP	LATER
Launcher M270	1	95 & Pr	A	772	755	17								3	2		1											3	3	5
	1	95 & Pr	NG	85	85																									
	1	95 & Pr	FMS	108	96	12	4	1		4	3																			
	1	FY 96	FMS	20	6	14	6	5								3														
	1	FY 97	FMS	29	0	29							3	3			1	3	3	3	3		1	1	3	1	1			
	1	FY 98	FMS	18	0	18																								18
Launcher Remanufacture	2	FY 96	A	29	24	5	3	2																						
	2	FY 97	A	35	0	35		2	3	3	3	3	3	3	3	3	3	3	3											
Launcher M270A1	3	FY 98	A	21	0	21										A														21
	3	FY 99	A	24	0	24														A										24
	3	FY 00	A	47	0	47																								47
	3	FY 01	A	90	0	90																								90
	3	FY 02	A	90	0	90																								90
	3	FY 03	A	90	0	90																								90
	3	FY 04	A	96	0	96																								96
	3	FY 05	A	102	0	102																								102
TOTAL				1656	966	690	13	10	3	7	6	3	6	9	5	6	5	6	6	3	3	3		1	1	3	1	1	3	3	583

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	FY 98												FY 99												
	CY 98												CY 99												

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Lockheed Martin Vought Sys, Dallas, TX	2	4	10	
2	Lockheed Martin Vought Sys, Dallas, TX	2	6	12	
3	Lockheed Martin Vought Sys, Dallas, TX	2	8	12	

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL	8	2		2
	REORDER	0	2		2
2	INITIAL	7	2		2
	REORDER	0	2		2
3	INITIAL	8	2	24	26
	REORDER	0	2	24	26
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

Commercial sale to Japan will have scheduled deliveries for Feb 99.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS LAUNCHER (C65900)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 00 / CY 00 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FY 01 / CY 01 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	LATER
Launcher M270	1	95 & Pr	A	772	767	5	3	2																							
	1	95 & Pr	NG	85	85																										
	1	95 & Pr	FMS	108	108																										
	1	FY 96	FMS	20	20																										
	1	FY 97	FMS	29	29																										
	1	FY 98	FMS	18	0	18		1	3	3	2	2	2	2	2	1														
Launcher Remanufacture	2	FY 96	A	29	29																										
	2	FY 97	A	35	35																										
Launcher M270A1	3	FY 98	A	21	0	21							1	2	3	3	3	3	3	2	1										
	3	FY 99	A	24	0	24															1	2	2	2	2	2	2	2	3	2	4
	3	FY 00	A	47	0	47				A																					47
	3	FY 01	A	90	0	90																A									90
	3	FY 02	A	90	0	90																									90
	3	FY 03	A	90	0	90																									90
	3	FY 04	A	96	0	96																									96
	3	FY 05	A	102	0	102																									102
TOTAL				1656	1073	583	3	3	3	3	2	2	3	4	5	4	3	3	3	2	2	2	2	2	2	2	2	3	2	519

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	FY 00 / CY 00												FY 01 / CY 01												

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Lockheed Martin Vought Sys, Dallas, TX	2	4	10	
2	Lockheed Martin Vought Sys, Dallas, TX	2	6	12	
3	Lockheed Martin Vought Sys, Dallas, TX	2	8	12	

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL	8	2		2
	REORDER	0	2		2
2	INITIAL	7	2		2
	REORDER	0	2		2
3	INITIAL	8	2	24	26
	REORDER	0	2	24	26
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS LAUNCHER (C65900)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02 / Calendar Year 02												Fiscal Year 03 / Calendar Year 03									LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Launcher M270	1	95 & Pr	A	772	772																									
	1	95 & Pr	NG	85	85																									
	1	95 & Pr	FMS	108	108																									
	1	FY 96	FMS	20	20																									
	1	FY 97	FMS	29	29																									
	1	FY 98	FMS	18	18																									
Launcher Remanufacture	2	FY 96	A	29	29																									
	2	FY 97	A	35	35																									
Launcher M270A1	3	FY 98	A	21	21																									
	3	FY 99	A	24	20	4	2	2																						
	3	FY 00	A	47	0	47			3	4	4	4	4	4	4	4	4	4	4	4										
	3	FY 01	A	90	0	90				A											5	6	7	8	8	8	8	8	8	16
	3	FY 02	A	90	0	90																								90
	3	FY 03	A	90	0	90																								90
	3	FY 04	A	96	0	96																								96
	3	FY 05	A	102	0	102																								102
TOTAL				1656	1137	519	2	2	3	4	4	4	4	4	4	4	4	4	4	4	5	6	7	8	8	8	8	8	8	394

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Lockheed Martin Vought Sys, Dallas, TX	2	4	10	
2	Lockheed Martin Vought Sys, Dallas, TX	2	6	12	
3	Lockheed Martin Vought Sys, Dallas, TX	2	8	12	

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL	8	2		2
	REORDER	0	2		2
2	INITIAL	7	2		2
	REORDER	0	2		2
3	INITIAL	8	2	24	26
	REORDER	0	2	24	26
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS LAUNCHER (C65900)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 04 OCT	FY 04 NOV	FY 04 DEC	CY 04 JAN	CY 04 FEB	CY 04 MAR	CY 04 APR	CY 04 MAY	CY 04 JUN	CY 04 JUL	CY 04 AUG	CY 04 SEP	FY 05 OCT	FY 05 NOV	FY 05 DEC	CY 05 JAN	CY 05 FEB	CY 05 MAR	CY 05 APR	CY 05 MAY	CY 05 JUN	CY 05 JUL	CY 05 AUG	CY 05 SEP	LATER
Launcher M270	1	95 & Pr	A	772	772																									
	1	95 & Pr	NG	85	85																									
	1	95 & Pr	FMS	108	108																									
	1	FY 96	FMS	20	20																									
	1	FY 97	FMS	29	29																									
	1	FY 98	FMS	18	18																									
Launcher Remanufacture	2	FY 96	A	29	29																									
	2	FY 97	A	35	35																									
Launcher M270A1	3	FY 98	A	21	21																									
	3	FY 99	A	24	24																									
	3	FY 00	A	47	47																									
	3	FY 01	A	90	74	16	8	8																						
	3	FY 02	A	90	0	90			8	7	8	7	8	7	8	7	8	7	8	7										
	3	FY 03	A	90	0	90															8	7	8	7	8	7	8	7	8	7	15
	3	FY 04	A	96	0	96																									96
	3	FY 05	A	102	0	102																									102
TOTAL				1656	1262	394	8	8	8	7	8	7	8	7	8	7	8	7	8	7	8	7	8	7	8	7	8	7	8	7	213

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Lockheed Martin Vought Sys, Dallas, TX	2	4	10	
2	Lockheed Martin Vought Sys, Dallas, TX	2	6	12	
3	Lockheed Martin Vought Sys, Dallas, TX	2	8	12	

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL	8	2		2
	REORDER	0	2		2
2	INITIAL	7	2		2
	REORDER	0	2		2
3	INITIAL	8	2	24	26
	REORDER	0	2	24	26
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Item Nomenclature: MLRS LAUNCHER SYSTEMS (ADV PROC) (C66400)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost												0.0
Less PY Adv Proc	56.9					16.0	25.1	24.4	24.5		81.7	228.7
Plus CY Adv Proc	56.9				16.0	39.4	34.6			31.3	50.4	228.7
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The advance procurement funds will provide economic purchases of parts and materials in support of the Multiple Launch Rocket System (MLRS) M270A1 upgrade. In FY 98 and out, procurement of an Improved Fire Control System (IFCS) and an Improved Launcher Mechanical System (ILMS) becomes part of the M270A1 upgrade. The IFCS is a modification to the current Fire Control System which provides the interface with the Fire Direction Center, the Munitions Controls and the MLRS Launchers. The IFCS upgrades the system's electronics providing increased processing capability, an embedded global positioning system for future munitions and improved fault isolation for ease of launcher maintenance. The ILMS allows faster target engagement on time sensitive, short dwell time targets and greatly reduces time on the firing point and reload operations in order to improve the survivability of the crew and launcher.

Advance Procurement Requirements Analysis-Funding (P-10A)

First System Award Date:	First System Completion Date:	Date:
January 2001	January 2003	February 1999

Appropriation / Budget Activity/Serial No:	P-1 Line Item Nomenclature / Weapon System:
MISSILE PROCUREMENT / 2 / Other Missiles	MLRS LAUNCHER SYSTEMS (ADV PROC) (C66400)

($ in Millions)

	PLT (mos)	When Rqd (mos)	Pr Yrs	1997	1998	1999	2000	2001	2002	2003	2004	2005	To Comp	Total
End Item Quantity: CFE														
47	24						16.0							16.0
90	24							39.4						39.4
90	24								34.6					34.6
399	24											31.3	50.4	81.7
Total Advance Procurement							16.0	39.4	34.6			31.3	50.4	171.8

Description: Advance procurement of M270A1 kits for the first multiyear starts in FY 00. Advance procurement for the second multiyear procures M270A1 kits starting in FY 05.

Advance Procurement Requirements Analysis-Budget Justification (P-10B)

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Line Item Nomenclature / Weapon System: MLRS LAUNCHER SYSTEMS (ADV PROC) (C66400)

($ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2000 Qty	2000 Contract Forecast Date	2000 Total Cost Request	2001 Qty	2001 Contract Forecast Date	2001 Total Cost Request
End Item									
M270A1 Launcher	24	1	1.4	47	Jan 00	16.0			
M270A1 Launcher	24	1	1.2				90	Jan 01	39.4
Total Advance Procurement						16.0			39.4

Description: Advanced Procurement is for M270A-1 kits (IFCS and ILMS) which require a 24-month leadtime to meet the integration schedule.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 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 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	1717	167	109	96	110	100						2299
Gross Cost	1143.5	127.2	89.8	87.8	95.6	90.8	15.2	9.8	0.0	0.0	0.0	1659.6
Less PY Adv Proc	75.1											75.1
Plus CY Adv Proc	75.1											75.1
Net Proc (P-1)	1143.5	127.2	89.8	87.8	95.6	90.8	15.2	9.8	0.0	0.0	0.0	1659.6
Initial Spares	2.3	1.0	0.9									4.2
Total Proc Cost	1145.8	128.2	90.8	87.8	95.6	90.8	15.2	9.8	0.0	0.0	0.0	1663.8
Flyaway U/C	0.6	0.8	0.8	0.9	0.9	0.9						
Wpn Sys Proc U/C	0.9	0.9	.9	.9	.9	.9						

DESCRIPTION: The Army TACMS 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 and are being deployed within the ammunition loads of corps MLRS battalions and/or division artillery MLRS batteries. Army TACMS includes the Guided Missile and Launching Assembly; the Test Set, Guided Missile System; the Training Set, Guided Missile System; the M-165; the Trainer, Test Device, Guided Missile; the M70; the Modified M270 Launcher; and the Army TACMS Missile Facilities (ATMF).

JUSTIFICATION: The Army TACMS is air-transportable and provides a deep-fire missile system that operates in nearly all weather conditions, day or night. 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.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles			P-1 Line Item Nomenclature: ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)			Weapon System Type:			Date: February 1999		
Missiles Cost Elements	ID CD	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Missile Hardware- Recurring													
Prime Contract		63470	109	582	64992	96	677	71500	110	650	67000	100	670
GFE					100			100			100		
Flight Kits		2704			2005			3260			1900		
Engineering Services		8889			6500			7000			6600		
Engineering Change Orders (ECOs)		100			510			290			270		
Fielding		100			170			208			208		
Subtotal Missile Hardware		75263			74277			82358			76078		
Procurement Support													
Project Management		4031			2965			2872			2946		
Production Engineering Support		5427			5780			5422			6027		
Test and Evaluation		4424			3843			4053			4777		
Subtotal Procurement Support		13882			12588			12347			13750		
TOTAL MISSILE FLYAWAY		89145			86865			94705			89828		
Command & Launch Integration													
Command & Launch Integration Spt		665			935			914			949		
Subtotal C&L Integration		665			935			914			949		
Support Cost													
Missile Test Device													
ATMF Test and Support Equipment													
Subtotal Support Cost													
Gross P-1 End Cost		**89810**			**87800**			**95619**			**90777**		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		**89810**			**87800**			**95619**			**90777**		
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares		943											
Mods													
TOTAL		**90753**			**87800**			**95619**			**90777**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Army TACMS Block IA Missile										
FY 98	LMVS, Dallas, TX	SS/FP	AMCOM	Mar-98	May-99	109	582	Yes		Sep-96
FY 99	LMVS, Dallas, TX	SS/FP	AMCOM	Nov-98	Mar-00	96	677	Yes		Sep-96
FY 00	LMVS, Dallas, TX	SS/FP	AMCOM	Nov-99	Mar-01	110	650	Yes		
FY 01	LMVS, Dallas, TX	SS/FP	AMCOM	Nov-00	Mar-02	100	660	Yes		

REMARKS: FY 98 buy LLTI award date - Dec 98

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

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

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98 / Calendar Year 98: OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Fiscal Year 99 / Calendar Year 99: OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	LATER
Army TACMS Block I Missile		96 & Pr	A	1647	1647																										
	1	FY 94	N	3	3																										
	1	FY 96	FMS	72	1	71	6	11	10	11	11	11	11																		
	1	FY 97	FMS	41		41										6	7	7	7	7	7										
	1	FY 98	FMS	141		141	A										1	8	8	8	8	12	12	12	8	10	7	7	5	5	30
Army TACMS Block IA Missile	1	FY 96	A	70	14	56	8	8	8	8	8	8	8																		
	1	FY 97	A	167		167								8	8	8	8	8	8	8	8	8	8	8	9	5	5	7	7	7	39
	1	FY 98	A	109		109						A														9	9	9	10	12	60
	1	FY 99	A	96		96														A											96
	1	FY 00	A	110		110																									110
	1	FY 01	A	100		100																									100

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +	MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	LMVS, Dallas, TX	*10	38	48	15		INITIAL		1	16	17
							REORDER		1	16	17
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				

REMARKS

*The minimum sustaining rate is 120 per year or 10 per month. However, at increased cost and risk, a reduced production rate can be accommodated

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

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

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00 / Calendar Year 00												Fiscal Year 01 / Calendar Year 01										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Army TACMS Block I Missile		96 & Pr	A	1647	1647																									
	1	FY 94	N	3	3																									
	1	FY 96	FMS	72	72																									
	1	FY 97	FMS	41	41																									
	1	FY 98	FMS	141	111	30	2	3	3	5	7	10																		
Army TACMS Block IA Missile	1	FY 96	A	70	70																									
	1	FY 97	A	167	128	39	9	8	9	7	6																			
	1	FY 98	A	109	49	60	13	13	12	12	10																			
	1	FY 99	A	96		96						8	8	8	8	8	8	8	8	8	8	8	8							
	1	FY 00	A	110		110		A																10	10	9	9	9	9	9	45
	1	FY 01	A	100		100														A											100
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	LMVS, Dallas, TX	*10	38	48	15

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL		1	16	17
	REORDER		1	16	17
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

*The minimum sustaining rate is 120 per year or 10 per month. However, at increased cost and risk, a reduced production rate can be accommodated

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

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

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	LATER
							Fiscal Year 02												Fiscal Year 03												
										Calendar Year 02												Calendar Year 03									
Army TACMS Block I Missile		96 & Pr	A	1647	1647																										
	1	FY 94	N	3	3																										
	1	FY 96	FMS	72	72																										
	1	FY 97	FMS	41	41																										
	1	FY 98	FMS	141	141																										
Army TACMS Block IA Missile	1	FY 96	A	70	70																										
	1	FY 97	A	167	167																										
	1	FY 98	A	109	109																										
	1	FY 99	A	96	96																										
	1	FY 00	A	110	65	45	9	9	9	9	9																				
	1	FY 01	A	100		100						9	9	9	9	9	9	9	9	9	9	10									

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +	MFR Number		ADMIN LEAD TIME Prior 1 Oct.	ADMIN LEAD TIME After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	LMVS, Dallas, TX	*10	38	48	15		INITIAL		1	16	17
							REORDER		1	16	17
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				

REMARKS

*The minimum sustaining rate is 120 per year or 10 per month. However, at increased cost and risk, a reduced production rate can be accommodated

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No:	P-1 Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles	ATACMS/BAT (CA6101)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty				30	61	77	87	112	103	131	1205	1806
Gross Cost	0.0	0.0	0.0	48.9	76.8	91.8	114.8	149.5	146.6	173.1	1226.1	2027.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	48.9	76.8	91.8	114.8	149.5	146.6	173.1	1226.1	2027.7
Initial Spares						1.4	1.4					
Total Proc Cost	0.0	0.0	0.0	48.9	76.8	93.2	116.2	149.5	146.6	173.1	1226.1	2030.4
Flyaway U/C				1.5	1.2	1.2	1.3	1.3	1.4	1.3	1.0	1.1
Wpn Sys Proc U/C				1.6	1.3	1.2	1.3	1.3	1.4	1.3	1.0	1.1

DESCRIPTION: The Army Tactical Missile System Block II (ATACMS BLK II), a version of the currently fielded and combat-proven Army TACMS Block I missile, will be a ground-launched, solid propellant, inertially guided (Global Positioning System (GPS) aided) missile system with 13 BATs or P3I BATs as its payload. It will be launched from the Multiple Launch Rocket System (MLRS) modified M270A1 launcher and will be deployed within the ammunition loads of corps MLRS battalions and/or division artillery MLRS batteries. The Army TACMS Block IIA (ATACMS Block IIA) will carry 6 BAT P3I submunitions as its payload rather than 13 BAT submunitions. The ATACMS Block IIA will be launched from the M270A1 launcher in response to the same Command and Control (C2) nodes applicable to the Block I, Block IA, and Block II missiles. Since the Block IIA payload only houses 6 submunitions rather than 13, as in the Block II, it is capable of achieving extended ranges comparable to the Block IA. Production funding for the ATACMS Block IIA begins in FY04 for procurement of long lead items.

JUSTIFICATION: The primary mission of the ATACMS BLK II is to delay, disrupt, neutralize, or destroy armored combat vehicles/organization. ATACMS BLK II will carry and dispense BAT and BAT P3I submunitions deep into enemy territory where these submunitions will automatically track and destroy targets. Global Positioning System (GPS) technology will increase accuracy in flight. FY99 will buy 30 ATACMS Block II missiles to support low rate initial production (LRIP). The FY00 funding will procure 61 ATACMS BLK II missiles for an LRIP II award.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles			P-1 Line Item Nomenclature: ATACMS/BAT (CA6101)			Weapon System Type:			Date: February 1999		
Missiles	ID	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Missile Hardware- Recurring													
Prime Contract (Includes Initial Prod Fac)					36360	30	1212	66002	61	1082	74844	77	972
Flight Kits					1500			406			827		
Engineering Services					527			2796			2961		
Engineering Change Orders (ECOs)					343			571			185		
Fielding					360			100			613		
Subtotal Missile Hardware					39090			69875			79430		
Procurement Support													
Project Management					2445			2180			3190		
Production Engineering Support					3651			3618			4129		
Test and Evaluation					333			312			4336		
Subtotal Procurement Support					6429			6110			11655		
TOTAL MISSILE FLYAWAY					45519			75985			91085		
Command & Launch Integration													
Command & Launch Integration Spt					758			802			759		
Subtotal C&L Integration					758			802			759		
Support Cost													
Missile Test Device					731								
Army Tac Msl Fac Test & Spt Equipment					1916								
Subtotal Support Cost					2647								
Gross P-1 End Cost					**48924**			**76787**			**91844**		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost					**48924**			**76787**			**91844**		
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares											1381		
Mods													
TOTAL					**48924**			**76787**			**93225**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		ATACMS/BAT (CA6101)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
ATACMS BLK II										
FY 99	LMVS, Dallas, TX	SS/FPI	AMCOM	Mar-99	Dec-00	30	1212	Yes		Jun-98
FY 00	LMVS, Dallas, TX	SS/FPI	AMCOM	Dec-99	Sep-01	61	1082			
FY 01	LMVS, Dallas, TX	SS/FPI	AMCOM	Dec-00	Sep-02	77	972			

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: ATACMS/BAT (CA6101)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98 / Calendar Year 98 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Fiscal Year 99 / Calendar Year 99 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	LATER
ATACMS BLK II	1	FY 99	A	30		30																		A							30
ATACMS BLK II	1	FY 00	A	61		61																									61
ATACMS BLK II	1	FY 01	A	77		77																									77

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	LMVS, Dallas, TX	*10	38	48	15

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL		5	21	26
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

*The minimum sustaining rate is 120 per year or 10 per month. However, at increased cost and risk, a reduced production rate can be accommodated.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: ATACMS/BAT (CA6101)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00 / Calendar Year 00												Fiscal Year 01 / Calendar Year 01										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
ATACMS BLK II	1	FY 99	A	30		30															2	2	3	3	4	4	4	4	4		
ATACMS BLK II	1	FY 00	A	61		61			A																				5	56
ATACMS BLK II	1	FY 01	A	77		77															A									77

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	LMVS, Dallas, TX	*10	38	48	15

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL		5	21	26
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

*The minimum sustaining rate is 120 per year or 10 per month. However, at increased cost and risk, a reduced production rate can be accommodated.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: ATACMS/BAT (CA6101)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02 / Calendar Year 02												Fiscal Year 03 / Calendar Year 03										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
ATACMS BLK II	1	FY 99	A	30	30																									
ATACMS BLK II	1	FY 00	A	61	5	56	5	5	5	5	5	5	5	5	5	5	6													
ATACMS BLK II	1	FY 01	A	77		77												6	6	6	6	6	6	6	7	7	7	7	7	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	LMVS, Dallas, TX	*10	38	48	15

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL		5	21	26
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

*The minimum sustaining rate is 120 per year or 10 per month. However, at increased cost and risk, a reduced production rate can be accommodated.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Item Nomenclature: BAT (CA6100)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty				420	846	1028	1126	1781	1549	1751	11053	19554
Gross Cost	0.0	0.0	0.0	100.1	149.3	136.4	149.5	224.5	192.9	198.5	1105.3	2256.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	100.1	149.3	136.4	149.5	224.5	192.9	198.5	1105.3	2256.4
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	100.1	149.3	136.4	149.5	224.5	192.9	198.5	1105.3	2256.4
Flyaway U/C				0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Wpn Sys Proc U/C				.2	.2	.1	.1	.1	.1	.1	.1	.1

DESCRIPTION: The BAT submunition is an anti-armor, top attack submunition with acoustic and infrared (IR) seekers working in tandem for autonomous attack of armored combat vehicles. The BAT is a guided submunition that searches for, tracks, and destroys moving armored targets. The Pre-Planned Product Improvement (P3I) BAT uses millimeter wave, infrared, and acoustic seekers in tandem to attack additional target arrays which include cold stationary targets and surface-to-surface missile transporter erector launchers.

JUSTIFICATION: The BAT submunition will be carried deep into enemy territory by the Army Tactical Missile System (ATACMS) Block II. It will be dispensed over numerous high-payoff targets to selectively attack and destroy individual targets. By utilizing acoustic technology, BAT has the advantage of a large footprint which allows it to compensate for target location errors. BAT will enter Low Rate Initial Production (LRIP) in FY99. A LRIP II award is scheduled in FY00 with a follow-on Full Rate Production in FY01.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles			P-1 Line Item Nomenclature: BAT (CA6100)			Weapon System Type:			Date: February 1999		
Missiles Cost Elements	ID CD	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Missile Hardware- Recurring													
Prime Contract (Includes Initial Prod Fac)					91140	420	217	127746	846	151	115136	1028	112
GFE													
Flight Kits													
Engineering Services								4505			6879		
Engineering Change Orders (ECOs)					795			1490			1532		
Fielding								5			15		
Subtotal Missile Hardware					91935			133746			123562		
Procurement Support													
Project Management					3329			4745			5206		
Production Engineering Support					2753			5786			5352		
Test and Evaluation					1303			4977			2271		
Subtotal Procurement Support					7385			15508			12829		
TOTAL MISSILE FLYAWAY					99320			149254			136391		
Command & Launch Integration													
Command & Launch Integration Spt													
Subtotal C&L Integration													
Support Cost													
Missile Test Device													
Army Tac Msl Fac Test & Spt Equipment					779								
Subtotal Support Cost					779								
Gross P-1 End Cost					**100099**			**149254**			**136391**		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost					**100099**			**149254**			**136391**		
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares													
Mods													
TOTAL					**100099**			**149254**			**136391**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		BAT (CA6100)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
BAT										
FY 99	LMVS, Dallas, TX	SS/FPI	AMCOM	Mar-99	Sep-00	420	217	Yes		Jun-98
FY 00	LMVS, Dallas, TX	SS/FPI	AMCOM	Dec-99	Jun-01	846	151			
FY 01	LMVS, Dallas, TX	SS/FPI	AMCOM	Dec-00	Jun-02	1028	112			

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: BAT (CA6100)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98 / Calendar Year 98 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Fiscal Year 99 / Calendar Year 99 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	LATER
BAT	1	FY 99	A	420	0	420																		A							420
BAT	1	FY 00	A	846	0	846																									846
BAT	1	FY 01	A	1028	0	1028																									1028

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	LMVS, Dallas, TX	120	240	600	12

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL		5	18	23
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: BAT (CA6100)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 00 OCT	FY 00 NOV	FY 00 DEC	CY 00 JAN	CY 00 FEB	CY 00 MAR	CY 00 APR	CY 00 MAY	CY 00 JUN	CY 00 JUL	CY 00 AUG	CY 00 SEP	FY 01 OCT	FY 01 NOV	FY 01 DEC	CY 01 JAN	CY 01 FEB	CY 01 MAR	CY 01 APR	CY 01 MAY	CY 01 JUN	CY 01 JUL	CY 01 AUG	CY 01 SEP	LATER
BAT	1	FY 99	A	420	0	420									13	13	17	21	25	31	37	43	48	53	57	62					
BAT	1	FY 00	A	846	0	846			A																		55	65	70	70	586
BAT	1	FY 01	A	1028	0	1028															A										1028

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	LMVS, Dallas, TX	120	240	600	12

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL		5	18	23
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: BAT (CA6100)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02 / Calendar Year 02												Fiscal Year 03 / Calendar Year 03										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
BAT	1	FY 99	A	420	420																								
BAT	1	FY 00	A	846	260	586	70	70	71	75	75	75	75	75															
BAT	1	FY 01	A	1028	0	1028									75	75	80	80	82	85	85	86	95	95	95	95				

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	LMVS, Dallas, TX	120	240	600	12

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL		5	18	23
	REORDER				

REMARKS

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Item Nomenclature: MULTI PURPOSE INDV MUN (C09100)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty							222	576	956	1767		3521
Gross Cost	0.0	0.0	0.0	0.0	0.0	1.8	24.3	23.3	47.8	49.7	0.0	147.0
Less PY Adv Proc							-3.8					-3.8
Plus CY Adv Proc						3.8						3.8
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	5.7	20.5	23.3	47.8	49.7	0.0	147.0
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	5.7	20.5	23.3	47.8	49.7	0.0	147.0
Flyaway U/C												
Wpn Sys Proc U/C												

Mission Description: Provides for the production of a lightweight, shoulder fired, multiple purpose weapon. Provides the infantry with a fire and forget weapon for defeating enemy forces in buildings, bunkers, and lightly armored vehicles. The Multi-Purpose Individual Munition/Short Range Assault Weapon (MPIM/SRAW) is capable of being fired quickly from its carrying configuration and can be safely fired from an enclosure for the close battle. It is more versatile than the AT4 system because it can be fired from enclosures and defeat bunkers and various field fortifications. This system will have tremendously increased lethality over the AT4 and will be multiple target capable. System design will allow for growth, service life extension and technology insertion to support the U.S. Army mission of crisis response to regionally based threats. The Army and U.S. Marine Corps have signed a memorandum of agreement for a horIzontal technology integration effort using the USMC SRAW flight module/launcher as the carrier for the MPIM warhead.

Justification: Production dollars in FY01 are required for Plant Facilitization (test stations,tooling,etc.) and to purchase long-lead items to support an LRIP start of 2QFY02. LRIP will culminate with an FUE in late 4QFY02.

Exhibit P-5, Weapon Missiles Cost Analysis	Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Line Item Nomenclature: MULTI PURPOSE INDV MUN (C09100)	Weapon System Type:	Date: February 1999

Missiles Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
LLI (ADVANCE PROCUREMENT)											3837	222	17
FACILITIZATION											1847		
TOTAL											**5684**		

Exhibit P-40, Budget Item Justification Sheet											Date: February 1999	
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles						P-1 Item Nomenclature: MULTI PURPOSE INDV MUN (ADV PROC) (C09100)						
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost												0.0
Less PY Adv Proc							3.8					3.8
Plus CY Adv Proc						3.8						3.8
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flyaway U/C												
Wpn Sys Proc U/C												

MISSION DESCRIPTION: Provides for the production of a lightweight, shoulder fired, multiple purpose weapon. Provides the infantry with a fire and forget weapon system. The Multi Purpose Individual Munition/Short Range Assault Weapon(MPIM/SRAW) can be fired quickly and safely from an enclosure for the close battle. It is more versitle and has increased lethality over the AT4 and will be multiple target capable. Advance Procurement will buy parts and components in support of the warhead, rocket motors, grenade safe&arm, generator and rate sensors.Long Lead Items are critical to meeting program scheduled First Unit Equipped (FUE) for the 75th Ranger Regiment in the 4th qtr. FY02.

JUSTIFICATION: Advance Procurement dollars are required to purchase long lead items to support an LRIP start in 2QFY02. LRIP will culminate with an FUE in late 4QFY02.

Advance Procurement Requirements Analysis-Funding (P-10A)

First System Award Date:	First System Completion Date:	Date:
		February 1999

Appropriation / Budget Activity/Serial No:	P-1 Line Item Nomenclature / Weapon System:
MISSILE PROCUREMENT / 2 / Other Missiles	MULTI PURPOSE INDV MUN (ADV PROC) (C09100)

($ in Millions)

	PLT (mos)	When Rqd (mos)	Pr Yrs	1997	1998	1999	2000	2001	2002	2003	2004	2005	To Comp	Total
End Item Quantity:222														
Warhead Assy.	12							.949						
Rocket Motors	12							1.457						
Main/Grenade Safe&Arm	12							.649						
Gas Generator	10							.496						
Rate Sensor	8							.286						
Total Advance Procurement								3.837						

Description: Advance Procurement dollars are required to purchase long lead items to support an LRIP start in FY02.

Advance Procurement Requirements Analysis-Budget Justification (P-10B)

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles

P-1 Line Item Nomenclature / Weapon System: MULTI PURPOSE INDV MUN (ADV PROC) (C09100)

($ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2000 Qty	2000 Contract Forecast Date	2000 Total Cost Request	2001 Qty	2001 Contract Forecast Date	2001 Total Cost Request
End Item									
Warhead Assembly	12	1	4,273				222	Nov 01	.949
Rocket Motor	12	1	6,192				222	Nov 01	1.457
Main/Grenade Safe&Arm	12	1	2,924				222	Nov 01	.649
Gas Generator	10	1	2,236				222	Nov 01	.496
Rate Sensor	8	1	1,290				222	Nov 01	.286
Total Advance Procurement									3.837

Description: Single year procurement will be used in FY01,02 and 03 with a multi year contract in FY04 incorporating economic order quantities.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 3 / Modification of Missles

P-1 Item Nomenclature: PATRIOT MODS (C50700)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	400.0	23.3	7.7	14.3	30.8	22.9	23.8	22.9	51.7	68.8	101.5	767.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	400.0	23.3	7.7	14.3	30.8	22.9	23.8	22.9	51.7	68.8	101.5	767.6
Initial Spares	44.5	5.2	2.7	4.9	3.7	2.7	0.7	1.5	4.0	5.3	25.3	100.5
Total Proc Cost	444.5	28.5	10.4	19.2	34.5	25.6	24.5	24.4	55.6	74.1	126.8	868.1
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 Froce 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.

JUSTIFICATION: The FY00 funding is required to support the planned system Growth Program which will add hardware enhancements/improvements to the PATRIOT Weapon System. Detailed justification by modification kit follows which includes installation costs.

Exhibit P-40M Budget Item Justification Sheet										Date: February 1999	
Appropriation / Budget Activity/Serial No.: MISSILE PROCUREMENT / 3 / Modification of Missles						P-1 Item Nomenclature: PATRIOT MODS (C50700)					
Program Elements for Code B Items			Code	Other Related Program Elements							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
RLCEU											
1-92-03-1233		2.8	8.7	12.1	11.6	14.7	0.0	0.0	0.0	0.0	49.9
Block VII											
1-88-03-1224		21.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.7
Block VIII (RAM Mods)											
1-89-03-1230		4.4	5.6	6.4	6.6	4.1	3.3	4.0	0.0	0.0	34.4
Integrated Diagnostic Support System											
1-97-03-1244		6.1	0.0	4.7	2.1	0.0	0.0	0.0	0.0	0.0	12.9
RLCEU (LINK 16/JTIDS)											
1-97-03-1246		0.0	0.0	2.6	2.6	0.0	0.0	0.0	0.0	0.0	5.2
Communications Relay Group											
1-98-03-1248		0.0	0.0	0.0	0.0	5.0	8.0	34.5	27.6	0.0	75.1
RAM MODS											
1-98-03-1249		0.0	0.0	0.0	0.0	0.0	11.6	13.2	41.2	101.5	167.5
10th Battalion											
1-98-03-1250		0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5
Tactical Command System											
1-98-03-1251		0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5
GEM Plus/Minus											
1-97-03-1245		5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
Totals		40.8	14.3	30.8	22.9	23.8	22.9	51.7	68.8	101.5	377.5

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: RLCEU 1-92-03-1233

MODELS OF SYSTEMS AFFECTED: Radar, ECS, 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 Operational Requirement Document (ORD) requirements for interoperability and communications are satisfied by this effort.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Preliminary Design Review	2QFY96	3QFY96
Critical Design Review (CDR)	4QFY96	4QFY96
Contractor Test and Evaluation (CTE)	1QFY99	
Development Test and Evaluation (DTE)	2QFY99	
Initial Operational Test and Evaluation (IOTE)	4QFY99	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	5							8	3			4	4	6		6	4			4	3
Outputs	5								4	4	3		4	4	3	3	3	3	4		4

Jan-00

	FY 2004				FY 2005				FY 2006			5	FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs			4	3														54
Outputs	3			4	3													54

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 18 Months

Contract Dates:	FY 1999	Dec 98	FY 2000	Dec 99	FY 2001	Dec 00
Delivery Date:	FY 1999	Jun 00	FY 2000	Jun 01	FY 2001	Jun 02

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): RLCEU 1-92-03-1233

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	16	2.6	14	8.0	10	11.0	7	10.4	7	13.4									54	45.4
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	16	0.2																	16	0.2
FY 1999 Eqpt -- Kits			14	0.7															14	0.7
FY 2000 Eqpt -- Kits					10	1.1													10	1.1
FY 2001 Eqpt -- Kits							7	1.2											7	1.2
FY 2002 Eqpt -- kits									7	1.3									7	1.3
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	16	0.2	14	0.7	10	1.1	7	1.2	7	1.3									54	4.5
Total Procurement Cost		2.8		8.7		12.1		11.6		14.7										49.9

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Block VII 1-88-03-1224

MODELS OF SYSTEMS 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 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 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	332																				
Outputs	332																				

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		332
Outputs																		332

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Block VII 1-88-03-1224

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	332	17.7																	332	17.7
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	332	4.0																	332	4.0
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	332	4.0																	332	4.0
Total Procurement Cost		21.7																		21.7

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Block VIII (RAM Mods) 1-89-03-1230

MODELS OF SYSTEMS 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 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 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	64	32	31	53	53	53	52	93	92	92	92	103	103	103	102	57	56	56	56	50	50
Outputs	32	32	32	31	53	53	53	52	93	92	92	92	103	103	103	102	57	56	56	56	50

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	50	50	75	75	75	75												1843
Outputs	50	50	50	75	75	75	75											1843

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

Contract Dates:	FY 1999	Dec 98	FY 2000	Dec 99	FY 2001	Dec 00
Delivery Date:	FY 1999	Jun 99	FY 2000	Jun 00	FY 2001	Jun 01

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Block VIII (RAM Mods) 1-89-03-1230

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	127	4.0	211	5.0	369	5.8	411	6.0	225	3.6	200	2.9	300	3.4					1843	30.7
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	127	0.4																	127	0.4
FY 1999 Eqpt -- Kits			211	0.6															211	0.6
FY 2000 Eqpt -- Kits					369	0.6													369	0.6
FY 2001 Eqpt -- Kits							411	0.6											411	0.6
FY 2002 Eqpt -- kits									225	0.5									225	0.5
FY 2003 Eqpt -- kits											200	0.4							200	0.4
FY 2004 Eqpt -- kits													300	0.6					300	0.6
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	127	0.4	211	0.6	369	0.6	411	0.6	225	0.5	200	0.4	300	0.6					1843	3.7
Total Procurement Cost		4.4		5.6		6.4		6.6		4.1		3.3		4.0						34.4

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Integrated Diagnostic Support System 1-97-03-1244

MODELS OF SYSTEMS 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 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	7									7				5							
Outputs	7										7				5						

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		19
Outputs																		19

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

Contract Dates:	FY 1999	FY 2000	Feb 00	FY 2001	Feb 01
Delivery Date:	FY 1999	FY 2000	Nov 00	FY 2001	Nov 01

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Integrated Diagnostic Support System 1-97-03-1244

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	7	5.9			7	4.3	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 1998 & Prior Eqpt -- Kits	7	0.2																	7	0.2
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits					7	0.4													7	0.4
FY 2001 Eqpt -- Kits							5	0.1											5	0.1
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	7	0.2			7	0.4	5	0.1											19	0.7
Total Procurement Cost		6.1				4.7		2.1												12.9

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: RLCEU (LINK 16/JTIDS) 1-97-03-1246

MODELS OF SYSTEMS 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 PADIL Data Link (PADIL) 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 not applicable

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs										3	4	4	4	5	5	5	5				
Outputs											3	4	4	4	5	5	5	5			

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		35
Outputs																		35

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

Contract Dates: FY 1999 FY 2000 Apr 00 FY 2001 Apr 01

Delivery Date: FY 1999 FY 2000 Oct 00 FY 2001 Oct 01

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): RLCEU (LINK 16/JTIDS) 1-97-03-1246

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity					15	2.3	20	2.3											35	4.6
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits					15	0.3													15	0.3
FY 2001 Eqpt -- Kits							20	0.3											20	0.3
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment					15	0.3	20	0.3											35	0.6
Total Procurement Cost						2.6		2.6												5.2

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Communications Relay Group 1-98-03-1248

MODELS OF SYSTEMS AFFECTED: CRG

DESCRIPTION / JUSTIFICATION:

This provides for the acquisition of additional Communication Relay Group's (CRG's)

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Major milestones not applicable

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				1	
Outputs																					1

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs			1	1			2	2	2		2	2	2					15
Outputs				1	1			2	2	2		2	2	2				15

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

Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Communications Relay Group 1-98-03-1248

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity									1	4.5	2	7.3	6	31.4	6	25.1			15	68.3
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits									1	0.5									1	0.5
FY 2003 Eqpt -- kits											2	0.7							2	0.7
FY 2004 Eqpt -- kits													6	3.1					6	3.1
FY 2005 Eqpt -- kits															6	2.5			6	2.5
TC Equip-Kits																				
Total Installment									1	0.5	2	0.7	6	3.1	6	2.5			15	6.8
Total Procurement Cost										5.0		8.0		34.5		27.6				75.1

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: RAM MODS 1-98-03-1249

MODELS OF SYSTEMS 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 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 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				11	11
Outputs																					11

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	11	12	15	15	15	10	50	50	50	50	50	50	50	50	50	50	500	1100
Outputs	11	11	12	15	15	15	10	50	50	50	50	50	50	50	50	50	550	1100

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE (Cont): RAM MODS 1-98-03-1249

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity											45	10.5	55	12.1	200	37.5	800	92.3	1100	152.4
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits											45	1.1							45	1.1
FY 2004 Eqpt -- kits													55	1.1					55	1.1
FY 2005 Eqpt -- kits															200	3.7			200	3.7
TC Equip-Kits																	800	9.2	800	9.2
Total Installment											45	1.1	55	1.1	200	3.7	800	9.2	1100	15.1
Total Procurement Cost												11.6		13.2		41.2		101.5		167.5

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: 10th Battalion 1-98-03-1250

MODELS OF SYSTEMS AFFECTED:

DESCRIPTION / JUSTIFICATION:

Provides ancillary equipment required to establish a Headquarters and Headquarter battery (HHB) and two fire units. Equipment includes Army Stock fund Class VII deployable common Table of Allowance, Special Tools and equipment, and Class IX system-peculiar equipment.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Major milestones not applicable.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs												1									
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		1
Outputs																		

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 18 Months

Contract Dates: FY 1999 FY 2000 Oct 99 FY 2001

Delivery Date: FY 1999 FY 2000 Apr 01 FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): 10th Battalion 1-98-03-1250

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity					1	2.4													1	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 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits					1	0.1													1	0.1
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment					1	0.1													1	0.1
Total Procurement Cost						2.5														2.5

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Tactical Command System 1-98-03-1251

MODELS OF SYSTEMS AFFECTED:

DESCRIPTION / JUSTIFICATION:

Provides for a modification/integration of a Joint Tactical Terminal into existing Tactical Command System shelters. Terminals are necessary to receive and process the Integrated Broadcast Service (IBS) transmission.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Major milestones not applicable.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs								8	8												
Outputs									8	8											

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		16
Outputs																		16

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 6 Months

Contract Dates: FY 1999 FY 2000 Oct 99 FY 2001

Delivery Date: FY 1999 FY 2000 Apr 00 FY 2001

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE (Cont): Tactical Command System 1-98-03-1251

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity					16	2.4													16	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 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits					16	0.1													16	0.1
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment					16	0.1													16	0.1
Total Procurement Cost						2.5														2.5

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: GEM Plus/Minus 1-97-03-1245

MODELS OF SYSTEMS AFFECTED: PAC-2 Missile

DESCRIPTION / JUSTIFICATION:

Modification of existing PAC-2 missiles. Provides Cruise Missile Defense performance improvements by retrofitting PAC-2 missiles during missile recertification cycle with a Surface Acoustic Wave (SAW) Oscillator and a Guidance Enhanced Missile (GEM) fuze.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Major milestones not applicable.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs					15	20	20	20													
Outputs						15	20	20	20												

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		75
Outputs																		75

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 18 Months

Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): GEM Plus/Minus 1-97-03-1245

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	75	5.3																	75	5.3
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	75	0.5																	75	0.5
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	75	0.5																	75	0.5
Total Procurement Cost		5.8																		5.8

Exhibit P-40, Budget Item Justification Sheet	Date: February 1999
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 3 / Modification of Missles	P-1 Item Nomenclature: STINGER MODS (C20000)
Program Elements for Code B Items:	Code:
Other Related Program Elements: Manpads, Avenger, Bradley Linebacker, Kiowa Warrior	

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	25.9	37.2	21.0	13.5	17.4	22.0	27.8	26.3	41.3	101.1	820.4	1153.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	25.9	37.2	21.0	13.5	17.4	22.0	27.8	26.3	41.3	101.1	820.4	1153.8
Initial Spares												
Total Proc Cost	25.9	37.2	21.0	13.5	17.4	22.0	27.8	26.3	41.3	101.1	820.4	1153.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

STINGER Block I Upgrades. Hardware and software modifications to the STINGER-RMP Missile System improves performance against targets which are slow moving, employing advanced counter-measures, or operating at night. In order to take advantage of the Block I missile's improved capability, each firing platform must be modified. Stinger Troop Proficiency Trainer is the primary trainer for Stinger gunners. It is scenario driven and field deployable.

Stinger Block II Upgrades. The STINGER Block II Missile Upgrade is a pre-planned product improvement to the Stinger-RMP missile. The replacement of the existing Stinger infrared/ultraviolet seeker with the Block II's infrared focal plane array seeker significantly improves the missile. The Block II upgrade will add the following performance improvements: provide 2.5 times the acquisition range; engage rotary wing targets in clutter; engage UAV's, cruise missiles, and stealth fixed-wing targets below 10,000 feet; full night and degraded weather capability, advanced infrared counter measures capability; and extends the missile service life.

JUSTIFICATION:

STINGER Block I Upgrades. The STINGER Block I Upgrade corrects deficiencies in engagements against head/tail-on and slow moving targets, counter-measures, and night time engagements and a safety deficiency whereby aviation platforms must super-elevate to fire the missile. This materiel change was recommended as the near term solution by the Air-to-Air Missile General Officer's Steering Committee. Stinger Troop Proficiency Trainer upgrade corrects major training deficiencies and obsolescence, eliminates the need for the manpower intensive Moving Target Simulators (MTS) and Improved MTS, resulting in large O & S savings.

Stinger Block II Upgrades - The January 1996 Stinger Guided Missile System Operational Requirements Document (ORD) states upgrades to Stinger are required to buy back required battlespace lost against the current and evolving threat, to counter, defeat, and destroy the future threat, and to extend Stinger's Capabilities necessary for accomplishment of new Army Operations doctrine. Stinger must allow for future growth to provide effective capability against evolving threats.

Exhibit P-40M Budget Item Justification Sheet										Date: February 1999	
Appropriation / Budget Activity/Serial No.: MISSILE PROCUREMENT / 3 / Modification of Missles						P-1 Item Nomenclature: STINGER MODS (C20000)					
Program Elements for Code B Items			Code	Other Related Program Elements: Manpads, Avenger, Bradley Linebacker, Kiowa Warrior							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Stinger Block I Upgrades C21300											
01-87-03-1510	Operational	21.0	13.5	17.4	22.0	27.8	26.3	27.6	34.4	0.0	189.9
Stinger Block II Upgrades C21400											
01-87-03-1510	Operational	0.0	0.0	0.0	0.0	0.0	0.0	13.7	66.7	820.4	900.8
Total		21.0	13.5	17.4	22.0	27.8	26.3	41.3	101.1	820.4	1,090.7

Exhibit P-40, Budget Item Justification Sheet										Date: February 1999		
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 3 / Modification of Missles					P-1 Item Nomenclature: STINGER Block I Upgrades (C21300)							
Program Elements for Code B Items:				Code:	Other Related Program Elements: Manpads, Avenger, Bradley Linebacker, Kiowa Warrior							
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	25.9	37.2	21.0	13.5	17.4	22.0	27.8	26.3	27.6	34.4	0.0	253.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	25.9	37.2	21.0	13.5	17.4	22.0	27.8	26.3	27.6	34.4	0.0	253.0
Initial Spares												
Total Proc Cost	25.9	37.2	21.0	13.5	17.4	22.0	27.8	26.3	27.6	34.4	0.0	253.0
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION

Stinger Block I Missile Upgrades - Hardware and software modifications to the STINGER RMP Missile System improves performance against targets which are slow moving, employing advanced counter-measures, or operating at night. These 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.

Stinger Block I Platform Upgrades - In order to take advantage of the Block I missile's improved capability, each firing platform must be modified. For MANPADS gripstocks new EEPROMS 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 systems Interface Electronics Assembly.

Stinger Troop Proficency Trainer is the primary trainer for Stinger gunners. It is scenario driven and field deployable.

Bradley Linebacker - Funding for Bradley Linebacker in FY99 and out is now budgeted in Wheeled and Tracked Combat Vehicles (WTCV) appropriation.

JUSTIFICATION

Stinger Block I Missile Upgrade - The STINGER Block I Upgrade corrects deficiencies in engagements against head/tail-on and slow moving targets, counter-measures, and night time engagements and a safety deficiency whereby aviation platforms must super-elevate to fire the missile. This materiel change was recommended as the near term solution by the Air-to-Air Missile General Officer's Steering Committee.

Stinger Block I Platform Upgrades - In order to take advantage of the Block I missile's improved capability, each firing platform must be modified. Without modifications, Block I missiles fired from these platforms will perform as Stinger-RMP missiles, negating the Block I missile improved performance.

Stinger Troop Proficiency Trainer upgrade corrects major training deficiencies and obsolescence, eliminates the need for the manpower intensive Moving Target Simulators (MTS) and Improved MTS, resulting in large O & S savings.

Exhibit P-40M Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No.: MISSILE PROCUREMENT / 3 / Modification of Missles

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

Program Elements for Code B Items:

Code:

Other Related Program Elements: Manpads, Avenger, Bradley Linebacker, Kiowa Warrior

Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Stinger Block I Missile Upgrades											
01-87-03-1510	Operational	11.3	13.5	17.4	22.0	27.8	26.3	27.6	31.8	0.0	177.6
Stinger Block I Platform Upgrades											
01-87-03-1510	Operational	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
Stinger Troop Proficiency Trainer											
01-87-03-1510	TBD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	2.6
Totals		21.0	13.5	17.4	22.0	27.8	26.3	27.6	34.4	0.0	189.9

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Stinger Block I Missile Upgrades 01-87-03-1510

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

DESCRIPTION / JUSTIFICATION:

The STINGER Block I Missile Upgrade materiel change incorporates hardware and software modifications to the STINGER-RMP missile system to increase overall missile performance in certain engagement scenarios and 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 which include Air-to-Air STINGER, AVENGER, and gripstocks used in shoulder-fired applications. This materiel change was recommended by the Air-to-Air Missile General Officer's Steering Committee as the near term solution to the STINGER-RMP deficiencies.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development is complete.

Begin Development	3rd Qtr, FY92
Production Qualification	4th Qtr, FY95
Software Critical Design Review	2nd Qtr, FY96
Software Performance Assessment	2nd Qtr, FY97

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	3020	390	390	390	390	390	529	175	175	175	180	180	180	181	237	237	237	237	272	272	272
Outputs	2240	390	390	390	390	390	390	390	529	175	175	175	180	180	180	181	237	237	237	237	272

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	272	241	240	241	240	242	242	242	243	230	230	230	228					11630
Outputs	272	272	272	241	240	241	240	242	242	242	243	230	230	230	228			11630

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 18 Months

Contract Dates:	FY 1999	DEC 1998	FY 2000	2 Qtr, FY00	FY 2001	2 Qtr, FY01
Delivery Date:	FY 1999	4 Qtr, FY00	FY 2000	4 Qtr, FY01	FY 2001	4 Qtr, FY02

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Stinger Block I Missile Upgrades 01-87-03-1510

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		34.5																		34.5
PROCUREMENT																				
Kit Quantity	5326		698		721		948		1088		962		969		918		0		11630	
Installation Kits		74.4		13.5		17.4		22.0		27.8		26.3		27.6		31.8				240.7
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware	"Installation of Hardware" cost is included in "Installation Kits" above.																			
FY 1998 & Prior Eqpt -- Kits	3020																		3020	
FY 1999 Eqpt -- Kits			1560																1560	
FY 2000 Eqpt -- Kits					1269														1269	
FY 2001 Eqpt -- Kits							715												715	
FY 2002 Eqpt -- kits									892										892	
FY 2003 Eqpt -- kits											1053								1053	
FY 2004 Eqpt -- kits													994						994	
FY 2005 Eqpt -- kits															966				966	
TC Equip-Kits																	1161		1161	
Total Installment	3020		1560		1269		715		892		1053		994		966		1161		11630	
Total Procurement Cost		74.4		13.5		17.4		22.0		27.8		26.3		27.6		31.8				240.7

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Block I Platform Upgrades 01-87-03-1510

MODELS OF SYSTEMS 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 programmable read only memory (EEPROM) 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. Without modifications, Block I missiles fired from these platforms will perform as Stinger-RMP missiles, negating the Block I missile improved performance.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development is complete.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs				614	597	514	587	577	635	511											
Outputs				614	597	514	587	577	635	511											

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		4035
Outputs																		4035

METHOD OF IMPLEMENTATION: Govt In-House ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 18 Months

Contract Dates:	FY 1999	No contract	FY 2000	No contract	FY 2001	No contract
Delivery Date:	FY 1999	3rd Qtr FY99	FY 2000	No delivery	FY 2001	No delivery

INDIVIDUAL MODIFICATION | Date February 1999

MODIFICATION TITLE (Cont): Stinger Block I Platform Upgrades 01-87-03-1510

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	4035																		4035	
Installation Kits		9.7																		9.7
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware			"Installation of Hardware" cost is included in "Installation Kits" above.																	
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits			1211																1211	
FY 2000 Eqpt -- Kits					2313														2313	
FY 2001 Eqpt -- Kits							511												511	
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment			1211		2313		511												4035	
Total Procurement Cost		9.7																		9.7

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Stinger Troop Proficiency Trainer

MODELS OF SYSTEMS AFFECTED: Manpads, Avenger, Bradley Linebacker

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. There are 320 deployed to units worldwide. The STPT is a lightweight, two man portable training system which uses computer generated graphics and sound to provide a realistic training environment for Stinger gunners. The gunner views a missile mounted display and reacts to pre-programmed scenarios with single or multiple threat 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. It is estimated that the first year of savings will pay for the STPT upgrade.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

This involves commercial off the shelf equipment; there is no development.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs									80	80	80	80						320
Outputs									80	80	80	80						320

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

Contract Dates:	FY 1999	No contract	FY 2000	No contract	FY 2001	No contract
Delivery Date:	FY 1999	No delivery	FY 2000	No delivery	FY 2001	No delivery

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Stinger Troop Proficiency Trainer

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity															320				320	
Installation Kits																2.6				2.6
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware			"Installation of Hardware" cost is included in "Installation Kits" above.																	
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																	320		320	
TC Equip-Kits																				
Total Installment																	320		320	
Total Procurement Cost															2.6					2.6

Exhibit P-40, Budget Item Justification Sheet	Date: February 1999
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 3 / Modification of Missles	P-1 Item Nomenclature: STINGER BLK II UPGRADES (C21400)
Program Elements for Code B Items:	Code:
Other Related Program Elements: Manpads, Avenger, Bradley Linebacker, Kiowa Warrior	

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	66.7	820.4	900.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	66.7	820.4	900.8
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	66.7	820.4	900.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION

The STINGER Block II Missile Upgrade is a pre-planned product improvement to the Stinger-RMP missile. The replacement of the existing Stinger infrared/ultraviolet seeker with the Block II's infrared focal plane array seeker significantly improves the missile. The Block II upgrade will add the following performance improvements: 2.5 times the acquisition range, engage rotary wing targets in clutter, engage UAV's, cruise missiles, and stealth fixed-wing targets below 10,000 feet, full night and degraded weather capability, advanced infrared counter measures capability, and extend the missile service life.

JUSTIFICATION

The January 1996 Stinger Guided Missile System Operational Requirements Document (ORD) states upgrades to Stinger are required to buy back required battlespace lost against the current and evolving threat, to counter , defeat, and destroy the future threat, and to extend Stinger's Capabilities necessary for accomplishment of new Army Operations doctrine. Stinger must allow for future growth to provide effective capability against evolving threats.

Exhibit P-40M Budget Item Justification Sheet										Date: February 1999	
Appropriation / Budget Activity/Serial No.: MISSILE PROCUREMENT / 3 / Modification of Missles					P-1 Item Nomenclature: STINGER Block II Upgrades (C21400)						
Program Elements for Code B Items			Code	Other Related Program Elements: Manpads, Avenger, Bradley Linebacker, Kiowa Warrior							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Stinger Block II Upgrades C21400											
TBD	Operational	0.0	0.0	0.0	0.0	0.0	0.0	13.7	66.7	820.4	900.8
Total		0.0	0.0	0.0	0.0	0.0	0.0	13.7	66.7	820.4	900.8

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Stinger Block II Upgrades

MODELS OF SYSTEMS AFFECTED: Avenger, Bradley Linebacker, Kiowa Warrior

DESCRIPTION / JUSTIFICATION:

The STINGER Block II Missile Upgrade is a pre-planned product improvement to the Stinger-RMP missile. The replacement of the existing Stinger infrared/ultraviolet seeker with the Block II's infrared focal plane array seeker significantly improves the missile. The Block II upgrade will add the following performance improvements: 2.5 times the acquisition range, engage rotary wing targets in clutter, engage UAV's, cruise missiles, and stealth fixed-wing targets below 10,000 feet, full night and degraded weather capability, advanced infrared counter measures capability, and extend the missile service life.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Milestone II Decision	4th Qtr, FY99
Engineering Manufacturing Development start	1st Qtr, FY00
Preliminary Design Review	1st Qtr, FY01
Critical Design Review	1st Qtr, FY02
Engr/Tech Test Start	1st Qtr, FY03
Low Rate Initial Production	1st Qtr, FY04

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs										87	88	88	88	348	349	349	9651	11048
Outputs												87	88	88	88	348	10349	11048

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 22 Months

Contract Dates:	FY 1999	no contract	FY 2000	no contract	FY 2001	no contract
Delivery Date:	FY 1999	no deliveries	FY 2000	no deliveries	FY 2001	no deliveries

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Stinger Block II Upgrades

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		33.2		5.9		22.2		21.9		40.2		57.1		50.9		21.7				253.2
PROCUREMENT																				
Kit Quantity														IPF/LLI	351		10697		11048	
Installation Kits														13.7		66.7		820.4		900.8
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																	11048		11048	
Total Installment																	11048		11048	
Total Procurement Cost														13.7		66.7		820.4		900.8

"Installation of Hardware" cost is included in "Installation Kits" above.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No:	P-1 Item Nomenclature:
MISSILE PROCUREMENT / 3 / Modification of Missles	AVENGER MODS (CE8710)

Program Elements for Code B Items:	Code:	Other Related Program Elements:
0203801A	A	C14900 AVENGER SYSTEM SUMMARY, C15200 AVENGER TRAINING DEVICES, C16000 AVENGER PEDESTAL MOUNTED STINGER (MYP), CAO260 AVENGER SPARES, CA0286 AVENGER MOD SPARES

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete*	Total Prog
Proc Qty												
Gross Cost	19.5	0.0	7.2	8.4	0.0	7.0	9.6	8.8	33.0	53.2	88.6	235.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	19.5	0.0	7.2	8.4	0.0	7.0	9.6	8.8	33.0	53.2	88.6	235.2
Initial Spares	1.0											1.0
Total Proc Cost	20.5	0.0	7.2	8.4	0.0	7.0	9.6	8.8	33.0	53.2	88.6	236.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: AVENGER is fielded in divisional and corps Short Range Air Defense (SHORAD) battalions and US Marine Corps units. The AVENGER system is a lightweight, highly mobile and transportable surface-to-air missile and .50 caliber machine gun system. Eight Stinger missiles and a .50 caliber machine gun are mounted on a heavy High Mobility Multi-purpose Wheeled Vehicle (HMMWV). The AVENGER is operated by a two-man crew for stationary or shoot-on-the-move defense against Unmanned Aerial Vehicles (UAV), cruise missiles, helicopters, and fixed-wing aircraft in all weather conditions.

JUSTIFICATION: A series of upgrades are required to enhance the performance of the Avenger System. The **Slew-To-Cue (STC)** upgrade accepts sensor track data from the Forward Area Air Defense Command, Control and Intelligence System (FAAD C2I) and automatically slews the AVENGER turret in azimuth and elevation, placing targets in the gunner's field of view. The STC provides a 55% increase in the number of engagements and a greater increase in the number of kills. The STC was approved by the Warfighting Rapid Acquisition Panel (WRAP) Council in Dec 96. Eighty units have been procured with prior years (98-99) and 577 in FY 00-05 for a total of 657 against a total requirement of 767. The **Automatic Video Tracker (AVT)** is redesigned to improve clutter tracking performance against low observable such as rotary wing aircraft and cruise missiles. This MOD also fixes an obsolescence problem, simplifies maintenance and reduces logistics burden. Development will take place in FY02 and 344 units will be procured from FY03 through FY05. The **Avenger Engineering Change Proposal (ECP) Forward Looking Infrared Radar(FLIR)** is integrated into current production line. A total of 82 FLIRs will be procured in FY05. The redesigned **Remote Control Unit (RCU)** accommodates new sensor package, eliminates obsolescence and enhances mobility by size and weight reduction. Development will take place in FY04 and procurement of 46 units will occur in FY05.

Exhibit P-40M Budget Item Justification Sheet										Date: February 1999	
Appropriation / Budget Activity/Serial No.: MISSILE PROCUREMENT / 3 / Modification of Missles						P-1 Item Nomenclature: AVENGER MODS (CE8710)					
Program Elements for Code B Items			Code	Other Related Program Elements							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
AVENGER SLEW-TO-CUE											
	OPERATIONAL	7.2	8.4	0.0	7.0	9.6	7.3	27.4	36.4	23.7	126.9
AVENGER VIDEO TRACKER											
TBD2	OPERATIONAL	0.0	0.0	0.0	0.0	0.0	1.5	5.6	5.8	4.4	17.2
AVENGER ECP FLIR											
TBD3	OPERATIONAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	20.8	29.6
REMOTE CONTROL UNIT											
TBD4	OPERATIONAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	39.6	42.0
Totals		7.2	8.4	0.0	7.0	9.6	8.8	33.0	53.4	88.6	215.7

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: AVENGER SLEW-TO-CUE

MODELS OF SYSTEMS AFFECTED: AVENGER

DESCRIPTION / JUSTIFICATION:

AVENGER is fielded in divisional and corps Short Range Air Defense (SHORAD) battalions and US Marine Corps units. The AVENGER system is a lightweight, highly mobile/transportable surface-to-air missile/gun weapon system mounted on a heavy High Mobility Multi-purpose Wheeled Vehicle (HMMWV). The AVENGER is operated by a two-man crew for stationary or shoot-on-the-move defense against Unmanned Aerial Vehicles (UAV), cruise missiles, helicopters, and fixed-wing aircraft in all weather conditions.
MODIFICATION: The Slew-to-cue (STC) upgrade accepts sensor track data from the FAADC2I and automatically slews the AVENGER turret in azimuth and elevation, placing targets in the gunner's field of view. The STC gives a 55% increase in the number of engagements and a greater increase in percent kills. The STC was approved by the WRAP Council in Dec 96 which provided $5.8M in FY 97 R&D funds for the Development/Prototype contract. The STC will be embedded into the AVENGER Fire Control Computer.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

FUNDING RECEIVED 10/97
LRIP/PROTOTYPE CONTRACT AWARD 13 MAR 98 (Funded with WRAP R&D provided by TRADOC)
DELIVERIES (PROTOTYPE AFCC) JUL-AUG 98 / LRIP QUANTITIES DEC 99
TESTING (PROTOTYPE STC/AFCC KITS) OCT 98 - FEB99
MSIII (PRODUCTION OPTION) Mar 99

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs								10	31	28					51			6	26		
Outputs								10	31	28					51			6	26		

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs		52		27	44	36	36	72									348	767
Outputs		52		27	44	36	36	72									348	767

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 7 Months

Contract Dates:	FY 1999	MAR 99	FY 2000	FY 2001	NOV 00
Delivery Date:	FY 1999	DEC 99	FY 2000	FY 2001	AUG 01

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): AVENGER SLEW-TO-CUE

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	24		56				40		50		49		195		243		110		767	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		3.8		7.0				4.6		6.4		5.4		23.9		30.4		14.1		95.5
Equipment, Nonrecurring																				
I&KP Training		0.2																		0.2
PQT/FAT/PCI/ES		0.3		0.6						0.9				0.4		0.5		0.5		3.2
Kit Refurbishment																				
Specs & Tech Support																				
Other																				
Project Management Support								0.8		0.4		0.6		0.7		2.0		2.4		7.0
Contractor Logistics Support		2.5						1.1		1.2		0.9		1.3		1.4		1.6		10.0
FBCB2								0.1												0.1
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	4	0.2																	4	0.2
FY 1999 Eqpt -- Kits			42	0.8															42	0.8
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits							28	0.5											28	0.5
FY 2002 Eqpt -- kits									51	0.7									51	0.7
FY 2003 Eqpt -- kits											32	0.3							32	0.3
FY 2004 Eqpt -- kits													79	1.0					79	1.0
FY 2005 Eqpt -- kits															188	2.1			188	2.1
TC Equip-Kits																	348	5.2	348	5.2
Total Installment	4	0.2	42	0.8			28	0.5	51	0.7	32	0.3	79	1.0	188	2.1	348	5.2	772	10.9
Total Procurement Cost		7.2		8.4				7.0		9.6		7.3		27.4		36.4		23.7		126.9

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: AUTOMATIC VIDEO TRACKER

MODELS OF SYSTEMS AFFECTED: Avenger

DESCRIPTION / JUSTIFICATION:

This redesigned Automatic Video Tracker (AVT) will improve clutter tracking performance (especially of low observables), minimize the adverse impacts of obsolescence, reduce logistics burden and simplify maintenance. The is part of the AVENGER Obsolescence Mitigation and Low Observable Enhancements. For the AVT and RCU, older configuration hardware taken from retrofitted AVENGERS will be provided to FP3 and 4 units to mitigate obsolescence problems.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development/Integration Effort FY02
Other status not available.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs		40	32	40	40	40	32	40									213	477
Outputs		40	32	40	40	40	32	40									213	477

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 6 Months

Contract Dates:	FY 1999	no contract	FY 2000	no contract	FY 2001	no contract
Delivery Date:	FY 1999	no deliveries	FY 2000	no deliveries	FY 2001	no deliveries

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): AVENGER VIDEO TRACKER TBD2

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E										2.0										2.0
PROCUREMENT																				
Kit Quantity											40		152		152		133		477	
Installation Kits												1.1		4.4		4.5		3.4		13.4
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Contractor Support/Spares												0.2		0.6		0.6		0.3		1.8
Program Management Spt												0.1		0.5		0.5		0.4		1.6
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits													112	0.1					112	0.1
FY 2005 Eqpt -- kits															152	0.2			152	0.2
TC Equip-Kits																	213	0.2	213	0.2
Total Installment													112	0.1	152	0.2	213	0.2	477	0.5
Total Procurement Cost												1.5		5.6		5.8		4.4		17.2

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: AVENGER ECP FLIR

MODELS OF SYSTEMS AFFECTED: Avenger

DESCRIPTION / JUSTIFICATION:

The ECP FLIR was integrated into the production line in FY 97. This upgraded FLIR was an ECP by the contractor based on the obsolescence of components and inactivation of supplier contractors. The Army now has two configurations in the field. The ECP fixes some failing components and provides better operational performance. The goal is to have one configuration and provide the ECP FLIR to the field for improved detection performance and identification against all targets. The ECP FLIR increases reliability by 30 percent.
For the ECP FLIR MOD, sufficient spares of old FLIRs are on hand for retrofit of a battalion at a time. The replaced units will be pulled in for retrofit and issued to the next battalion.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs							42	40									302	384
Outputs							42	40									302	384

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

Contract Dates:	FY 1999	no contract	FY 2000	no contract	FY 2001	no contract
Delivery Date:	FY 1999	no deliveries	FY 2000	no deliveries	FY 2001	no deliveries

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): AVENGER ECP FLIR

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity															122		355		477	
Installation Kits																6.9		16.5		23.4
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Contractor Support/Spares																1.0		2.2		3.1
Program Management Spt																0.8		1.9		2.7
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits															82	0.1			82	0.1
TC Equip-Kits																	302	0.3	302	0.3
Total Installment															82	0.1	302	0.3	384	0.4
Total Procurement Cost																8.8		20.8		29.6

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Remote Control Unit

MODELS OF SYSTEMS AFFECTED: Avenger

DESCRIPTION / JUSTIFICATION:

This is a redesign of the current Remote Control Unit to accommodate sensor package, eliminate obsolescence and enhance its mobility through size and weight reduction.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs							10	12									745	767
Outputs							10	12									745	767

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

Contract Dates:	FY 1999	no contract	FY 2000	no contract	FY 2001	no contract
Delivery Date:	FY 1999	no deliveries	FY 2000	no deliveries	FY 2001	no deliveries

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): AVENGER Remote Control Unit

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E														0.7						0.7
PROCUREMENT																				
Kit Quantity															46		721	29.5	767	29.5
Installation Kits																1.8				1.8
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Contractor Support/Spares																0.3		3.8		4.1
Program Management Spt																0.2		3.9		4.1
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits															46	0.1			46	0.1
TC Equip-Kits																	721	2.4	721	2.4
Total Installment															46	0.1	721	2.4	767	2.5
Total Procurement Cost																2.4		39.6		42.0

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 3 / Modification of Missles

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	547.0	0.5	61.6	62.1	68.3	60.8	64.1	56.5	59.1	60.7	0.0	1040.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	547.0	0.5	61.6	62.1	68.3	60.8	64.1	56.5	59.1	60.7	0.0	1040.7
Initial Spares	25.1	2.3	5.4	6.6	4.1	4.2	4.1	4.0	5.1			60.9
Total Proc Cost	572.1	2.8	67.0	68.7	72.4	65.0	68.2	60.5	64.2	60.7	0.0	1101.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: TOW Improved Target Acquisition System (ITAS) program is a technology insertion program to upgrade the current TOW Target Acquisition and Fire Control Subsystems. The TOW ITAS will provide improved target detection and acquisition range, improved probability of hit and enhanced fire control capabilities that will upgrade the anti armor capability of light forces using the TOW system. Technology insertion developed for ITAS horizontally applies to Bradley TOW upgrades. ITAS takes advantage of state-of-the-art Infrared Standard Advanced Dewar Assembly (SADA) II technology to detect and recognize enemy targets day or night at greater ranges and with greater resolution. With ITAS, the gunner can now use the full engagement range of TOW, increasing lethality and survivability against armor and other targets. The embedded training software serves to increase gunner proficiency over that of the previous TOW system. ITAS will support the U.S. Army mission of crisis response to regionally-based threats.

The missile modification Missile Ordnance Inhibit Circuit (MOIC) Materiel Change (MC) provides/installs MOICs (safety requirement) on Basic TOW, Improved TOW (ITOW) and TOW 2 heat missiles used for training. The MOIC precludes flight motor ignition and arming in the event of missile malfunction. The objectives of missile conversion and modification is to maintain a continuous source for training by utilizing older tactically obsolete missiles (Basic TOW, extended Range ITOW, and TOW 2), rather that procuring training missiles. Mod kit procurement will continue until these missiles are depleted.

Exhibit P-40M Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No.: MISSILE PROCUREMENT / 3 / Modification of Missles

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	Prior	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
MISSILE CONVERSION (HEAT TO PRACTICE)											
MC-1-82-03-3020	SAFETY	35.8	1.4	0.0	0.0	0.0	5.4	6.1	6.1	55.9	110.7
MISSILE MODIFICATION (MOIC) (No P3a Set)											
MC-1-82-03-3021	SAFETY	13.8	0.4	0.0	0.0	0.0	0.3	0.7	0.7	7.0	22.9
ITAS (IMPROVED TARGET ACQUISITION SYSTEM)											
MC-1-89-03-3028	OPERATIONAL	97.2	60.3	61.4	60.8	64.1	50.8	52.3	53.9	133.8	634.6
CAPS(COUNTER ACTIVE PROTECTIVE SYSTEMS)											
MC-1-98-03-3030	OPERATIONAL	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0	0.0	6.9
Totals		146.8	62.1	68.3	60.8	64.1	56.5	59.1	60.7	196.7	775.1

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: MISSILE CONVERSION (HEAT TO PRACTICE) MC-1-82-03-3020

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

DESCRIPTION / JUSTIFICATION:

To convert TOW Basic, ITOW and TOW 2 heat missiles to practice missiles and to 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:

N/A

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	60213	1500	1500																		
Outputs	58747	1116	1116	1117	1117																

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	1250	1250	1250	1250	1250	1250	761		1250	1250	1250	134					30006	105364
Outputs		1666	1667	1667		1250	1250	761		1250	1250	1384					26986	102344

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 12 Months PRODUCTION LEADTIME: 24 Months

Contract Dates:	FY 1999	N/A	FY 2000	N/A	FY 2001	N/A
Delivery Date:	FY 1999	N/A	FY 2000	N/A	FY 2001	N/A

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): MISSILE CONVERSION (HEAT TO PRACTICE) MC-1-82-03-3020

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		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									5000	5.4	3261	3.7	3884	4.4	30006	38.6	105364	74.4
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	60213	13.5	3000	1.4															63213	14.9
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits													5000	2.4					5000	2.4
FY 2004 Eqpt -- kits															3261	1.7			3261	1.7
FY 2005 Eqpt -- kits																	3884	2.0	3884	2.0
TC Equip-Kits																	26986	15.3	26986	15.3
Total Installment	60213	13.5	3000	1.4									5000	2.4	3261	1.7	30870	17.3	102344	36.3
Total Procurement Cost		35.8		1.4								5.4		6.1		6.1		55.9		110.7

INDIVIDUAL MODIFICATION Date February 1999

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

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

DESCRIPTION / JUSTIFICATION:

TOW ITAS Program is a technology insertion program to upgrade the current TOW Target Acquisition and Fire Control Subsystems. ITAS will provide improved target detection and acquisition range, improved probability of hit and enhanced fire control capabilities that will upgrade the anti-armor capability of light forces using the TOW system. ITAS will support the U.S. Army mission of crisis response to regionally based threats.

Two kits are used for testing.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	PLANNED	ACCOMPLISHED
LRIP II Production Decision	Feb 98	Mar 98
FUE	Sep 98	Sep 98
Milestone III Decision	May 99	
(Anticipate 5 year multiyear procurement FY 99-03)		

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	20	2	1		20	50	4	4	22	30	30	30	29	27	27	28	30	31	30	32	36
Outputs	8					60				60			60	40		52		60		60	

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	36	36	34	30	29	26	26	27	30	30	30	30	30	30	20		236	1163
Outputs	60		56		36	72	12	12		68		68			68		311	1163

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 10 Months PRODUCTION LEADTIME: 18 Months

Contract Dates:	FY 1999	3Q99	FY 2000	1Q00	FY 2001 1Q01
Delivery Date:	FY 1999	3Q00	FY 2000	3Q01	FY 2001 3Q02

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

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		105.0		0.2																105.2
PROCUREMENT																				
Kit Quantity	109		96		111		121		144		112		116		120		236		1165	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		86.1		46.4		49.3		49.6		57.4		45.1		46.3		47.5		119.9		547.6
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data		0.8		0.3		0.1		0.1		0.1		0.1		0.1		0.1		0.2		1.9
Training Equipment		7.4		4.0		5.1		5.5		6.1		4.9		5.2		5.5		11.3		55.0
Support Equipment				7.0		5.8		4.9												17.7
Other		1.2		1.1		0.9		0.3		0.3		0.4		0.4		0.4		1.1		6.1
Interim Contractor Support		1.6		1.5																3.1
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	8	0.1			60	0.2	39	0.1											107	0.4
FY 1999 Eqpt -- Kits							81	0.3	15										96	0.3
FY 2000 Eqpt -- Kits									77	0.2	34	0.1							111	0.3
FY 2001 Eqpt -- Kits											86	0.2	35	0.1					121	0.3
FY 2002 Eqpt -- kits													81	0.2	63	0.2			144	0.4
FY 2003 Eqpt -- kits															69	0.2	43	0.1	112	0.3
FY 2004 Eqpt -- kits																	116	0.3	116	0.3
FY 2005 Eqpt -- kits																	120	0.3	120	0.3
TC Equip-Kits																	236	0.6	236	0.6
Total Installment	8	0.1			60	0.2	120	0.4	92	0.2	120	0.3	116	0.3	132	0.4	515	1.3	1163	3.2
Total Procurement Cost		97.2		60.3		61.4		60.8		64.1		50.8		52.3		53.9		133.8		634.6

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: CAPS(COUNTER ACTIVE PROTECTIVE SYSTEMS) MC-1-98-03-3030

MODELS OF SYSTEMS AFFECTED: TOW Missile System (C59300)

DESCRIPTION / JUSTIFICATION:

To procure and apply Counter Active Protection Systems (CAPS) modification kits to a contingency stock of TOW 2B missiles. The CAPS modification will provide the TOW 2 missile with the capability to counter the Active Protection Systems (APS) currently being deployed on threat armor systems.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

N/A

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs												500	500								
Outputs												250	750								

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		1000
Outputs																		1000

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 12 Months PRODUCTION LEADTIME: 18 Months

Contract Dates: FY 1999 FY 2000 1Q00 FY 2001

Delivery Date: FY 1999 FY 2000 3Q01 FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): CAPS(COUNTER ACTIVE PROTECTIVE SYSTEMS) MC-1-98-03-3030

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity					1000	6.9													1000	6.9
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost						6.9														6.9

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 3 / Modification of Missles

P-1 Item Nomenclature: MLRS MODS (C67500)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	224.0	12.8	0.6	2.2	6.7	16.7	6.3	61.3	6.2	17.6	181.1	535.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	224.0	12.8	0.6	2.2	6.7	16.7	6.3	61.3	6.2	17.6	181.1	535.5
Initial Spares	12.8	1.8		0.6	0.5	0.8	0.9	5.8	1.4	6.0	47.5	78.0
Total Proc Cost	236.8	14.7	0.6	2.8	7.1	17.5	7.2	67.1	7.6	23.6	228.6	613.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Modification kits are procured for previously manufactured Multiple Launch Rocket System (MLRS) launchers and the associated training and ground support equipment. The following page provides a list of approved modifications.

JUSTIFICATION: The FY00 program funds Fire Suppression Change, an Interim Improved Position Determining System Launcher, Obsolescence Mitigation/Engineering Change Proposal Reliability Integration, and Joint Technical Architecture-Army.

Exhibit P-40M Budget Item Justification Sheet											Date: February 1999
Appropriation / Budget Activity/Serial No.: MISSILE PROCUREMENT / 3 / Modification of Missles					P-1 Item Nomenclature: MLRS MODS (C67500)						
Program Elements for Code B Items			Code		Other Related Program Elements						
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Transmission Electronic Controller (TEC)											
1-94-03-0522	Operational	33.0	0.6	0.7	1.2	0.9	1.5	1.6	1.6	1.9	43.0
Fire Suppression Change											
1-94-03-0525	Safety	1.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.9
Interim Improved Position Determining System (IPDS) Launcher											
1-94-03-0528	Operational	19.6	1.3	1.3	1.3	1.4	1.4	1.4	0.0	0.0	27.7
Improved Electronics Box (IEB)											
1-97-03-0536	Operational	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Joint Technical Architecture-Army (JTA-A)											
1-98-03-0537	Operational	0.0	0.0	1.4	0.8	0.0	0.0	0.0	0.0	0.0	2.2
Digital Radio Upgrade											
1-98-03-0539	Operational	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Improved Communications Processor (ICMP)											
1-98-03-0540	Operational	0.0	0.0	1.0	0.6	0.0	0.0	0.0	0.0	0.0	1.7
Streamlined Technology Enhancement Program (STEP)											
1-98-03-0541	Operational	0.0	0.0	0.0	10.8	1.2	43.0	0.4	1.3	0.0	56.7
Engine/Transmission Diag (No P3a Set)											
1-98-03-0542	Operational	0.0	0.0	0.0	0.0	0.0	13.3	0.0	0.0	0.0	13.3
Executive Processor (EP) Obsol. (No P3a Set)											
1-98-03-0543	Operational	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9	44.6	55.5
Obsolescence Mitigation/ECP Reliability Integration											
1-98-03-Obsc	Operational	4.3	0.0	1.5	1.9	2.8	2.1	2.8	3.8	134.6	153.8
Totals		58.6	2.2	6.7	16.7	6.3	61.3	6.2	17.6	181.1	356.7

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Transmission Electronic Controller (TEC) 1-94-03-0522

MODELS OF SYSTEMS AFFECTED: MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)

DESCRIPTION / JUSTIFICATION:

The TEC, which is an automatic electronically controlled transmission, upgrades the previous hydromechanical transmission. The benefits of the TEC modification are increased power availability, ability to tow in neutral, decreased maintenance, improvements in slope capability, shift synchronism, fuel consumption, cold temperature performance, and maneuverability in restricted areas. Through the modification of the MLRS fleet of vehicles, this will allow a commonality of transmissions between all vehicle subsystems for the M270 MLRS. Additional modifications are required to improve reliability for the M993 Carrier for MLRS usage. The TEC II program will replace the Electronics Assembly (EA) and the Interface Assembly (IA) with an improved remanufactured version that has reduced vibration and better steering control inputs to the transmission. This program is an ownership cost reduction initiative and is planned for expedient application. The TEC III program will procure new reinforced hardware for installation into the transmission during remanufacture. This ownership cost reduction initiative will be implemented to the field as the M270A1 Launchers are fielded.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development complete - incorporated into Engineering Release Record

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	1632				52		54				71				90				140		
Outputs	773	95	95	95	94	120	120	120	120	26	26	27	27	17	18	18	18	22	22	22	24

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs		145				145				125				35				2489
Outputs	35	35	35	35	36	36	36	37	36	36	36	37	31	31	31	32	35	2489

METHOD OF IMPLEMENTATION: Contractor/Depot ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 3 Months

Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Transmission Electronic Controller (TEC) 1-94-03-0522

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	1632	25.4	52	0.5	54	0.5	71	0.7	90	0.9	140	1.5	145	1.6	145	1.6	160	1.9	2489	34.6
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Note: Installation will be concurrent with M270A-1 launcher remanufacture program.																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	773	7.6	379	0.1	480	0.2													1632	7.9
FY 1999 Eqpt -- Kits							28	0.5											28	0.5
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	773	7.6	379	0.1	480	0.2	28	0.5											1660	8.4
Total Procurement Cost		33.0		0.6		0.7		1.2		0.9		1.5		1.6		1.6		1.9		43.0

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Fire Suppression Change 1-94-03-0525

MODELS OF SYSTEMS AFFECTED: MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)

DESCRIPTION / JUSTIFICATION:

The purpose of this modification is to comply with Department of Defense Directive 6050.9 for the elimination of chloroflurocarbons and halons. The objective of this modification is to identify and eliminate all ozone depleting chemicals and all ozone depleting substances. The initial phase of this program directs modification of mounting brackets to allow CO2 bottles to be used in lieu of the current 2.75 pound halon bottles. Swap-out for the hand-held bottles is being done by the U.S. Army Tank-Automotive and Armaments Command and began 2Q97. The second phase will direct the modification and/or conversion of the 7 pound engine compartment halon bottle to an alternative substance. FY98 procured fixed fire extinguishers with a 12 month production lead time.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development complete - incorporated into production.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	858	100	100	150	151	80	80	80	28												
Outputs	757	55	185	182	180	67	67	67	67												

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		1627
Outputs																		1627

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 1 Months

Contract Dates: FY 1999 FY 2000 FY 2001

Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Fire Suppression Change 1-94-03-0525

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring	1627	1.3																	1627	1.3
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	757	0.3	602	0.2	268	0.1													1627	0.6
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	757	0.3	602	0.2	268	0.1													1627	0.6
Total Procurement Cost		1.6		0.2		0.1														1.9

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Interim Improved Position Determining System (IPDS) Launcher 1-94-03-0528

MODELS OF SYSTEMS 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 incorporate a new requirement to fire the Block IA, Army Tactical Missile System (TACMS). The Block IA missile will be fielded in 1QFY98 and will require Global Positioning System (GPS) interface at time of launch. This modification must be accelerated because the pre-planned product improvement for GPS was not planned until the fielding of the Position Navigational Unit with the Improved Fire Control System in FY 00. The modification will incorporate the 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 is included in the cost of the modification kit. The remaining funds from FY 98 - FY 04 is to provide interim contractor support.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Will be integrated into launchers as an interim program in support of Army TACMS Block 1A.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	35																				
Outputs	35																				

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		35
Outputs																		35

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

Contract Dates: FY 1999 FY 2000 FY 2001

Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Interim Improved Position Determining System (IPDS) Launcher 1-94-03-0528

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment	35	18.0																	35	18.0
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support		1.6		1.3		1.3		1.3		1.4		1.4		1.4						9.7
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost		19.6		1.3		1.3		1.3		1.4		1.4		1.4						27.7

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Improved Electronics Box (IEB) 1-97-03-0536

MODELS OF SYSTEMS AFFECTED: MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)

DESCRIPTION / JUSTIFICATION:

This programs calls for modification of the wiring within the IEB. Currently during operations, the M270 primary power supply system will indicate false Built-In-Test (BIT) warnings due to low voltage levels of the system batteries. These alleged failures result in unnecessary supply transactions relating to turn-in(s) known as No Evidence of Failure (NEOF). Through the modification of the K3 Relay and wiring, this program would reduce the occurrence of failures and make significant savings in Operation and Support costs. This program is an ownership cost reduction initiative.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development complete - Incorporated into current production.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs		200	300	300	57																
Outputs		100	200	300	257																

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		857
Outputs																		857

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 8 Months PRODUCTION LEADTIME: 8 Months

Contract Dates: FY 1999 FY 2000 FY 2001

Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Improved Electronics Box (IEB) 1-97-03-0536

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	857	0.1																	857	0.1
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits			857	0.1															857	0.1
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment			857	0.1															857	0.1
Total Procurement Cost		0.1		0.1																0.2

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Joint Technical Architecture-Army (JTA-A) 1-98-03-0537

MODELS OF SYSTEMS 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. It provides the M270A1 Launcher with soldier-computer interface, external communication interfaces, and internal system interfaces. It will also provide a standard for information security as well as the Department of the Army FORCE XXI directed situational awarness enhancements to the soldier, ultimately reducing the changes of fratricide on the battlefield. Quantities reflected in FY 00 is to retrofit the M270A1 LRIP in order to provide the soldier a new fire control panel to be compatible with the multiyear configuration.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development in progress - Requirement for First Digitized Division

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs							32			13											
Outputs											45										

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		45
Outputs																		45

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

Contract Dates: FY 1999 FY 2000 Mar 00 FY 2001 Dec 01

Delivery Date: FY 1999 FY 2000 FY 2001 Mar 01

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Joint Technical Architecture-Army (JTA-A) 1-98-03-0537

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits					32	1.4	13	0.6											45	1.9
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits							32	0.2											32	0.2
FY 2001 Eqpt -- Kits							13	0.1											13	0.1
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment							45	0.2											45	0.2
Total Procurement Cost						1.4		0.8												2.2

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Digital Radio Upgrade 1-98-03-0539

MODELS OF SYSTEMS AFFECTED: MULTILE LAUNCHER ROCKET SYSTEM (MLRS)

DESCRIPTION / JUSTIFICATION:

Phase II of the Joint Technical Architecture - Army (JTA-A) program requires an additional radio to be used for a digital net. A selected number of M270A1 Launchers will require retrofit with an upgraded Single Channel Ground Airborne Radio System (SINCGARS) version.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development on the SINCGARS AN/VRC-92D is complete.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs							45														
Outputs											45										

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		45
Outputs																		45

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

Contract Dates: FY 1999 FY 2000 FY 2001

Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Digital Radio Upgrade 1-98-03-0539

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring					45	0.8													45	0.8
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits							45	0.0											45	0.0
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment							45	0.0											45	0.0
Total Procurement Cost						0.8		0.0												0.8

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Improved Communications Processor (ICMP) 1-98-03-0540

MODELS OF SYSTEMS AFFECTED: MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)

DESCRIPTION / JUSTIFICATION:

The current ICMP does not adhere to ICD 11508910, Level 4 for national protocol. This software glitch causes digital network problems, not allowing everyone to communicate in the same time period. The current plan is for all ICMPs to be swapped out. The Comms Controller Circuit Card Assemblies in the ICMP will be modified correcting the "Net Access Delay" problem.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development in progress.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs							800				500										
Outputs								800				500									

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		1300
Outputs																		1300

METHOD OF IMPLEMENTATION: Depot ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 3 Months

Contract Dates: FY 1999 FY 2000 FY 2001

Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Improved Communications Processor (ICMP) 1-98-03-0540

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity					800	0.4	500	0.3											1300	0.7
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits					800	0.6													800	0.6
FY 2001 Eqpt -- Kits							500	0.4											500	0.4
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment					800	0.6	500	0.4											1300	1.0
Total Procurement Cost						1.0		0.6												1.7

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Streamlined Technology Enhancement Program (STEP) 1-98-03-0541

MODELS OF SYSTEMS AFFECTED: MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)

DESCRIPTION / JUSTIFICATION:

The STEP will provide for technology insertion and producibility changes to the M270A1 Launcher. This modification provides a lower cost line replaceable unit of the Fire Control System and will include objectives of technology insertion, reduced Operations & Support costs, obsolescence mitigation, and compliance with anti-spoofing requirements for Global Positioning System downlink.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development is being initiated.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs											20				2				76		
Outputs																5				10	

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		98
Outputs			20				63											98

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

Contract Dates: FY 1999 FY 2000 FY 2001 Mar 01

Delivery Date: FY 1999 FY 2000 FY2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Streamlined Technology Enhancement Program (STEP) 1-98-03-0541

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity							20	10.8	2	1.1	76	42.8							98	54.8
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits									5	0.1	10	0.2	5	0.1					20	0.4
FY 2002 Eqpt -- kits													2	0.0					2	0.0
FY 2003 Eqpt -- kits													13	0.3	63	1.3			76	1.5
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment									5	0.1	10	0.2	20	0.4	63	1.3			98	1.9
Total Procurement Cost								10.8		1.2		43.0		0.4		1.3				56.7

INDIVIDUAL MODIFICATION Date February 1999

MODIFICATION TITLE: Obsolescence Mitigation/ECP Reliability Integration 1-98-03-Obsc

MODELS OF SYSTEMS AFFECTED: MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)

DESCRIPTION / JUSTIFICATION:

Technology obsolescence is dictating the replacement of many launcher components. Because of rapid electronic obsolesence, 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. The funding on this program will procure modification kits which will incorporate improved components necessary to replace parts no longer available. In addition, this modification will reestablish the MLRS baseline at the optimal configuration for integration of Improved Fire Control System and Improved Launcher Mechanical System (MC No. 0519 and 0526) by aiding in 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. The removal of minimal or poor performance components that have been identified is considered necessary to assure configuration control and compatibility within technical interfaces.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Will incorporate ongoing obsolescence analysis and determination into production.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

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

Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 1999

MODIFICATION TITLE (Cont): Obsolescence Mitigation/ECP Reliability Integration 1-98-03-Obsc

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		4.3				1.5		1.8		2.8		2.0		2.8		3.8		134.6		153.6
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other (BCIS)						0.0		0.1		0.0		0.1								0.2
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost		4.3				1.5		1.9		2.8		2.1		2.8		3.8		134.6		153.8

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 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 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	9.4	23.6	19.0	29.0	30.1	38.4	35.1	36.6	205.1	426.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	9.4	23.6	19.0	29.0	30.1	38.4	35.1	36.6	205.1	426.3
Initial Spares												
Total Proc Cost	0.0	0.0	9.4	23.6	19.0	29.0	30.1	38.4	35.1	36.6	205.1	426.3
Flyaway U/C												
Wpn Sys Proc U/C												

Description: Provides for 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 (SMA) activity of the Defense Business Operations Fund. To provide initial support, funds are normally required in the same year that end items are fielded. Initial spares breakout:

SYSTEM	FY 1998	FY 1999	FY 2000	FY 2001
Javelin	0	4.7	4.5	6.7
MLRS	0.3	6.8	6.3	10.3
ATACMS/ATACMS BAT	0.9			1.4
Patriot Mods	2.7	4.9	3.7	2.7
Avenger				2.9
ITAS/TOW Mods	5.4	6.6	4.1	4.2
MLRS Mods		0.6	0.5	0.8
Total	9.4	23.6	19.0	29.0

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 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 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	364.5	6.2	1.0	2.5	2.4	2.4	2.5	2.5	2.5	2.6	0.0	389.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	364.5	6.2	1.0	2.5	2.4	2.4	2.5	2.5	2.5	2.6	0.0	389.2
Initial Spares												
Total Proc Cost	364.5	6.2	1.0	2.5	2.4	2.4	2.5	2.5	2.5	2.6	0.0	389.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The Air Defense Targets program provides fixed wing, rotary wing, ballistic and towed targets, target control systems and ancillary equipment for worldwide active Army and reserve component air defense training consisting of guns live fire and precision gunnery system (PGS) training, quality assurance, lot acceptance, production qualification, and first article tests.

During the budget years, only 1/5th scale Remotely Piloted Vehicle Target (RPVT) and ancillary hardware consisting of scoring equipment and control systems in support of gun and PGS training will be procured.

JUSTIFICATION:

In support of soldier training, targets are provided to support fielded AVENGER, MANPADS, AIR-TO-AIR STINGER, PATRIOT, Bradley STINGER Fighting Vehicle (BSFV) and LINEBACKER. Major items of target hardware which support or will support soldier training include MQM-107, Radio Controlled Miniature Aerial Target (RCMAT), Ballistic Aerial Target System (BATS), 1/5th Scale RPVT, ballistic missile target, towed training targets, target control systems and ancillary equipment. Training requirements are generated by DA major field commands, Training Centers, and Division Level Commands. These field requirements have been scrubbed against fielding and force restructuring plans, and are consistent with approved training doctrine.

Exhibit P-40, Budget Item Justification Sheet	Date: February 1999
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 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 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.9	0.9	1.0	1.0	1.0	0.9	1.0	1.0	0.0	7.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	1.0	0.9	1.0	1.0	1.0	0.9	1.0	1.0	0.0	7.8
Initial Spares												
Total Proc Cost	0.0	0.0	1.0	0.9	1.0	1.0	1.0	0.9	1.0	1.0	0.0	7.8
Flyaway U/C												
Wpn Sys Proc U/C												

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

JUSTIFICATION: Funding is required for procurement of tool and shop sets to support the following systems:

MLRS
TOW
AVENGER

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 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 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.5	0.0	14.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.5	0.0	14.6
Initial Spares												
Total Proc Cost	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.5	0.0	14.6
Flyaway U/C												
Wpn Sys Proc U/C												

Description: The Missile Demilitarization Program provides for the demilitarization of the U.S. Army missiles and missile components that are obsolete or excess to Army requirements following the guidelines of the Resource Conservation and Recovery Act.

Justification: The backlog of missiles requiring demilitarization is a growing concern of the Department of the Army. Changes during the past few years in the world wide political environment have resulted in drastic changes in military strategies. Reduced requirements of prepositioned military forces, retrograde of weapon system assets from Europe and major changes in war reserve planning have placed a tremendous strain on the CONUS wholesale storage base. Currently there are some 212,000 missiles/rocket motors that require demilitarization. Specifically, the funding in FY 00/01 will continue the process of demilitarization of priority one (obsolete, excess, environmental concern and using valuable storage space) missiles, i.e., SHILLELAGH, NIKE-HERCULES, and HAWK.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 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 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	598.4	1.7	3.3	3.2	3.2	3.2	3.4	3.4	3.5	3.6	0.0	626.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	598.4	1.7	3.3	3.2	3.2	3.2	3.4	3.4	3.5	3.6	0.0	626.8
Initial Spares												
Total Proc Cost	598.4	1.7	3.3	3.2	3.2	3.2	3.4	3.4	3.5	3.6	0.0	626.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: This program provides for Production Support and Equipment Replacement (PSR) of Government owned equipment used in production and production testing of missile systems or missile components. Funds are used to establish, modernize, expand or replace Army-owned industrial facilities.

JUSTIFICATION: The FY00 and FY01 request includes above routine maintenance on real property, replacement/rehabilitation of existing equipment or instrumentation and modernization of test facilities at the Redstone Arsenal Technical Test Center and White Sands Missile Range. It is also essential in sustaining the Army's missile warhead production capability, eliminating safety hazards, etc., at the Iowa Army AMMO Plant.