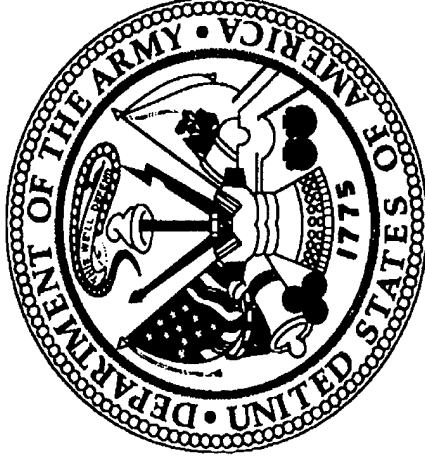


DEPARTMENT OF THE ARMY

Procurement Programs



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Committee Staff Procurement Backup Book
FY 2001 Budget Estimate

MISSILE PROCUREMENT, ARMY

APPROPRIATION

February 2000

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Index for MISSILE PROCUREMENT, ARMY

Blin	Nomenclature	SSN	Filename	Page Number
1	P-1 EXHIBIT			P1-1
2	AVENGER SYSTEM SUMMARY	C14900	28600147.01P	1
3	HELLFIRE SYS SUMMARY	C70000	21338139.01P	7
4	HELLFIRE SYS SUMMARY (ADV PROC)	C70000	21339139.01P	19
5	JAVELIN (AAWS-M) SYSTEM SUMMARY	CC0007	20648139.01P	22
6	JAVELIN (AAWS-M) (ADV PROC)	CC0007	20649139.01P	28
7	MLRS ROCKET	C65400	259001~1.01P	29
8	MLRS LAUNCHER SYSTEMS	C65900	26100139.01P	34
9	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM	C98510	26472139.01P	41
10	ATACMS BLK II SYS SUMMARY	CA6101	26800139.01P	47
11	MULTI PURPOSE INDV MUN	C09100	26900147.01P	55
12	MULTI PURPOSE INDV MUN (ADV PROC)	C09100	26901147.01P	57
13	PATRIOT MODS	C50700	20962121.01P	60
14	STINGER MODS	-C2000	22684147.01P	74
15	AVENGER MODS	CE8710	22690147.01P	80
16	ITAS/TOW MODS	C61700	23972139.01P	84
17	MLRS MODS	C67500	26552139.01P	92
18	SPARES AND REPAIR PARTS	CA0250	21242107.01P	111
19	AIR DEFENSE TARGETS	C93000	212431~1.01P	112
20	ITEMS LESS THAN \$5.0M (MISSILES)	CL2000	23902147.01P	115
21	MISSILE DEMILITARIZATION	HL2000	24094147.01P	117
22	PRODUCTION BASE SUPPORT	CA0100	24662144.01P	119

DEPARTMENT OF THE ARMY
2001 PROCUREMENT PROGRAM

EXHIBIT P-1
February 2000

Appropriation: **MISSILES**

Activity: 2. **OTHER MISSILES**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99			FY 00			FY 01		
				QTY	COST	QTY	COST	QTY	COST	QTY	COST	COST
				(7)	(8)	(9)	(10)	(11)	(12)			
(1)	(2)	(3)	(4)									
	SURFACE-TO-AIR MISSILE SYSTEM											
1	AVENGER SYSTEM SUMMARY (C14900) *			15	34,684	15	34,216	7	29,801			
	SUB-ACTIVITY TOTAL				34,684		34,216		29,801			
	AIR-TO-SURFACE MISSILE SYSTEM											
2	HELLFIRE SYS SUMMARY (C70000) LESS: ADVANCE PROCUREMENT (PY)	A		2,000	308,335	2,200	305,459 -11,598	2,200	296,962 -11,599			
					308,335		293,861		285,363			
3	HELLFIRE SYS SUMMARY (C70000) ADVANCE PROCUREMENT (CY)				44,275							
	SUB-ACTIVITY TOTAL				352,610		293,861		285,363			
	ANTI-TANK/ASSAULT MISSILE SYSTEM											
4	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007) LESS: ADVANCE PROCUREMENT (PY)			3,569	363,364 -25,613	2,525	304,615	3,754	387,959 -15,711			
					337,751		304,615		372,248			
5	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007) ADVANCE PROCUREMENT (CY)						40,000					

DEPARTMENT OF THE ARMY
2001 PROCUREMENT PROGRAM

EXHIBIT P-1
February 2000

Appropriation: **MISSILES**

Activity: 2. **OTHER MISSILES**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
				(7)	(8)	(9)	(10)	(11)	(12)
6	MLRS ROCKET (C65400)						3,747		9,413
7	MLRS LAUNCHER SYSTEMS (C66400) LESS: ADVANCE PROCUREMENT (PY)			24	121,134	39	137,507	66	188,689
					121,134		137,507		188,689
8	ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)	B		96	90,586	110	90,777		15,044
9	ATACMS/BAT (CA6101)	A		24	149,675	48	228,051	55	230,334
10	MULTI PURPOSE INDV MUN (C09100)								
11	MULTI PURPOSE INDV MUN (C09100) ADVANCE PROCUREMENT (CY)								3,547
	SUB-ACTIVITY TOTAL				699,146		804,697		819,275
	ACTIVITY TOTAL				1,086,440		1,132,774		1,134,439

DEPARTMENT OF THE ARMY
2001 PROCUREMENT PROGRAM

EXHIBIT P-1
February 2000

Appropriation: **MISSILES**

Activity: 3. **MODIFICATIONS**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99			FY 00			FY 01		
				QTY	COST	(7)	QTY	COST	(8)	QTY	COST	(12)
(1)	(2)	(3)	(4)	(7)	(8)	(7)	(9)	(10)	(11)	(12)		
	MODIFICATIONS											
12	PATRIOT MODS (C50700)				14,188			49,630			22,929	
13	STINGER MODS (C20000)				13,416			21,858			21,838	
14	AVENGER MODS (CE8710)				8,349			4,197			6,828	
15	ITAS/TOW MODS (C61700)				62,998			67,704			64,562	
16	MLRS MODS (C67500)				2,767			6,596			16,499	
	SUB-ACTIVITY TOTAL				101,718			149,985			132,656	
	ACTIVITY TOTAL				101,718			149,985			132,656	

DEPARTMENT OF THE ARMY
2001 PROCUREMENT PROGRAM

EXHIBIT P-1
February 2000

Appropriation: **MISSILES**

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

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(7)	(8)	(9)	(10)	(11)	(12)
17	**SPARES AND REPAIR PARTS**								
	SPARES AND REPAIR PARTS (CA0250)				18,762		18,835		20,785
	SUB-ACTIVITY TOTAL				18,762		18,835		20,785
	ACTIVITY TOTAL				18,762		18,835		20,785

Appropriation: **MISSILES**

Activity: 5. SUPPORT EQUIPMENT AND FACILITIES**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(7)	(8)	(9)	(10)	(11)	(12)
	SUPPORT EQUIPMENT AND FACILITIES								
18	AIR DEFENSE TARGETS (C93000)				2,512		2,352		2,394
19	ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)				914		981		969
20	MISSILE DEMILITARIZATION (HL2000)				1,453		1,385		1,341
21	PRODUCTION BASE SUPPORT (CA0100)				3,229		3,192		3,144
22	CLOSED ACCOUNT ADJUSTMENT				307				
	SUB-ACTIVITY TOTAL				8,415		7,910		7,848
	ACTIVITY TOTAL				8,415		7,910		7,848
	APPROPRIATION TOTAL				1,215,335		1,309,504		1,295,728

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:						Date: February 2000						
MISSILE PROCUREMENT / 2 / Other Missiles						P-1 Item Nomenclature: AVENGER SYSTEM SUMMARY (C14900)						
Program Elements for Code B Items:						Other Related Program Elements: C15200 AVENGER TRAINING DEVICES, C16000 AVENGER PED MT STINGER (MYP), CA0260 AVENGER SPARES, CA0266 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	7	10	23	73	68	107	1184
Gross Cost	935.1	62.4	0.0	34.7	34.2	29.8	34.3	60.2	130.3	120.8	379.2	1820.9
Less PY Adv Proc	122.9											122.9
Plus CY Adv Proc	122.9											122.9
Net Proc (P-1)	935.1	62.4	0.0	34.7	34.2	29.8	34.3	60.2	130.3	120.8	379.2	1820.9
Initial Spares	60.9					2.9	2.9	5.9	2.0	2.0	53.5	130.2
Total Proc Cost	996.0	62.4	0.0	34.7	34.2	32.7	37.2	66.1	132.3	122.8	432.7	1951.1
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; 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 the standard unmodified Basic Stinger, the Stinger-POST (Passive Optical Seeker Technique) or Stinger-RMP (Reprogrammable Micro Processor) missile rounds, and the high rate of fire .50 caliber machine gun. The Avenger fills the Line-of-Sight Rear (LOS-R) role in Forward Area Air Defense Systems (FAADS).												
JUSTIFICATION: The FY 01 program procures 7 additional Avenger systems. The 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 the upgunning of the active Army units are required to meet Total Army Force requirements and to support the National Strategy. By upgunning, 12 fire units are added to approved "A-Series" Table of organization and Equipment (Conservative Heavy Division) units. Funding will provide for standardization of Air Defense Artillery platoons, increases in division night-fighting capability, and a reduction in force structure (removal of Man Portable Air Defense System (MANPADS) teams).												

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 2000		
Cost Elements			FY 98			FY 99			FY 00			FY 01		
			TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
AVENGER (PED MT STINGER) (MYP)														
Hardware-Recurring														
Turret Assembly						16,392	15	1,093	16,392	15	1,093	10,038	7	1,434
Sub-Total Hardware Production														
Other Hardware						16,392	15	1,093	16,392	15	1,093	10,038	7	1,434
ECU/PPU						1,257						327		
Std Veh Mtd Launcher (SVML) Army						6,882						1,650		
STC/AFCC						1,702			1,702			761		
Captive Flight Trainers						121						372		
HMMWV						764			775			368		
FBCB2												943		
Other GFE						171			174			82		
Sub-Total Other Hardware						10,897	15	726	2,651	15	177	4,503	7	643
Total Driveaway						27,289	15	1,819	19,043	15	1,270	14,541	7	2,077
Support Cost														
Support Equipment									2,065			4,770		
Training Equipment														
Contractor Engineering & Fielding Support						2,787			3,695			2,942		
Government Engineering						4,608			4,767			4,118		
Equip for Upgun & Cascaded Units									2,582			3,187		
ECU/PPU Kits for Fld Units									1,300					
Fielding									764			243		
Sub-Total Support Cost						7,395			15,173			15,260		
Gross P-1 End Cost														
Less: Prior Year Adv Proc						34,684			34,216			29,801		
Net P-1 Full Funding Cost														
Plus P-1 CY Adv. Proc						34,684			34,216			29,801		
Other Non P-1 Costs														
Initial Spares														
MODS						8,349			4,197			2,856		
												6,828		
TOTAL						43,033			38,413			39,485		

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2000		
Appropriation / Budget Activity/Serial No:			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 \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
FY 97			Boeing, Huntsville, Alabama Boeing, Huntsville, Alabama Boeing, Huntsville, Alabama Boeing, Huntsville, Alabama	SSM-6/FP SS/FP SS/FP SS/FP	MICOM AMCOM AMCOM AMCOM	Dec-96 Jun-99 Dec-99 Nov-00	May-97 Jul-01 Dec-01 May-02	93 15 15 7	379 1,093 1,093 1,434	yes yes yes yes		
FY 99												
FY 00 Option												
FY 01 Option												
REMARKS:												

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No:		P-1 Item Nomenclature:										HELLFIRE SYS SUMMARY (C70000)	
MISSILE PROCUREMENT / 2 / Other Missiles		Other Related Program Elements:											
Program Elements for Code B Items:		Code:											
	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	2192.2	353.8	241.3	308.3	305.5	297.0	234.3	193.5	26.1	22.2	772.2	4946.4	
Less PY Adv Proc					11.6	11.6	11.6	9.5				44.3	
Plus CY Adv Proc				44.3								44.3	
Net Proc (P-1)	2192.2	353.8	241.3	352.6	293.9	285.4	222.7	184.0	26.1	22.2	772.2	4946.4	
Initial Spares	7.5											7.5	
Total Proc Cost	2199.7	353.8	241.3	352.6	293.9	285.4	222.7	184.0	26.1	22.2	772.2	4953.9	
Flyaway U/C	0.046	0.124	0.218	0.154	0.139	0.135	0.106	0.106				0.080	
Wpnt Sys Proc U/C	0.046	0.124	.219	.176	.134	.130	.101	.102				.080	

DESCRIPTION: HELFIRE is an air-to-ground missile system designed to defeat specific targets and minimize exposure of the delivery vehicle to enemy fire. Laser HELFIRE uses semi-active laser terminal guidance; Longbow HELFIRE uses a radio frequency guidance section and is a fire-and forget missile. HELFIRE 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. HELFIRE II includes hardening of the laser seeker against countermeasures, further warhead improvements for the long term, replacement of the mechanical fuze with an electronic fuze, and restoration of the original length and weight. Longbow HELFIRE 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 06. The APKWS will consist of a laser guidance section that uses existing Hydra-70 rocket components and launch equipment. The APKWS is a highly accurate weapon that will complement the HELFIRE 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.

JUSTIFICATION: FY 01 is the third year of the Longbow Hellfire missile's five-year multi-year production contract. The FY 01 procurement dollars will be used to produce the Longbow Hellfire missile and will also support the on-going training, fielding and deployment of the complete AH-64D Longbow Apache system.

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 2000
MISSILE PROCUREMENT / 2 / Other Missiles												P-1 Item Nomenclature:
Program Elements for Code B Items:												LASER HELLFIRE NSL (BAS/CIHWHFI) (C70100)
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	9.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2064.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1939.8	104.5	9.5	9.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2064.1
Initial Spares	5.7											5.7
Total Proc Cost	1945.5	104.5	9.5	9.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2069.8
Flyaway U/C	0.041	0.058										0.042
Wpn Sys Proc U/C	0.041	0.058										.042
Description: Laser HELLFIRE is an air-to-ground, point target, precision strike missile system designed to defeat individual hardpoint targets. The missile system has the capability for modular guidance section replacements. Laser HELLFIRE uses semi-active laser terminal guidance and is the primary anti-tank armament of the AH-64 Apache, OH-58 Kiowa Warrior, and Special 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 fuze with an electronic fuze, 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 strikes at a variety of specific hardpoint targets, while minimizing exposure of the aircraft and supporting troops.												

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2000
Appropriation / Budget Activity/Serial No:		P-1 Line Item Nomenclature:								
MISSILE PROCUREMENT / 2 / Other Missiles		LASER HELFIRE MSL (BASIC/HW/HFI) (C70100)								
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Fiscal Years All-Up-Rounds FY97	HELLFIRE Systems Limited Liability Company (HSLLC)	FFP	AMCOM	Jan-97	Jan-99	1800	46	yes		
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
MISSILE PROCUREMENT / 2 / Other Missiles												LONGBOW HELLFIRE/LBHF+ (C70300)	
Program Elements for Code B Items:												Other Related Program Elements:	
Code:													
	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	249.2	231.9	299.0	304.5	297.0	234.3	193.5	26.1	22.2	26.0	2107.0	
Less PY Adv Proc					11.6	11.6	11.6	9.5				44.3	
Plus CY Adv Proc				44.3								44.3	
Net Proc (P-1)	223.3	249.2	231.9	343.3	292.9	285.4	222.7	184.0	26.1	22.2	26.0	2107.0	
Initial Spares													
Total Proc Cost	223.3	249.2	231.9	343.3	292.9	285.4	222.7	184.0	26.1	22.2	26.0	2107.0	
Flyaway U/C	0.634	0.236	0.209	0.150	0.138	0.135	0.106	0.106				0.163	
Wpn Sys Proc U/C	0.634	0.236	.210	.172	.133	.130	.101	.102				.163	
Description: The Longbow HELLFIRE will be employed on the AH-64D Longbow Apache helicopter. Longbow HELLFIRE will provide the capability to engage targets both during the day and night, in adverse weather and with battlefield obscuration present. Longbow HELLFIRE provides a fire and forget capability against a given target set which complements the semi-active Laser HELLFIRE missile. The Longbow HELLFIRE missile contains a radio frequency guidance section which will provide a lock-on before launch (LOBL) or lock-on after launch (LOAL) capability, depending on target range and movement parameters. All three Longbow program elements (Fire Control Radar, D Model Apache helicopter, and Longbow HELLFIRE missile) were deployed simultaneously and are 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 not change the AH-64 mission or role but will provide for increased aircraft survivability. It is envisioned that Longbow HELLFIRE will also be used on the Comanche as a pre-planned product improvement item. FY 01 is the third year of the five-year multi-year contract.													

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 2000		
Cost Elements		FY 98		FY 99		FY 00		FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Flyaway Costs										
Hardware Costs - Recurring										
All-Up-Rounds										
Containers										
Gov Furn Eq (GFE) Explosives										
Engineering Services										
Engineering Change Orders										
Fielding										
Acceptance Testing										
SUBTOTAL										
Engineering Support										
Project Mgt Admin										
Production Engineering Support										
SUBTOTAL										
NON-Recurring										
Depot Tooling/Test Equipment										
Initial Production Facilitization (IPF)										
Rate Tooling/ Test Equipment										
SUBTOTAL										
TOTAL FLYAWAY										
Peculiar Support Equipment										
Environmental Protection Covers										
SUBTOTAL										
Gross P-1 End Cost										
Less: Prior Year Adv Proc										
Net P-1 Full Funding Cost										
Plus: P-1 CY Adv Proc										
Other Non P-1 Costs										
Initial Spares										
Mods										
TOTAL										

Exhibit P-5a, Budget Procurement History and Planning													
Appropriation / Budget Activity/Serial No. MISSILE PROCUREMENT / 2 / Other Missiles			Weapon System Type:		P-1 Line Item Nomenclature: 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 \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
All-Up-Rounds													
FY 98			Longbow Limited Liability Company (LLLC) Orlando, FI		FFP	AMCOM	Dec-97	Feb-00	1100	176	Yes		**
FY 99			Longbow Limited Liability Company (LLLC) Orlando, FI		*FFP	AMCOM	Apr-99	Sep-00	2000	***142	Yes		**
FY 00			Longbow Limited Liability Company (LLLC) Orlando, FI		FFP	AMCOM	Dec-00	Sep-01	2200	133	Yes		**
FY 01			Longbow Limited Liability Company (LLLC) Orlando, FI		FFP	AMCOM	Dec-01	Sep-02	2200	127	Yes		**
REMARKS:													
* Five-year multiyear contract. ** Performance-based specifications are used in all production contracts. ***Unit price includes EOQ.													

FY 00 / 01 BUDGET PRODUCTION SCHEDULE															P-1 Item Nomenclature: LONGBOW HELIFIRE/LBHF+ (C70300)															Date:	February 2000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
COST ELEMENTS															M	F	R	FY	S	E	R	V	PROC	QTY	Each	ACCEP.	PRIOR	TO	1 OCT	BAL	DUE	AS OF	1 OCT	C	O	N	D	E	C	V	J	A	N	B	R	F	M	A	P	R	Y	M	A	P	R	Y	J	U	N	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	L	J	U	

FY 00 / 01 BUDGET PRODUCTION SCHEDULE										P-1 Item Nomenclature: LONGBOW HELLFIRE/LBHF+ (C70300)										Date: February 2000									
				M F R		FY		S E R V		PROC QTY Each		ACCEP. PRIOR TO 1 OCT		BAL DUE AS OF 1 OCT															
COST ELEMENTS																													
114L/LLLC/FY97				2		97		A		1056		1056																	
114L/LLLC/FY98				2		98		A		1100		1100																	
114L/LLLC/FY99				2		99		A		2000		2000																	
114L/LLLC/FY00				2		00		A		2200		2200																	
114L/LLLC/FY01				2		01		A		2200		183		2017															
114L/LLLC/FY02				2		02		A		2200		0		2200															
114L/LLLC/FY03				2		03		A		1797		0		1797															

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
MISSILE PROCUREMENT / 2 / Other Missiles												HELLFIRE SYS (ADV PROC) (C70000)	
Program Elements for Code B Items:												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	11.6	11.6	11.6	9.5	0.0	0.0	0.0	44.3	
Less PY Adv Proc					11.6	11.6	11.6	9.5				44.3	
Plus CY Adv Proc				44.3								44.3	
Net Proc (P-1)	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 will be employed on the AH-64D Longbow Apache helicopter. Longbow HELLFIRE will provide the capability to engage targets both day and night in adverse weather and with battlefield obscurants present. Longbow HELLFIRE provides a fire and forget capability against a given target set which complements the semi-active Laser HELLFIRE missile. The Longbow HELLFIRE missile contains a radio frequency guidance section which will provide a lock-on before launch (LOBL) or lock-on after launch (LOAL) capability, depending on target range and movement parameters. All three Longbow program elements (Fire Control Radar, D Model Apache helicopter, and Longbow HELLFIRE missile) were deployed simultaneously and are scheduled to be fielded as a total system. The Laser HELLFIRE and Longbow HELLFIRE are complementary; both are required on the modern battlefield. The production buys support on-going training, fielding, and deployment of the AH-64D Longbow helicopter. JUSTIFICATION: The advance procurement requirement is the Economic Order Quantity (EOQ) materials required for the FY99-03 multi-year procurement. Cost for the EOQ in FY 99 was \$44.3M. EOQ materials include bulk materials for housing, selected electronic components, bulk material for antenna, radome, and gimbal transceiver. FY 01 is the third year of the five-year multi-year contract. The Longbow HELLFIRE will provide the capability to conduct battle both during 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 to operate in adverse weather.													

Advance Procurement Requirements Analysis-Funding (P-10A)													First System Award Date:		First System Completion Date:		Date:			
Appropriation / Budget Activity/Serial No:													P-1 Line Item Nomenclature / Weapon System:				HELLFIRE SYS (ADV PROC) (C70000)			
MISSILE PROCUREMENT / 2 / Other Missiles													(\$ in Millions)							
	PLT (mos)	When Rqd (mos)	Pr Yrs	1997	1998	1999	2000	2001	2002	2003	2004	2005	To Comp	Total						
End Item Quantity: All Up Round	13	18					11.6	11.6	11.6	9.5				44.3						
Total Advance Procurement							11.6	11.6	11.6	9.5				44.3						
Description: The advance procurement requirement is the Economic Order Quantity (EOQ) materials required for the FY 99-03 multi-year procurement. Cost for the EOQ in FY 99 was \$44.3M. EOQ materials include bulk materials for housing, selected electronic components, bulk materials for antenna, radome, and gimbal transceiver. The EOQ total of \$44.3M remains unchanged from the February 1999 President's Budget submission. However, the recapment of EOQ in FY 00-03 was adjusted to agree with actual amounts in the multi-year contract signed on April 12, 1999.																				

Advance Procurement Requirements Analysis-Budget Justification (P-10B)									
Appropriation / Budget Activity/Serial No:					Date: February 2000				
MISSILE PROCUREMENT / 2 / Other Missiles					P-1 Line Item Nomencature / Weapon System: HELLFIRE SYS (ADV PROC) (C70000)				
					(\$ in Millions)				
	PLT (mos)	Quantity Per Assembly	Unit Cost	2000			2001		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
End Item All Up Round	13	1	0.1	2200	FY 99*	(11.6)**	2200	FY 99*	(11.6)**
Total Advance Procurement						(11.6)**			(11.6)**

Description:
 *The Economic Order Quantity (EOQ) requirement of \$44.3M is part of the overall multi-year (FY99-03) contract. Funding for the FY99-03 five-year multi-year contract was requested in the FY99 President's budget. The multi-year procurement award date was April 1999. No major end item is procured in advance of the all up round. The FY99 advance procurement was used to purchase bulk metals for housing, selected electronic components, bulk materials for antenna, radome, and gimbal receiver.

**Indicates the funding portion of the prior year (PY) Advance Procurement that is used in the production process for that year. This is not additional procurement.

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 2000
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	2525	3754	4061	1397				19805
Gross Cost	635.4	162.6	146.3	363.4	304.6	388.0	395.7	222.1	10.6	0.0	81.0	2709.8
Less PY Adv Proc	18.3		9.1	25.6		15.7	16.1	8.2				93.0
Plus CY Adv Proc	18.3	34.7			40.0							93.0
Net Proc (P-1)	635.4	197.3	137.2	337.8	344.6	372.2	379.7	213.9	10.6	0.0	81.0	2709.8
Initial Spares				3.7	4.5	6.6	7.6	7.8	8.8	0.0		39.1
Total Proc Cost	635.4	197.3	137.2	341.5	349.1	378.9	387.3	221.7	19.5	0.0	81.0	2748.8
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 or 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, a 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 a CLU mating connector, front and rear shock attenuators, a removable front end cap, 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, to move to another fighting position, or to reload. The Javelin provides enhanced lethality over the DRAGON through the use of a tandem warhead which will defeat all known armor threats. It is effective against both stationary and moving targets. The Javelin is capable of operating 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 attacking/ hovering helicopters. The CLU can be used in a stand-alone mode for battlefield surveillance and target selection. There have been 10,593 rounds procured through FY2000. There are 9,212 rounds planned for purchase in three subsequent years as part of a four-year multiyear contract (FY2000-2003) using economic order quantity funded in FY2000. FY2001 funds will be used to procure 3754 missiles and 808 CLUs.

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 2000		
ID	CD	Missiles Cost Elements	FY 98			FY 99			FY 00			FY 01		
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
		Missile Hardware- Recurring												
		All Up Round	281130	3569	79	162453	2525	64	241525	3754	64	241525	3754	64
		Engineering Services	5098			5550			4828			4828		
		Engineering Change Orders	2568			184			208			208		
		Acceptance Testing	3096			2810			2661			2661		
		Fielding	2072			4478			2290			2290		
		SubTotal Missile Hardware	293964			175475			251512			251512		
		Procurement Support												
		Government Project Management	6153			6764			6924			6924		
		Government Production Engineering	3168			3958			3605			3605		
		Publications/Technical Data	403			494			448			448		
		SUBTOTAL	9724			11216			10977			10977		
		Plant Closure												
		Total Flyaway	303688			186691			262489			262489		
		Command & Launch Hardware												
		Command Launch Unit	37794	298	127	60604	610	99	80275	808	99	80275	808	99
		Engineering Services	548			1509			1610			1610		
		Engineering Change Orders	726			68			70			70		
		Fielding	1482			8620			7447			7447		
		SubTotal C&L Hardware	40550			70801			89402			89402		
		Training Devices												
		Field Tactical Trainer - Student Station	15178	144	105	36320	475	76	26838	351	76	26838	351	76
		Field Tactical Trainer - Instructor Station	808	33	24	1424	80	18	1798	101	18	1798	101	18
		Basic Skills Trainer	2479	19	130	7708	82	94	5546	59	94	5546	59	94
		Missile Simulation Round	660	330	2	1672	704	2	1886	794	2	1886	794	2
		SubTotal	19125			47124			36068			36068		
		Gross P-1 End Cost	363363			304616			387959			387959		
		Less: Prior Year Adv Proc	25613						15711			15711		
		Net P-1 Full Funding Cost	337750			304616			372248			372248		
		PLUS P-1 CY Adv. Proc.				40000								
		Other Non P-1 Costs												
		Initial Spares	3712			4479			6614			6614		
		MODS												
		TOTAL	341462			349095			378862			378862		

Exhibit P-5a, Budget Procurement History and Planning										Date:	February 2000	
Appropriation / Budget Activity/Serial No:					P-1 Line Item Nomenclature:					JAVELIN (AAWS-M) (CC0007)		
MISSILE PROCUREMENT / 2 / Other Missiles					Weapon System Type:							
WBS Cost Elements:		Contractor and Location		Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
Fiscal Years												
All Up Round												
FY 99		Joint Venture RSC/LMC*		SS/FP**	AMCOM	Dec-98	Jan-01	3569	79	Yes		Oct 98
FY 00		Joint Venture RSC/LMC*		SS/FP**	AMCOM	Mar-00	Jan-02	2525	64	Yes		Oct 98
FY 01		Joint Venture RSC/LMC*		SS/FP**	AMCOM	Dec-00	Nov-02	3754	64	Yes		
Command Launch Unit												
FY 99		Joint Venture RSC/LMC*		SS/FP**	AMCOM	Dec-98	Jan-01	298	127	Yes		Oct 98
FY 00		Joint Venture RSC/LMC*		SS/FP**	AMCOM	Mar-00	Oct-01	610	99	Yes		Oct 98
FY 01		Joint Venture RSC/LMC*		SS/FP**	AMCOM	Dec-00	Oct-02	808	99	Yes		
REMARKS: * Raytheon Systems/Lockheed Martin Corp/Tucson,AZ/Olando, FL ** Multiyear contract												

FY 00 / 01 BUDGET PRODUCTION SCHEDULE										JAVELIN (AAWS-M) (CC0007)										February 2000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
MISSILE PROCUREMENT / 2 / Other Missiles												JAVELIN (AAWS-M) (ADV PROC) (CC0007)	
Program Elements for Code B Items:												Other Related Program Elements:	
Code:													
	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	15.7	16.1	8.2	0.0	0.0	0.0	40.0	
Less PY Adv Proc						15.7	16.1	8.2				40.0	
Plus CY Adv Proc					40.0							40.0	
Net Proc (P-1)	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	
Initial Spares													
Total Proc Cost	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	
Flyaway U/C													
Wpn Sys Proc U/C													
DESCRIPTION: 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. JUSTIFICATION: The Fiscal Year 2000 advance procurement funds will provide economic order quantities for years two through four (FY 2001 through FY 2003) of the second multi-year contract. Advance Procurement will buy parts and materials in support of the All Up Round, the Command Launch Unit (CLU), the Basic Skills Trainer, the Field Tactical Trainer (FTT)-Instructor Station, and the FTT-Student Station.													

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
MISSILE PROCUREMENT / 2 / Other Missiles												MLRS ROCKET (C65400)	
Program Elements for Code B Items:												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			9.4	684	1332	1614	1518	78774	566490	
Gross Cost	3634.2	45.3	19.2	0.0	3.7	9.4	40.4	71.4	80.9	80.8	3095.0	7080.5	
Less PY Adv Proc	449.8											449.8	
Plus CY Adv Proc	449.8											449.8	
Net Proc (P-1)	3634.2	45.3	19.2	0.0	3.7	9.4	40.4	71.4	80.9	80.8	3095.0	7080.5	
Initial Spares													
Total Proc Cost	3634.2	45.3	19.2	0.0	3.7	9.4	40.4	71.4	80.9	80.8	3095.0	7080.5	
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. The major assemblies of the rocket are a fused 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, enhanced accuracy and increased survivability of the system. JUSTIFICATION: 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. The ER-MLRS accomplishes this mission. The GMLRS will provide greater range and significantly enhanced accuracy. The GMLRS will have a significantly decreased logistics burden because fewer rockets will be required to defeat a target. FY01 funding provides program support, production engineering support associated with deliveries of rockets in prior years, stockpile reliability and industrial maintenance to support rocket warm-line production.													

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 (G65402)		Weapon System Type:		Date: February 2000	
ID	CD	FY 98		FY 99		FY 00		FY 01	
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty
Cost Elements		\$000	Each	\$	\$000	Each	\$	\$000	Each
FLY-AWAY COSTS									
HARDWARE									
Tactical/Practice Round (Less GFE)									
Submunition								266	
Engineering Services								5805	
Industrial Maintenance Contracts								1547	
Production Engineering								482	
OGA									
Engineering Change Orders								21	
Fielding									
Facilitization									
SUBTOTAL								8121	
PROCUREMENT SUPPORT									
Project Management Admin								1048	
Test & Evaluation								244	
Service Support Contract									
SUBTOTAL								1292	
Gross P-1 End Cost									
Less: Prior Year Adv Proc									
Net P-1 Full Funding Cost								9413	
Plus: P-1 CY Adv Proc									
Other Non P-1 Costs								9413	
Initial Spares									
Mods									
TOTAL								9413	

Exhibit P-5a, Budget Procurement History and Planning										Date:	February 2000
Appropriation / Budget Activity/Serial No:		P-1 Line Item Nomenclature:									
MISSILE PROCUREMENT / 2 / Other Missiles		MLRS EXTENDED RANGE ROCKET (C65402)									
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY	Unit Cost	Specs Avail Now?	Date Revisn Avail	RFP Issue Date	
Fiscal Years						Each	\$				
Tactical/Practice Round (Less GFE) FY 98	Lockheed Martin M&F C. Sys Dallas, TX	SS/FFP	PEO-Tactical Missiles/AMCOM	Jun-98	May-00	VAR	VAR	Yes			
REMARKS:											

FY 00 / 01 BUDGET PRODUCTION SCHEDULE															P-1 Item Nomenclature: MLRS EXTENDED RANGE ROCKET (C65402)															Date: February 2000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Exhibit P-40, Budget Item Justification Sheet											
Appropriation / Budget Activity/Serial No:				Date:				February 2000			
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	39	66	76	95	114	81	341	1611
Gross Cost	1983.0	105.1	123.7	121.1	137.5	175.6	181.4	182.8	160.1	666.2	4025.4
Less PY Adv Proc	56.9						24.6	22.6			104.1
Plus CY Adv Proc	56.9					28.1	19.1				104.1
Net Proc (P-1)	1983.0	105.1	123.7	121.1	137.5	203.7	175.9	160.3	160.1	666.2	4025.4
Initial Spares	158.4		0.3	4.8	6.2	12.2	13.1	13.5	9.3	72.1	296.3
Total Proc Cost	2141.4	105.1	124.0	125.9	143.7	215.9	188.9	173.8	169.4	738.3	4321.7
Flyaway U/C		2.3	3.6	3.1	2.2	1.8	1.8	1.5	1.5	1.0	
Wpn Sys Proc U/C		2.6	5.9	5.0	3.5	2.7	1.9	1.4	2.0	2.0	

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 provided for remanufactured launchers. Quantities for FY98 and beyond are for M270A1 upgrades. The M270A1 upgrades are needed to fire the Block IA Army Tactical Missile System (TACMS) missile. FY 98-03 funding also provides for rebuilding launchers for deployment to MLRS Heavy Divisions.

JUSTIFICATION: FY 01 funds provide for 66 remanufactured launchers. The objectives of the MLRS 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 2000		
Cost Elements			FY 98			FY 99			FY 00			FY 01		
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$
GROUND EQUIPMENT HARDWARE														
Launcher			56871	24	2369625	68180	39	1748205	96202	66	1457606			
Remanufacture			2214			16816			23757					
Launcher Pod/Container (LP/C) Trainer			464	48	9667	847	78	10859	1456	132	11030			
2x9/3x6 Launcher			15888			1800			442					
Peculiar Support Equipment			9654			9229			22458					
Restructure						6000			10400					
Engineering Services			17937			14456			13702					
Production Engineering			8880			9760			8408					
OGA			2940			3870			4050					
Engineering Change Orders														
Fielding			400			100			1260					
Facilitization														
SUBTOTAL			115248			131058			182135					
PROCUREMENT SUPPORT														
Project Management Admin			5580			5832			5927					
Service Support Contract			306			617			627					
SUBTOTAL			5886			6449			6554					
Gross P-1 End Cost			121134			137507			188689					
Less: Prior Year Adv Proc														
Net P-1 Full Funding Cost			121134			137507			188689					
Plus: P-1 CY Adv Proc														
Other Non P-1 Costs			27			477			838					
Initial Spares			4792			6196			6456					
Mods			2767			6596			16499					
TOTAL			128720			150776			212482					

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2000											
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles				P-1 Line Item Nomenclature: MLRS LAUNCHER (C85900)																	
Weapon System Type:				Contract Method and Type		Location of PCO		Award Date		Date of First Delivery		QTY Each		Unit Cost \$		Specs Avail Now?		Date Revisn Avail		RFP Issue Date	
WBS Cost Elements: Fiscal Years				Contractor and Location																	
Launcher M270A1				Lockheed Martin M. & F. C. Sys, Dallas, TX		SS/FFP		PEO-Tactical Missiles/AMCOM		Jul-98		Jun-00		21		2911524		Yes			
FY 98				Lockheed Martin M. & F. C. Sys, Dallas, TX		SS/FFP		PEO-Tactical Missiles/AMCOM		Nov-98		Dec-00		24		2369625		Yes			
FY 99				Lockheed Martin M. & F. C. Sys, Dallas, TX		SS/FFP		PEO-Tactical Missiles/AMCOM		Mar-00		Dec-01		39		1748205		Yes			
FY 00				Lockheed Martin M. & F. C. Sys, Dallas, TX		SS/FFP		PEO-Tactical Missiles/AMCOM		Mar-01		Dec-02		66		1457606		Yes			
FY 01																					
REMARKS:																					

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 2000
MISSILE PROCUREMENT / 2 / Other Missiles												P-1 Item Nomenclature:
Program Elements for Code B Items:												ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)
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							2199
Gross Cost	1143.5	127.2	89.8	90.6	90.8	15.0	9.0	0.0	0.0	0.0	0.0	1565.9
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	90.6	90.8	15.0	9.0	0.0	0.0	0.0	0.0	1565.9
Initial Spares	2.3	1.0	0.9									4.2
Total Proc Cost	1145.8	128.1	90.8	90.6	90.8	15.0	9.0	0.0	0.0	0.0	0.0	1570.1
Flyaway U/C	0.6	0.8	0.8	0.9	0.9							
Wpn Sys Proc U/C	0.9	0.8	.8	.9	.8							
DESCRIPTION: The Army Tactical Missile System (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 Launcher Assembly, the Test Set, the Training Set, the Trainer, the Test Device, the Modified M270 Launcher and the Army TACMS Missile Facilities (ATMF). JUSTIFICATION: FY 01 will fund the final production for the Block 1 A missile. 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 2000	
Cost Elements		FY 98		FY 99		FY 00		FY 01					
		TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
Missile Hardware- Recurring													
Prime Contract													
GFE					64992	96	677		69774	110	634		
Flight Kits					55				100				
Engineering Services					1020								
Engineering Change Orders (ECOs)					8638				8275			1100	
Fielding					919				500				
					100				128			100	
Subtotal Missile Hardware					75724				78777			1200	
Procurement Support													
Project Management					3521				2758			2325	
Production Engineering Support					7150				6101			8419	
Test and Evaluation					3376				2292			2150	
Subtotal Procurement Support					14047				11151			12894	
TOTAL MISSILE FLYAWAY					89771				89928			14094	
Command & Launch Integration													
Command & Launch Integration Spt					815				849			950	
Subtotal C&L Integration					815				849			950	
Support Cost													
Missile Test Device													
ATMF Test and Support Equipment													
Subtotal Support Cost													
Gross P-1 End Cost					90586				90777			15044	
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost					90586				90777			15044	
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares													
Mods													
TOTAL					90586				90777			15044	

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2000
Appropriation / Budget Activity/Serial No:		P-1 Line Item Nomenclature:								
MISSILE PROCUREMENT / 2 / Other Missiles		ARMY TACTICAL MSI: 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 \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
Army TACMS Block 1A Missile										
FY 99	Lockheed Martin Missiles and Fire Control - Dallas	SS/FP	AMCOM	Dec-98	Feb-00	96	677	Yes		Sep 96
FY 00	Lockheed Martin Missiles and Fire Control - Dallas	SS/FP	AMCOM	Nov-99	Mar-01	110	634	Yes		Sep 96
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 2000
MISSILE PROCUREMENT / 2 / Other Missiles												P-1 Item Nomenclature:
Program Elements for Code B Items:												ATACMS BLK II SYS SUMMARY (C46101)
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			24	48	55	67	104	94	91	723	1206	
Gross Cost	0.0	0.0	149.7	228.1	230.3	261.2	375.7	315.9	309.3	2300.3	4170.5	
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	149.7	228.1	230.3	261.2	375.7	315.9	309.3	2300.3	4170.5	
Initial Spares					1.4	1.4					2.8	
Total Proc Cost	0.0	0.0	149.7	228.1	231.7	262.5	375.7	315.9	309.3	2300.3	4173.2	
Flyaway U/C*			6.1	4.7	4.1	3.9	3.6	3.4	3.4	3.2	3.4	
Wpn Sys Proc U/C*			6.2	4.8	4.2	3.9	3.6	3.4	3.4	3.2	3.5	
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 is a ground-launched, solid propellant, inertially guided (Global Positioning System aided) missile system with 13 BATs or P3I BATs as its payload. It is launched from the Multiple Launch Rocket System (MLRS) M270A1 launcher and will be deployed within the ammunition loads of corps MLRS battalions and/or division artillery MLRS batteries. The BAT submunition employs acoustic and infrared (IR) sensors to detect, acquire and engage moving armored vehicles. The P3I BAT will add a millimeter wave radar and IR enhancements to increase Block II system capabilities in the presence of countermeasures and expand the target set to include stationary (warm and cold) armored vehicles. JUSTIFICATION: The primary mission of the ATACMS BLK II is to delay, disrupt, neutralize, or destroy armored combat vehicles/organization. ATACMS BLK II carries BAT and P3I BAT submunitions deep into enemy territory where these submunitions can automatically track and destroy targets. FY99 procured 24 ATACMS Block II missiles to support low rate initial production (LRIP). FY 00 procured 48 ATACMS BLK II missiles to support LRIP II. The FY01 funding will procure 55 ATACMS BLK II missiles for a Full Rate Production Award.												
**Note: Unit cost reflects total BLK II with BAT system dollars.												

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles				P-1 Line Item Nomenclature: ATACMS BLK II SYS SUMMARY CA6101				Weapon System Type:		Date: February 2000	
Cost Elements		FY 98		FY 99		FY 00		FY 01					
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	Each	\$000	Each	\$000	Each	\$000	Each	\$000	Each
Missile Hardware- Recurring													
Prime Contract (BLK II Missile)		46536	24	1939		76752	48	1599		77165	55	1403	
Prime Contract (BAT Submunition)		87552	304	288		127890	609	210		115596	741	156	
Flight Kits						1200				1590			
Engineering Services		2300				4900				9813			
Engineering Change Orders (ECOs)													
Fielding		360				103				100			
Subtotal Missile Hardware		136748				210845				204264			
Procurement Support													
Project Management		4218				4033				5998			
Production Engineering Support		3741				6581				9990			
Test and Evaluation		1320				5199				6553			
Subtotal Procurement Support		9279				15813				22541			
TOTAL MISSILE FLYAWAY		146027				226658				226805			
Command & Launch Integration													
Command & Launch Integration Spt						910				929			
Subtotal C&L Integration						910				929			
Support Cost													
Missile Test Device and Trainer		1080											
Army Tac Msl Fac Test & Spt Equipment		2568				483				2600			
Subtotal Support Cost		3648				483				2600			
Gross P-1 End Cost		149675				228051				230334			
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		149675				228051				230334			
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares										1372			
Modis													
TOTAL		149675				228051				231706			

Exhibit P-5a, Budget Procurement History and Planning													
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles			Weapon System Type:		P-1 Line Item Nomenclature: ATACMS BLK II SYS SUMMARY 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 \$000	Specs Avail Now?	Date Revis Avail	RFP Issue Date
ATACMS BLK II/BAT			Lockheed Martin Missiles and Fire Control - Dallas		SS/FPI	AMCOM	Jun-99	Mar-01	24	6236	Yes		Jun 98
FY 99													
FY 00													
FY 01													
FY 02													
FY 03													
FY 04			Lockheed Martin Missiles and Fire Control - Dallas		SS/FFP	AMCOM	Dec-02	Oct-04	104	3612			
FY 05													
REMARKS:			The unit cost reflects total weapon system procurement dollars for both the BLK II and the BAT.										

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
MISSILE PROCUREMENT / 2 / Other Missiles												MULTI PURPOSE INDV MUN (C09100)	
Program Elements for Code B Items:												Other Related Program Elements:	
Code:													
	Prior Years	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	To Complete	Total Prog	
Proc Qty							222	576	956	1767		3521	
Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	23.8	23.0	47.3	47.2		141.4	
Less PY Adv Proc							3.5					3.5	
Plus CY Adv Proc						3.5						3.5	
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	3.5	20.3	23.0	47.3	47.2		141.4	
Initial Spares													
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	3.5	20.3	23.0	47.3	47.2		141.4	
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 tooling for rate production of the grenade safe and arm, tooling and test equipment for the auto pilot and flight motor, and long lead material primarily for the rocket motor.													

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 2000			
Cost Elements		ID	FY98			FY99			FY00			FY01	
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	Each	\$000
HARDWARE (ADV PROCUREMENT)													
ROCKET MOTORS											900	222	
TOOLING AND TEST EQUIPMENT											2147	1	
MISC. MATERIAL											500	1	
TOTAL													3547

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No.		P-1 Item Nomenclature:										MULTI PURPOSE INDV MUN (ADV PROC) (C09100)	
MISSILE PROCUREMENT / 2 / Other Missiles		Other Related Program Elements:											
Program Elements for Code B Items:		Code:											
	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							3.5						
Less FY Adv Proc												3.5	
Plus CY Adv Proc						3.5						3.5	
Net Proc (P-1)													
Initial Spares													
Total Proc Cost													
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 versatile 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 Low Rate Initial Production (LRIP) start in 2QFY02. LRIP will culminate with an FUE in late 4QFY02.													

Advance Procurement Requirements Analysis-Funding (P-10A)												Date: February 2000		
Appropriation / Budget Activity/Serial No:		First System Award Date:		First System Completion Date:										
		P-1 Line Item Nomenclature / Weapon System:												
		(\$ in Millions)												
	PLT (mos)	When Rqd (mos)	Pr Yrs	FY 95	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	To Comp	Total
End Item Quantity: 222														
Rocket Motors	12									0.9				.9
Tooling and Test Equipment	12									2.1				2.1
Misc Long Lead Material	12									0.5				.5
Total Advance Procurement										3.5				3.5
Description: Advance Procurement dollars are required to purchase long lead items to support an Low Rate Initial Production (LRIP) start in FY 02.														

Advance Procurement Requirements Analysis-Budget Justification (P-10B)									
Appropriation / Budget Activity/Serial No:				Date: February 2000					
MISSILE PROCUREMENT / 2 / Other Missiles				P-1 Line Item Nomenclature / Weapon System: MULTI PURPOSE INDV MUN (ADV PRO) (C09100)					
				2000			2001		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
End Item	PLT (mos)	Quantity Per Assembly	Unit Cost						
Rocket Motors	12	1					222	Nov 01	0.9
Tooling and Test Equipment	12	1					1	Nov 01	2.1
Misc Long Lead Material	12	1					1	Nov 01	0.5
Total Advance Procurement									3.5
Description: Single year procurement for Long Lead Item (LLI) will be used in FY 01 with follow on Low Rate Initial Production (LRIP) contract in FY 02.									

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
MISSILE PROCUREMENT / 3 / Modification of Missiles												P-1 Item Nomenclature:	
Program Elements for Code B Items:												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	14.2	49.6	22.9	25.9	22.6	41.2	41.2	206.5	855.2	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	400.0	23.3	7.7	14.2	49.6	22.9	25.9	22.6	41.2	41.2	206.5	855.2	
Initial Spares	44.5	5.2	2.7	4.9	3.6	2.6	0.7	1.5	3.9	3.9	25.3	98.9	
Total Proc Cost	444.5	28.5	10.4	19.1	53.3	25.6	26.7	24.1	45.1	45.1	231.8	954.1	
Fltway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: The PATRIOT Weapon System Growth Program is in response to a Report of the Defense Science Board Task Force on PATRIOT Vulnerability (1978) (SECRET) and the Air Threat to Central Europe (1978-1988) ATCE-1988 (SECRET) dated 1 Aug 78, and was part of the Mid 1980 Army System Acquisition Review Council/Defense System Acquisition Review Council (ASARC/DSARC) process approving the initiation of PATRIOT production.

JUSTIFICATION: The FY01 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											
Appropriation / Budget Activity/Serial No.				Date				February 2000			
MISSILE PROCUREMENT / 3 / Modification of Missiles				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 98 & Prior	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	14.6	12.6	14.7	0.0	0.0	0.0	0.0	53.4
Block VII (No P3a Set)											
1-88-03-1224		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Block VIII (RAM Mods)											
1-89-03-1230		4.4	5.5	6.4	5.6	6.2	3.0	3.6	0.0	0.0	34.7
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	6.0	8.0	21.8	15.5	0.0	56.5
RAM MODS (No P3a Set)											
1-98-03-1249		0.0	0.0	0.0	0.0	0.0	11.6	15.8	25.7	0.0	53.1
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 (No P3a Set)											
1-97-03-1245		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Service Life Extension Program											
1-00-03-1252		0.0	0.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	18.8
Totals											
		13.3	14.2	49.6	22.9	26.9	22.6	41.2	41.2	0.0	231.9

INDIVIDUAL MODIFICATION												Date	February 2000																																																																																																								
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:																																																																																																																					
<u>Planned</u> Preliminary Design Review Critical Design Review (CDR) Configuration Development Test & Evaluation (CDTE) Force Development Test Experimentation (FDTE) Limited User Testing (LUT) <u>Accomplished</u> 2QFY96 4QFY96 4QFY99 1QFY00 2QFY00 3QFY96 4QFY96																																																																																																																					
Installation Schedule:																																																																																																																					
<table border="1"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td>5</td><td></td><td></td><td></td> <td></td><td></td><td>8</td><td>3</td> <td></td><td></td><td></td><td>4</td> <td>4</td><td>6</td><td></td><td>4</td> <td></td><td></td><td></td><td>4</td> </tr> <tr> <td>Outputs</td> <td>5</td><td></td><td></td><td></td> <td></td><td></td><td></td><td>4</td> <td>4</td><td>3</td><td></td><td>4</td> <td>4</td><td>4</td><td>3</td><td>3</td> <td>3</td><td>4</td><td></td><td>4</td> </tr> </tbody> </table>														Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	5						8	3				4	4	6		4				4	Outputs	5							4	4	3		4	4	4	3	3	3	4		4
Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003																																																																																																				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																	
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																	
Inputs	5						8	3				4	4	6		4				4																																																																																																	
Outputs	5							4	4	3		4	4	4	3	3	3	4		4																																																																																																	
<table border="1"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">FY 2006</th> <th colspan="4">FY 2007</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td>3</td><td>4</td><td>4</td><td>4</td> <td>3</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td>54</td> </tr> </tbody> </table>														Pr Yr	FY 2004				FY 2005				FY 2006				FY 2007				To Complete	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			Outputs	3	4	4	4	3													54																															
Pr Yr	FY 2004				FY 2005				FY 2006				FY 2007				To Complete	Totals																																																																																																			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																					
Inputs	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																					
Outputs	3	4	4	4	3													54																																																																																																			
METHOD OF IMPLEMENTATION: Contract Dates: FY 1999 Dec 98 FY 2000 Dec 99 FY 2001 Dec 00 FY 2002 Jun 01 FY 2003 Jun 02 Delivery Date: FY 1999 Jun 00 FY 2000 Jun 01 FY 2001 Jun 02 FY 2002 Jun 02 FY 2003 Jun 02 ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 18 Months																																																																																																																					

INDIVIDUAL MODIFICATION																			
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	\$
16	2.6	14	8.0	10	13.4	7	11.1	7	13.4									54	48.5
RDT&E																			
PROCUREMENT																			
Kit Quantity																			
Installation Kits																			
Installation Kits, Nonrecurring Equipment																			
Equipment, Nonrecurring Engineering Change Orders																			
Data																			
Training Equipment																			
Support Equipment																			
Other																			
Interim Contractor Support																			
Installation of Hardware																			
16	0.2	14	0.7	10	1.2	7	1.5	7	1.3									16	0.2
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																			
16	0.2	14	0.7	10	1.2	7	1.5	7	1.3									54	4.9
Total Installation																			
Total Procurement Cost																			

INDIVIDUAL MODIFICATION															Date	February 2000	
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 Engineering Change Proposals (ECPs). Corrections included in this Materiel Change involve improvements to the Radar, Engagement Control Station (ECS), Information and Coordination Central (ICC), Launching Station (LS), Battalion Maintenance Equipment/Group (BME/BMG), Communications Relay Group (CRG) and ISE/PFASC Shop Sets. The purpose of this modification is the acquisition and installation of retrofit modification kits to bring fielded PATRIOT hardware up to the production baseline configuration.																	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																	
Major milestones not applicable.																	
Installation Schedule:																	
Pr Yr		FY 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
Inputs		64	32	31	53	53	52	93	92	92	92	103	103	103	89	89	50
Outputs		32	32	32	31	53	53	52	93	92	92	103	103	103	89	89	50
Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs		50	50	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Outputs		50	50	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs		50	50	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Outputs		50	50	75	75	75	75	75	75	75	75	75	75	75	75	75	75
METHOD OF IMPLEMENTATION:																	
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																	
ADMINISTRATIVE LEADTIME: 6 Months																	
PRODUCTION LEADTIME: 6 Months																	

INDIVIDUAL MODIFICATION																				
Block VIII (RAM Mods) 1-89-03-1230																				
MODIFICATION TITLE (Cont):																				
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	4.9	369	5.8	411	5.1	357	5.4	200	2.6	300	3.0					1975	30.8
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	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	0.5											411	0.5
FY 2002 Eqpt -- kits									357	0.8									357	0.8
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	0.5	357	0.8	200	0.4	300	0.6					1975	3.9
Total Procurement Cost	4.4		5.5		6.4		5.6		6.2		3.0		3.6						34.7	

INDIVIDUAL MODIFICATION																			
Date													February 2000						
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:																			
		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003									
Pr Yr		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Totals		7				7				5									
Inputs		7																	
Outputs																			
		FY 2004		FY 2005		FY 2006		FY 2007				Totals							
		1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																			
Outputs														19					
METHOD OF IMPLEMENTATION:																			
Contract Dates:					FY 1999					FY 2000					FY 2001				
Delivery Date:					FY 1999					FY 2000					FY 2001				
					ADMINISTRATIVE LEADTIME: 3 Months					PRODUCTION LEADTIME: 9 Months									
					Feb 00					Feb 01					Nov 01				

INDIVIDUAL MODIFICATION																			
Integrated Diagnostic Support System 1-97-03-1244																			
MODIFICATION TITLE (Cont):																			
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	5	0.1										7	0.4
FY 2001 Eqpt -- Kits																		5	0.1
FY 2002 Eqpt -- kits																			
FY 2003 Eqpt -- kits																			
FY 2004 Eqpt -- kits																			
FY 2005 Eqpt -- kits																			
TC Equip-Kits																			
Total Installation	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 2000
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:																
Inputs Outputs		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003						
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
Totals																
Inputs																
Outputs																
Totals																
Inputs Outputs		FY 2004		FY 2005		FY 2006		FY 2007		To						
		1	2	3	4	1	2	3	4	1	2	3	4	Complete		
Inputs																
Outputs																
Totals																
METHOD OF IMPLEMENTATION:																
FY 1999				FY 2000				FY 2001				FY 2002				FY 2003
Contract Dates:				Apr 00				Apr 01				Apr 01				Apr 01
Delivery Date:				Oct 00				Oct 01				Oct 01				Oct 01
				ADMINISTRATIVE LEADTIME: 6 Months				PRODUCTION LEADTIME: 6 Months								

INDIVIDUAL MODIFICATION														Date		February 2000			
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																			
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																			

INDIVIDUAL MODIFICATION															Date	February 2000	
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:																	
		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003							
Pr Yr		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																	
Inputs																	
Outputs																	
		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011	
1		2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1
Totals																	
Inputs																	
Outputs																	
METHOD OF IMPLEMENTATION:																	
		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006	
Contract Dates:																	
Delivery Date:																	

INDIVIDUAL MODIFICATION												
Tactical Command System 1-98-03-1251												February 2000
MODIFICATION TITLE (Cont):												
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	Qty	\$
RDT&E												
PROCUREMENT												
Kit Quantity			16								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								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								16	0.1
Total Procurement Cost			2.5								2.5	

INDIVIDUAL MODIFICATION												Date	February 2000
MODIFICATION TITLE: Service Life Extension Program 1-00-03-1252													
MODELS OF SYSTEMS AFFECTED: Missile													
DESCRIPTION / JUSTIFICATION:													
Congressional supplemental funding for Service Life Extension Program. Authority to obligate pending assessment of various PATRIOT Missile Modification Programs, including but not limited to, the PATRIOT Anti-Cruise Missile and the GEM upgrade program													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:													
TBA.													
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
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
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Totals		1	2	3	4	1	2	3	4	1	2	3	4
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Totals		1	2	3	4	1	2	3	4	1	2	3	4
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Totals		1	2	3	4	1	2	3	4	1	2	3	4
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Inputs													
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Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs						</							

INDIVIDUAL MODIFICATION																			February 2000	
Service Life Extension Program 1-00-03-1252																				
MODIFICATION TITLE (Cont):																				
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	\$
RD&E																				
PROCUREMENT																				
Kit Quantity					0	18.3														18.3
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					0	0.5														0.5
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						0.5														0.5
Total Procurement Cost						18.8														18.8

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
MISSILE PROCUREMENT / 3 / Modification of Missiles												STINGER MODS (C20000)	
Program Elements for Code B Items:												Other Related Program Elements:	
Code:												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	31.2	8.0	21.0	13.4	21.9	27.5	27.1	32.2	35.6	0.0	239.6		
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	31.2	8.0	21.0	13.4	21.9	27.5	27.1	32.2	35.6		239.6		
Initial Spares													
Total Proc Cost	31.2	8.0	21.0	13.4	21.9	27.5	27.1	32.2	35.6	0.0	239.6		
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: Stinger Block I Missile Upgrades: Hardware and software modifications to the Stinger-RMP Missile System improve performance against targets which are slow-moving, employ advanced counter-measures, or operate at night. The Stinger Block I Upgrade modifications maintain compatibility with all current and planned command and launch platforms, including Air-To-Air Stinger, Avenger, and the gripstock used in shoulder-fired applications.

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 Man Portable Air Defense System (MANPADS) gripstocks, new Electronically Erasable Read Only Memory Modules must be procured and installed in existing, fielded gripstocks. For Air-to-Air Stinger, Bradley Linebacker, and Avenger, new circuit card assemblies must be procured and installed in each system's Interface Electronics Assembly.

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

JUSTIFICATION: FY 01 funds continue Stinger Block I upgrades for both the missile and platform. **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. The Block I Upgrade corrects 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's improved performance.

Exhibit P-40M Budget Item Justification Sheet										
Appropriation / Budget Activity/Serial No.				Date				February 2000		
MISSILE PROCUREMENT / 3 / Modification of Missiles				P-1 Item Nomenclature				STINGER BLK I UPGRADES (C21300)		
Program Elements for Code B Items			Code	Other Related Program Elements						
			Manpads, Avenger, Bradley Linebacker, Kowa Warrior							
Description			Fiscal Years							
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Total
Stinger Block I Missile Upgrades (C21300)										
01-87-03-1510	Operational	69.6	13.3	20.1	19.8	23.4	24.8	29.5	27.6	228.1
Stinger Block I Platform Upgrades (C21300)										
01-87-03-1510	Operational	3.9	0.1	1.8	2.0	4.1	1.2	0.2	0.0	13.2
Stinger Troop Proficiency Trainer (No P-3a set)										
01-87-03-1510	TBD	0.0	0.0	0.0	0.0	0.0	1.1	2.0	0.0	3.1
Linebacker TTT & PGS (No P-3a set)										
01-87-03-1510	TBD	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.0	8.5
Totals		73.5	13.4	21.9	21.8	27.5	27.1	32.2	35.6	252.9

INDIVIDUAL MODIFICATION															Date	February 2000
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 into the Stinger-RMP missile system to increase overall missile performance in certain engagement scenarios and to resolve a key aviation deficiency which requires aviation platforms to super-elevate. The engagement scenarios in which missile performance improves include head/tail-on and slow-moving targets, counter-measures, and night-time engagements. These changes include hardware changes to the missile and software changes to the command and launch platforms, to include Air-to-Air Stinger, Avenger, and griptocks 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 has been completed																
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
Inputs	2240	390	390	390	478	523	525	171	173	174	174	237	238	240	201	204
Outputs	1530	320	390	390	390	390	478	523	525	171	173	174	237	238	240	204
Totals																
Inputs	222	224	227	228	228	228	245	246	246	195	196	198	198	198	198	11,353
Outputs	204	222	222	224	227	228	228	228	245	246	246	195	196	198	198	11,353
METHOD OF IMPLEMENTATION:																
ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 18 Months																
Contract Dates: FY 1999 2 Qtr, FY99 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 2000			
Stinger Block I Missile Upgrades 01-87-03-1510																			
MODIFICATION TITLE (Cont):																			
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	\$	
RDT&E	34.5																	34.5	
PROCUREMENT																			
Kit Quantity	5326	69.6	692	13.3	952	20.1	812	19.8	890	23.4	911	24.8	983	29.5	787	27.6		11,353	228.1
Installation Kits																			
Installation Kits, Nonrecurring Equipment																			
Equipment, Nonrecurring																			
Engineering Change Orders																			
Data																			
Training Equipment																			
Support Equipment																			
Other																			
Interim Contractor Support																			
Installation of Hardware																			
FY 98 & Prior Eqpt -5326	2240		1560		1526													5,326	
FY 1999 Eqpt --692 Kits					171		521											692	
FY 2000 Eqpt -- 952 Kits							237		715									952	
FY 2001 Eqpt -- 812 Kits									201		611							812	
FY 2002 Eqpt -- 890 kits											222		668					890	
FY 2003 Eqpt -- 911 kits													227		684			911	
FY 2004 Eqpt -- 983 kits															245	738		983	
FY 2005 Eqpt -- 787 kits																787		787	
TC Equip - 0 Kits																			
Total Installment	2240	69.6	1560	13.3	1697		758	19.8	916	23.4	833	24.8	895	29.5	929	27.6	1,525	11,353	228.1
Total Procurement Cost																			

"Installation of Hardware" costs are included in "Installation Kits" above.

INDIVIDUAL MODIFICATION																																																																																																																																																																																																																				
MODIFICATION TITLE: Stinger Block I Platform Upgrades 01-87-03-1510										Date																																																																																																																																																																																																										
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 Read Only Memory (EEPROM) Modules must be procured and installed in existing, fielded gripstocks. For Air-to-Air Stinger, Bradley Linebacker, and Avenger, new A-1 Circuit Card Assemblies must be procured and installed in each system's Interface Electronics Assembly. Without modifications, Block I missiles fired from these platforms will perform the same as Stinger-RMP missiles, negating the Block I missile's improved performance. ROM Modules are installed by government employees; A-1 Circuit Card Assemblies are installed by contractors.																																																																																																																																																																																																																				
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Development has been completed.																																																																																																																																																																																																																				
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">FY 2006</th> <th colspan="4">FY 2007</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>To Complete</th><th></th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> </tbody> </table>															Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																					Totals																						FY 2004				FY 2005				FY 2006				FY 2007				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete		Inputs																			Outputs																			Totals																		
Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003																																																																																																																																																																																																			
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METHOD OF IMPLEMENTATION: <table style="width: 100%;"> <tr> <td style="width: 25%;">Contract Dates:</td> <td style="width: 25%;">FY 1999 1st Qtr, FY99</td> <td style="width: 25%;">FY 2000</td> <td style="width: 25%;">FY 2001</td> </tr> <tr> <td>Delivery Date:</td> <td>FY 1999 3rd Qtr, FY99</td> <td>FY 2000</td> <td>FY 2001</td> </tr> </table> ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 6 Months															Contract Dates:	FY 1999 1st Qtr, FY99	FY 2000	FY 2001	Delivery Date:	FY 1999 3rd Qtr, FY99	FY 2000	FY 2001																																																																																																																																																																																														
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Delivery Date:	FY 1999 3rd Qtr, FY99	FY 2000	FY 2001																																																																																																																																																																																																																	

INDIVIDUAL MODIFICATION														Date		February 2000			
Stinger Block I Platform Upgrades 01-87-03-1510																			
MODIFICATION TITLE (Cont):																			
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	\$
3,962	3.9			717	1.0	1,655	1.7	1,819	3.8	314	0.8							8,467	11.1
RDT&E																			
PROCUREMENT																			
Kit Quantity																			
Installation Kits																			
Installation Kits, Nonrecurring Equipment																			
Equipment, Nonrecurring																			
Engineering Change Orders																			
Data																			
Training Equipment																			
Support Equipment																			
Other																			
Interim Contractor Support																			
Installation of Hardware																			
FY 1998 & Prior Eqpt-3962																			
FY 1999 Eqpt -- Kits																			
FY 2000 Eqpt -- 717 Kits																			
FY 2001 Eqpt -- 1655 kits																			
FY 2002 Eqpt -- 1819 kits																			
FY 2003 Eqpt -- 314 kits																			
FY 2004 Eqpt -- kits																			
FY 2005 Eqpt -- kits																			
TC Equip-Kits																			
Total Installment																			
Total Procurement Cost																			

Exhibit P-40, Budget Item Justification Sheet											Date:	February 2000
Appropriation / Budget Activity/Serial No:		P-1 Item Nomenclature:									AVENGER MODS (CE8710)	
MISSILE PROCUREMENT / 3 / Modification of Missiles												
Program Elements for Code B Items:		Code:		Other Related Program Elements:								
				C14900 AVENGER SYSTEM SUMMARY, C16200 AVENGER TRAINING DEVICES, C16000 AVENGER PEDESTAL MOUNTED STINGER (MYP), CAO260 AVENGER SPARES, CAO286 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	19.4	0.0	7.2	8.4	4.2	6.8	9.4	8.6	37.2	37.1	169.0	307.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	19.4	0.0	7.2	8.4	4.2	6.8	9.4	8.6	37.2	37.1	169.0	307.3
Initial Spares	1.0											1.0
Total Proc Cost	20.4	0.0	7.2	8.4	4.2	6.8	9.4	8.6	37.2	37.1	169.0	308.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The 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: FY 01 funds supports Avenger Slew-to-Cue and related modifications. These are series of upgrades 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 December 1996. The STC capability will be embedded into a new **Common Fire Control Computer (CFCC)**. The CFCC replaces the existing fire control computer which is obsolete and cannot be cost effectively sustained. The new CFCC provides additional growth and 1553 data bus architecture capabilities to enhance future system performance at lower costs. The **Automatic Video Tracker (AVT)** is redesigned to improve clutter tracking performance against low observables such as rotary wing aircraft and cruise missiles. The AVT will be incorporated as an additional circuit card within the new CFCC. The single card AVT replaces the existing AVT Line Replaceable Unit (LRU). This MOD also fixes an obsolescence problem, simplifies maintenance, and reduces logistics burden. Development and integration is occurring with the current engineering effort and 637 units will be procured from FY00 through FY05.

Exhibit P-40M Budget Item Justification Sheet												Date	February 2000
Appropriation / Budget Activity/Serial No.		P-1 Item Nomenclature											
MISSILE PROCUREMENT / 3 / Modification of Missiles		AVENGER MODS (CE8710)											
Program Elements for Code B Items		Code	Other Related Program Elements										
Description		Fiscal Years											
OSJP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total		
AVENGER SLEW-TO-CUE/COMMON FIRE CONTROL COMPUTER/AUTOMATIC VIDEO TRACKER													
	OPERATIONAL	7.2	8.4	4.2	6.8	9.4	8.6	37.2	37.1	7.5	126.4		
Totals		7.2	8.4	4.2	6.8	9.4	8.6	37.2	37.1	7.5	126.4		

INDIVIDUAL MODIFICATION															Date	February 2000	
MODIFICATION TITLE: AVENGER SLEW-TO-CUE/COMMON FIRE CONTROL COMPUTER/AUTOMATIC VIDEO TRACKER																	
MODELS OF SYSTEMS AFFECTED: Avenger																	
DESCRIPTION / JUSTIFICATION:																	
The Slew-to-cue (STC) upgrade accepts sensor track data from the FAADC21 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 WRAP Council in December 1996 which provided \$5.8M in FY 97 R&D funds for the Development/Prototype contract. The STC will be embedded into the CFCC. The redesigned AVT will improve clutter tracking performance (especially of low observable) minimize the adverse impacts of obsolescence, reduce the logistics burden and simplify maintenance. The AVT is part of the Avenger Obsolescence Mitigation & Low Observable Enhancements.																	
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 CFCC) JUL-AUG 98 MSIII (PRODUCTION OPTION) 30 MAR 99 QUALIFICATION TEST COMPLETE MAR 00 PRODUCTION OPTION APR 00																	
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
Inputs		24			56									40			48
Outputs		24			56				35					40			48
		FY 2004			FY 2005			FY 2006			FY 2007			Totals			
1		2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete
63		63	63	63	54	54	54	54	55				43				764
Outputs		63	63	63	63	54	54	54	55				43				764
METHOD OF IMPLEMENTATION:																	
ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 7 Months Contract Dates: FY 1999 MAR 99 FY 2000 NOV 00 Delivery Date: FY 1999 DEC 99 FY 2000 AUG 01																	

INDIVIDUAL MODIFICATION														Date		February 2000				
AVENGER SLEW-TO-CUE/COMMON FIRE CONTROL COMPUTER /AVT (STC/CFCC/AVT)																				
MODIFICATION TITLE (Cont):																				
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		35		40		49		48		252		217		43		764	
Installation Kits																				
Installation Kits, Nonrecurring Equipment		3.8		6.8		4.2		4.9		6.1		5.6		32.9		28.9		5.9		99.0
Equipment, Nonrecurring		0.2								0.4				0.4		0.3				0.6
I&KP Training		0.4								0.4										1.5
FAT/PCI																				0.6
Kit Refurbishment				0.6																
Specs & Tech Support																				
Other										0.5										0.5
Project Management Support				0.6				0.5		0.3		0.5		0.8		1.9		0.6		5.2
Contractor Logistics Support		2.5						1.1		1.4		0.9		1.4		2.9		0.5		10.8
Installation of Hardware																				
FY 1998 & Prior Eqpt 24 Kits	24	0.3																	24	0.3
FY 1999 Eqpt 56 Kits			56	0.4															56	0.4
FY 2000 Eqpt 35 Kits					35														35	
FY 2001 Eqpt 40 Kits							40	0.3											40	0.3
FY 2002 Eqpt 49 kits									49	0.4									49	0.4
FY 2003 Eqpt 48 kits											48	1.6							48	1.6
FY 2004 Eqpt 252 kits													252	1.8					252	1.8
FY 2005 Eqpt 217 kits															217	3.0			217	3.0
TC Equip 43 Kits																	43	0.5	43	0.5
Total Installation	24	0.3	56	0.4	35		40	0.3	49	0.4	48	1.6	252	1.8	217	3.0	43	0.5	764	8.3
Total Procurement Cost		7.2		8.4		4.2		6.8		9.4		8.6		37.2		37.1		7.5		126.4

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
MISSILE PROCUREMENT / 3 / Modification of Missiles												ITASTOW MODS (C61700)	
Program Elements for Code B Items:												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	546.8	2.8	62.8	63.0	67.7	64.6	67.4	59.8	63.5	59.9	644.3	1702.6	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	546.8	2.8	62.8	63.0	67.7	64.6	67.4	59.8	63.5	59.9	644.3	1702.6	
Initial Spares*	25.2		4.4	5.4	4.0							39.0	
Total Proc Cost	572.0	2.8	67.2	68.4	71.7	64.6	67.4	59.8	63.5	59.9	644.3	1741.6	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: The TOW Improved Target Acquisition System (ITAS) program provides the "first to fight" Infantry Forces with a significant improvement in anti-armor capability through an upgrade of the TOW Heavy Antitank Weapon System. The ITAS makes the Light Infantry Force more lethal and survivable against threat armor by more than doubling the target detection and recognition ranges, improving the probability of hit and enhancing fire control capabilities. The missile modification Missile Ordnance Inhibit Circuit (MOIC) and Missile Conversion (MC) are required to meet training and safety requirements in order to maintain TOW gunner proficiency. The Counter Active Protection System (CAPS) modification provides the TOW 2B missile with the capability to counter the Active Protection System (APS) currently being deployed on threat armor systems.

JUSTIFICATION: Funding is required for the procurement of ITAS in order to equip the Army's Infantry Forces with a more lethal, survivable and rapidly deployable anti-armor capability. With the widespread proliferation of modernized armor systems to potential adversaries, the procurement and fielding of ITAS mitigates the Army's operational risks associated with the time frame between the insertion of Infantry Forces in response to a regional crisis and the arrival of friendly follow-on Mechanized Forces. The procurement and fielding of ITAS significantly improves the Army's posture against regionally based threats, promotes effective crisis response, and increases overall readiness. This is the platform for the future TOW Fire and Forget missile.

Exhibit P-40M Budget Item Justification Sheet												Date
Appropriation / Budget Activity/Serial No.			P-1 Item Nomenclature			February 2000						
MISSILE PROCUREMENT / 3 / Modification of Missiles			ITAS/TOW MODS (C61700)									
Program Elements for Code B Items			Code	Other Related Program Elements								
Description			Fiscal Years									
OSIP NO.	Classification		FY97-98	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	5.2	6.0	6.0	39.4	93.8
MISSILE MODIFICATION (MOIC) (No P3a Set)												
MC-1-82-03-3021	SAFETY		13.8	0.2	0.0	0.0	0.0	0.3	0.7	0.7	4.8	20.5
ITAS (IMPROVED TARGET ACQUISITION SYSTEM)												
MC-1-89-03-3028	OPERATIONAL		100.1	61.4	60.9	64.6	67.4	54.3	56.8	53.2	600.1	1,118.8
CAPS(COUNTER ACTIVE PROTECTIVE SYSTEMS)												
MC-1-98-03-3030	OPERATIONAL		0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	6.8
Totals			149.7	63.0	67.7	64.6	67.4	59.8	63.5	59.9	644.3	1,239.9

INDIVIDUAL MODIFICATION																																																																																																																																																																																												
													Date	February 2000																																																																																																																																																																														
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, 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																																																																																																																																																																																												
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Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003																																																																																																																																																																											
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METHOD OF IMPLEMENTATION: <table style="width: 100%;"> <tr> <td style="width: 33%;">Contract Dates:</td> <td style="width: 33%;">FY 1999</td> <td style="width: 33%;">N/A</td> </tr> <tr> <td>Delivery Date:</td> <td>FY 1999</td> <td>N/A</td> </tr> </table> <table style="width: 100%;"> <tr> <td style="width: 33%;">ADMINISTRATIVE LEADTIME:</td> <td style="width: 33%;">12 Months</td> <td style="width: 33%;">PRODUCTION LEADTIME:</td> </tr> <tr> <td></td> <td></td> <td>12 Months</td> </tr> </table>															Contract Dates:	FY 1999	N/A	Delivery Date:	FY 1999	N/A	ADMINISTRATIVE LEADTIME:	12 Months	PRODUCTION LEADTIME:			12 Months																																																																																																																																																																		
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INDIVIDUAL MODIFICATION														Date		February 2000				
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									4327	5.2	3184	3.9	3491	4.4	19737	26.9	93952	62.7
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													4327	2.1	3184	1.6			4327	2.1
FY 2004 Eqpt -- kits																			3184	1.6
FY 2005 Eqpt -- kits																			3491	1.8
TC Equip-Kits																			19737	10.7
Total Installment	60213	13.5	3000	1.4									4327	2.1	3184	1.6	23228	12.5	93952	31.1
Total Procurement Cost		35.8		1.4							5.2			6.0		6.0		39.4		93.8

INDIVIDUAL MODIFICATION												Date	February 2000
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 provides improved target detection and acquisition range, improved probability of hit and enhanced fire control capabilities that upgrades the anti-armor capability of 'first to fight' Infantry Forces using the TOW system. ITAS supports the U.S. Army mission of crisis response to regionally based threats.													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:													
FUE Milestone III Decision Contract Conversion to Multiyear				PLANNED Sep 98 May 99 Nov 99				ACCOMPLISHED Sep 98 Jun 99 Dec 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
Inputs		22	2	1		20	50	4		19	29	27	27
Outputs		8	1	1	2	60	60	60	60	5	40	32	20
		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
1		2	3	4	1	2	3	4	1	2	3	4	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
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Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18		36	82	12	68	68	24	60		
Inputs		FY 2004		FY 2005		FY 2006		FY 2007		To		Totals	
32		30	24	25	24	26	28	25	27	24	24	27	
40		44	18										

INDIVIDUAL MODIFICATION														Date		February 2000					
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	\$		
RD&E	105.0	0.2																	105.2		
PROCUREMENT																					
Kit Quantity	99	102		122		121		126		93		106		99		973		1841			
Installation Kits																					
Installation Kits, Nonrecurring Equipment		84.9	57.4	56.7	57.1	58.4	45.3	50.3	48.0							527.8		985.9			
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data	0.8			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8		2.2			
Training Equipment	11.2			2.9	2.8	2.4	1.9	2.2	2.2							26.4		52.0			
Support Equipment																					
Other	1.0		0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.5		7.2			
ICS/CLS	2.1		3.6	0.8	4.0	5.9	6.3	3.6	2.2							39.1		67.6			
Installation of Hardware																					
FY 1998 & Prior Eqpt -- Kits	8	0.1	3	60	0.1	28	0.1											99	0.3		
FY 1999 Eqpt -- Kits						97	0.1	5										102	0.1		
FY 2000 Eqpt -- Kits								113	0.2	9	0.3	4						122	0.2		
FY 2001 Eqpt -- Kits										117		98	0.2	28	0.1			121	0.3		
FY 2002 Eqpt -- kits														93	0.2			126	0.3		
FY 2003 Eqpt -- kits														9		97	0.2	93	0.2		
FY 2004 Eqpt -- kits																99	0.2	106	0.2		
FY 2005 Eqpt -- kits																		99	0.2		
TC Equip-Kits																973	2.1	973	2.1		
Total Installment	8	0.1	3	60	0.1	125	0.2	118	0.2	126	0.3	102	0.2	130	0.3	1169	2.5	1841	3.9		
Total Procurement Cost		100.1		61.4	60.9		64.6		67.4		54.3		56.8		53.2		600.1		1118.8		

INDIVIDUAL MODIFICATION																																																																																																																																																																																												
MODIFICATION TITLE: CAPS(COUNTER ACTIVE PROTECTIVE SYSTEMS) MC-1-98-03-3030														Date																																																																																																																																																																														
February 2000																																																																																																																																																																																												
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 2B 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: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>200</td><td>600</td><td>200</td><td>200</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">FY 2006</th> <th colspan="4">FY 2007</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>1000</td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>1000</td> </tr> </tbody> </table>															Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Totals																					Inputs																					Outputs									200	600	200	200									Pr Yr	FY 2004				FY 2005				FY 2006				FY 2007				Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																	1000	Outputs																	1000
Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003																																																																																																																																																																											
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																																								
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Outputs																	1000																																																																																																																																																																											
METHOD OF IMPLEMENTATION: <table style="width: 100%;"> <tr> <td style="width: 33%;">Contract Dates:</td> <td style="width: 33%;">FY 1999</td> <td style="width: 33%;">FY 2000</td> </tr> <tr> <td>Delivery Date:</td> <td>FY 1999</td> <td>FY 2000</td> </tr> </table> <table style="width: 100%;"> <tr> <td style="width: 33%;">ADMINISTRATIVE LEADTIME:</td> <td style="width: 33%;">8 Months</td> <td style="width: 33%;">PRODUCTION LEADTIME:</td> </tr> <tr> <td></td> <td>2Q00</td> <td>FY 2001</td> </tr> <tr> <td></td> <td>1Q00</td> <td>FY 2001</td> </tr> </table>															Contract Dates:	FY 1999	FY 2000	Delivery Date:	FY 1999	FY 2000	ADMINISTRATIVE LEADTIME:	8 Months	PRODUCTION LEADTIME:		2Q00	FY 2001		1Q00	FY 2001																																																																																																																																																															
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INDIVIDUAL MODIFICATION													
MODIFICATION TITLE (Cont):												Date	February 2000
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	Qty	Qty	\$
RDT&E													
PROCUREMENT													
Kit Quantity			1000									1000	
Installation Kits													
Installation Kits, Nonrecurring													
Equipment													
Equipment, Nonrecurring			6.8										6.8
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			6.8										6.8
Total Procurement Cost													

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
MISSILE PROCUREMENT / 3 / Modification of Missiles												MLRS MODS (C67500)	
Program Elements for Code B Items:												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	2.8	6.6	16.5	24.3	25.2	23.4	17.4	181.1	534.7	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	224.0	12.8	0.6	2.8	6.6	16.5	24.3	25.2	23.4	17.4	181.1	534.7	
Initial Spares	12.8	1.8		0.0	0.5	0.8	0.9	5.7	1.4	6.0	47.5	77.3	
Total Proc Cost	236.8	14.7	0.6	2.8	7.1	17.3	25.2	30.9	24.8	23.4	228.6	612.1	
Flyaway U/C													
Wpn Sys Proc U/C													

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

JUSTIFICATION: The FY 01 program funds Transmission Electronic Controller upgrades, Vehicular Intercommunication (VIC), Interim Improved Position Determining System (IPDS) Launcher contractor logistics support, Joint Technical Architecture-Army (JTA-A), Improved Communications Processor (ICMP), Suspension Lockout System Improvements and Obsolescence Mitigation/Engineering Change Proposal Reliability Integration.

Exhibit P-40M Budget Item Justification Sheet										Date
Appropriation / Budget Activity/Serial No.										February 2000
MISSILE PROCUREMENT / 3 / Modification of Missiles										MLRS MODS (C67500)
Program Elements for Code B Items										
P-1 Item Nomenclature										
Other Related Program Elements										
Code										
Fiscal Years										
OSIP NO.	Classification	FY 98&PY	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Total
Inactive Mods										
Prior Year MCs	Oper/Safety/Reliab	184.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	184.8
Transmission Electronic Controller (TEC)										
1-94-03-0522	Operational	33.0	0.4	1.1	1.2	0.9	1.5	1.6	1.6	43.1
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	27.7
Selective Availability Anti-Spoofing Module (SAASM) (No P3a Set)										
1-97-03-0534	Operational	0.0	0.0	0.0	0.0	3.8	3.2	0.0	0.0	7.0
Joint Technical Architecture-Army (JTA-A)										
1-98-03-0537	Operational	0.0	0.0	0.0	8.9	0.1	0.0	0.0	0.0	9.0
Improved Communications Processor (ICMP)										
1-98-03-0540	Operational	0.0	0.0	1.0	0.7	0.0	0.0	0.0	0.0	1.7
Streamlined Tech Enhancement Program (STEP) (No P3a Set)										
1-98-03-0541	Operational	0.0	0.0	0.0	0.0	5.4	9.9	9.8	11.7	85.1
Engine/Transmission Diagnostic (No P3a Set)										
1-98-03-0542	Operational	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.3	6.8
Vehicular Intercommunication (V/C) - 3										
1-99-03-0544	Operational	0.0	0.0	0.8	0.2	0.0	0.0	0.0	0.0	1.0
Azimuth Geared Bearing Dust Cover Modification										
1-99-03-0545	Reliability	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.6
Weapons Interface Unit Modification (No P3a Set)										
1-99-03-0546	Operational	0.0	0.0	0.0	0.0	8.8	5.3	0.2	0.0	14.3
Suspension Lockout (SLO) Improvement										
1-99-03-0547	Reliability	0.0	0.0	0.4	0.5	0.3	0.4	0.5	0.5	4.5

Exhibit P-40M Budget Item Justification Sheet										Date	February 2000	
Appropriation / Budget Activity/Serial No.			MISSILE PROCUREMENT / 3 / Modification of Missiles			P-1 Item Nomenclature					MLRS MODS (C67500)	
Program Elements for Code B Items			Code		Other Related Program Elements							
Description			Fiscal Years									
OSIP NO.	Classification	FY 98&PY	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total	
Obsolescence Mitigation/ECP Reliability Integration												
1-99-03-Obsc	Operational	0.0	1.1	1.4	3.6	3.6	3.5	3.4	3.3	129.0	148.9	
Totals		237.4	2.8	6.6	16.5	24.3	25.2	23.4	17.4	181.1	534.6	

INDIVIDUAL MODIFICATION												Date	February 2000
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.													
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
Inputs		1632			52		54		71		90		140
Outputs		773	5		66	132	132	132	102	17	18	18	22
													24
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs		145			145		125		35		35		2489
Outputs		35	35	35	36	36	36	36	37	31	31	31	2489
METHOD OF IMPLEMENTATION: Contractor/Depot													
Contract Dates: FY 1999 Dec 98													
Delivery Date: FY 1999 Aug 99													
ADMINISTRATIVE LEADTIME: 6 Months													
PRODUCTION LEADTIME: 6 Months													
FY 2001 Jan 01													
FY 2001 Jun 01													
Totals													

INDIVIDUAL MODIFICATION																	Date		February 2000	
Transmission Electronic Controller (TEC) 1-94-03-0522																				
MODIFICATION TITLE (Cont):																				
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	\$	
1632	25.4	52	0.3	54	0.5	71	0.7	90	0.9	140	1.5	145	1.6	145	1.6	160	1.8	2489	34.4	
RD&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
*Note:																				
In FY 02 and subsequent years installation will be concurrent with M270A1 launcher remanufacture program.																				
Installation of Hardware																				
773	7.6	71	0.1	528	0.6	260	0.2											1632	8.5	
						28	0.3											28	0.3	
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																				
773	7.6	71	0.1	528	0.6	288	0.5											1660	8.8	
33.0																			43.1	

INDIVIDUAL MODIFICATION											
MODIFICATION TITLE: Interim Improved Position Determining System (IPDS) Launcher 1-94-03-0528										Date	
February 2000											
MODELS OF SYSTEMS AFFECTED: Multiple Launch Rocket System (MLRS)											
DESCRIPTION / JUSTIFICATION:											
A special interim launcher configuration was required to allow the current M270 platform to fire all of its existing fielded M270 Family of Munitions and to incorporate a new requirement to fire the Army Tactical Missile System (ATACMS) Block IA. The Block IA missile was fielded in 1QFY98 and required Global Positioning System (GPS) interface at the time of launch. This modification was 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 incorporated the Interim Launcher Improved Position Determining System (IPDS) Line Replaceable Unit, a GPS antenna, associated cabling with armor protection, hoist bumper pads, a modification to the existing M68 Missile/Launch Pod Assembly trainer, and sufficient Random Access Memory, with the Non Volatile Memory Module to support the software loaded into the Improved Electronic Unit. Installation was included in the cost of the modification kit. The remaining funds in FY 99 through FY 04 are to provide interim contractor support.											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Modification has been integrated into the launchers as an interim program in support of the ATACMS 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
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
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Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
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Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
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Totals		1	2	3	4	1	2	3	4	1	2
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Inputs		29									
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
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Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
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Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
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Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
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Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
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Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
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Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									
Outputs		29									
Totals		1	2	3	4	1	2	3	4	1	2
Inputs		29									



DEFENSE INFORMATION SYSTEMS AGENCY
DEFENSE TECHNICAL INFORMATION CENTER
8725 JOHN J KINGMAN RD STE 0944

FT BELVOIR VA 22060-6215

IN REPLY
REFER TO

INDIVIDUAL MODIFICATION																
Date February 2000																
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 a standard for the Department of the Army FORCE XXI directed situational awareness enhancements to the soldier, ultimately reducing the chances of fratricide on the battlefield. Quantities reflected in FY 01 are 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
Inputs																
Outputs																
Inputs																
Outputs																
METHOD OF IMPLEMENTATION: Contractor																
Contract Dates: FY 1999																
Delivery Date: FY 1999																
ADMINISTRATIVE LEADTIME: 3 Months																
PRODUCTION LEADTIME: 2 Months																
Totals																
84																
84																

INDIVIDUAL MODIFICATION																			February 2000	
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							84	8.6											84	8.6
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																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits							63	0.4	21	0.1									84	0.5
TC Equip-Kits																				
Total Installment							63	0.4	21	0.1									84	0.5
Total Procurement Cost								8.9		0.1										9.0

INDIVIDUAL MODIFICATION																				
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					690	0.6	610	0.4											690	0.6
FY 2001 Eqpt -- Kits																			610	0.4
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment					690	0.6	610	0.4											1300	1.0
Total Procurement Cost						1.0		0.7												1.7

INDIVIDUAL MODIFICATION														
Date														February 2000
MODIFICATION TITLE: Vehicular Intercommunication (VIC) - 3 1-99-03-0544														
MODELS OF SYSTEMS AFFECTED: Multiple Launch Rocket System (MLRS)														
DESCRIPTION / JUSTIFICATION: A requirement exists for an improved intercommunication and radio-control system within ground mobile combat vehicles. The Vehicular Intercommunication (VIC)-3 system was developed by the Vehicle Intercommunications System (VIS) Special Projects Office. This modification offers both operational and safety enhancement to the M270 and M270A1 Launcher. These improvements are digital enhancements to improve speech quality and articulation, headsets that incorporate active noise reduction circuitry to increase the effectiveness of vehicle communications, and increased hearing protection in the noisy environment of combat vehicles.														
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Development complete on VIC-3 system.														
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	
Inputs				146		220		216		216		72		
Outputs						207		207		208		89		
Totals														
Inputs														
Outputs														
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INDIVIDUAL MODIFICATION															Date	February 2000																																																																																																								
MODIFICATION TITLE: Azimuth Geared Bearing Dust Cover Modification 1-99-03-0545																																																																																																																								
MODELS OF SYSTEMS AFFECTED: Multiple Launch Rocket System (MLRS)																																																																																																																								
DESCRIPTION / JUSTIFICATION: A dust cover to shield sand and dust intrusion into the Azimuth Geared Bearing was developed to prevent contamination to the line replaceable unit, thus preventing the bearing from seizing. This modification will increase reliability of the Azimuth Geared Bearing, thus reducing cost to the fielded units. Procurement is planned for 900 Azimuth Geared Bearing dust cover kits in FY 00. Installation is planned for 45 in FY 00 and 137 in FY 01. The balance of the modification kits will be incorporated in conjunction with remanufacture.																																																																																																																								
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Development complete.																																																																																																																								
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>45</td> <td></td><td></td><td></td><td>90</td> <td></td><td></td><td></td><td>90</td> <td></td><td></td><td></td><td></td> </tr> </table>																	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Totals																					Inputs																					Outputs								45				90				90				
Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002					FY 2003																																																																																																						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																				
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<table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">FY 2006</th> <th colspan="4">FY 2007</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>To Complete</th><th>To</th> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td>90</td> <td></td><td></td><td></td><td>90</td> <td></td><td></td><td></td><td>110</td> <td></td><td></td><td></td><td>110</td> <td>138</td><td>900</td> </tr> </table>																	Pr Yr	FY 2004				FY 2005				FY 2006				FY 2007				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	To	Inputs																			Outputs				90				90				110				110	138	900																													
Pr Yr	FY 2004				FY 2005				FY 2006				FY 2007					Totals																																																																																																						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	To																																																																																																						
Inputs																																																																																																																								
Outputs				90				90				110				110	138	900																																																																																																						
METHOD OF IMPLEMENTATION: Contractor/Depot Contract Dates: FY 1999 Delivery Date: FY 1999																																																																																																																								
ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 6 Months Contract Dates: FY 2000 Jan 00 Delivery Date: FY 2000 Jul 00																																																																																																																								

INDIVIDUAL MODIFICATION												
Date												February 2000
MODIFICATION TITLE (Cont): Azimuth Geared Bearing Dust Cover Modification 1-99-03-0545												
FINANCIAL PLAN: (\$ in Millions)												
FY 1998 and Prior	FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RD&E												
PROCUREMENT												
Kit Quantity			900	0.6								
Installation Kits												
Installation Kits, Nonrecurring												
Equipment												
Equipment, Nonrecurring												
Engineering Change Orders												
Data												
Training Equipment												
Support Equipment												
Other												
Interim Contractor Support												
* NOTE												
Installation of kits funded under												
remanufacture program.												
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			0.6									0.6

INDIVIDUAL MODIFICATION																			February 2000	
Date																				
MODIFICATION TITLE (Cont):																				
Suspension Lockout (SLO) Improvement 1-99-03-0547																				
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																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Balance of installation to be performed under M270A1 program.																				
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																				

INDIVIDUAL MODIFICATION																				
Date														February 2000						
MODIFICATION TITLE: Obsolescence Mitigation/ECP Reliability Integration 1-99-03-Obse																				
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 obsolescence, this modification plans for future replacement of launcher electronic components. Circuit Cards in the Line Replaceable Units, e.g., Improved Electronic Unit and Fire Control Unit, are already obsolete or rapidly approaching obsolescence. The funding on this program will procure modification kits which will incorporate the 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 the Improved Fire Control System and the Improved Launcher Mechanical System 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.																				
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			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs																				
Outputs																				
Pr Yr	FY 2004				FY 2005				FY 2006				FY 2007				Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Totals																				
Inputs																				
Outputs																				
METHOD OF IMPLEMENTATION: Contractor/Depot ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months																				
Contract Dates: FY 1999 FY 2000 FY 2001 FY 2001																				
Delivery Date: FY 1999 FY 2000 FY 2001 FY 2001																				

INDIVIDUAL MODIFICATION																			February 2000	
Obsolescence Mitigation/ECP Reliability Integration 1-99-03-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			1.1			1.4		3.6		3.6		3.5		3.4		3.3		129.0		148.9
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			1.1		1.4		3.6		3.6		3.5		3.4		3.3		129.0			148.9
Total Procurement Cost																				

Exhibit P-40, Budget Item Justification Sheet											
Appropriation / Budget Activity/Serial No.				Date:				February 2000			
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	Total Prog
Proc Qty											
Gross Cost	2702.5	8.0	8.4	18.8	18.8	20.8	25.7	34.0	37.3	24.9	3104.3
Less PY Adv Proc											
Plus CY Adv Proc											
Net Proc (P-1)	2702.4	8.0	8.4	18.8	18.8	20.8	25.7	34.0	37.3	24.9	3100.9
Initial Spares											
Total Proc Cost	2702.4	8.0	8.4	18.8	18.8	20.8	25.7	34.0	37.3	24.9	3100.9
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 Army Working Capital Fund. To provide initial support, funds are normally required in the same year that end items are fielded. The Initial spares breakout follows:											
		FY 99	FY 00	FY 01							
JAVELIN		3.7	4.5	6.6							
MLRS		4.8	6.2	6.5							
ATACMS BLK II				1.4							
PATRIOT MODS		4.9	3.6	2.6							
AVENGER				2.9							
ITAS/TOW MODS		5.4	4.0								
MLRS MODS			.5	.8							
Total		18.8	18.8	20.8							

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000	
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:				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	356.4	6.2	1.0	2.5	2.4	2.4	2.5	2.5	2.5	2.6	0.0	380.9		
Less PY Adv Proc														
Plus CY Adv Proc														
Net Proc (P-1)	356.4	6.2	1.0	2.5	2.4	2.4	2.5	2.5	2.5	2.6	0.0	380.9		
Initial Spares														
Total Proc Cost	356.4	6.2	1.0	2.5	2.4	2.4	2.5	2.5	2.5	2.6	0.0	380.9		
Flyaway U/C														
Wpn Sys Proc U/C														

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

During the budget years, the following items will be procured: the 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.

JUSTIFICATION: In support of soldier training, targets are provided to support these fielded systems: Avenger, MANPADS, Air-to-Air Stinger, Bradley Stinger Fighting Vehicle (BSFV) and Linebacker. Major items of target hardware which support or will support soldier training include the 1/5th Scale RPVT, the target control systems and ancillary equipment. Training requirements are generated by Department of Army major field commands, Training Centers, and Division Level Commands. These field requirements have been reviewed against fielding and force restructuring plans; they are consistent with approved training doctrine.

Exhibit P-5, Weapon Missiles Cost Analysis			Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 5 / Support Equipment and Facilities			P-1 Line Item Nomenclature: AIR DEFENSE TARGETS (C93000)			Weapon System Type:			Date: February 2000		
ID	CD	Cost Elements	FY 98			FY 99			FY 00			FY 01		
			TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
MQM-107														
		-Airframe/Engine												
		-Technical Publications												
		-Operating Costs				254			225					
		-Other Costs				725			221					
		SUBTOTAL				979			446					
RCMAT														
		-Hardware												
		-Operating Costs				27								
		-Other Costs				17								
		SUBTOTAL				44								
1/5 SCALE														
		-Hardware				470			795	265		1999	650	
		-Operating Costs				156			160			157		
		-Other Costs				531			691			126		
		SUBTOTAL				1157			1646			2282		
BATS														
		-Hardware												
		-Operating Costs				8			8					
		-Other Costs				46			43					
		SUBTOTAL				54			51					
TOWED TARGETS														
		-Hardware												
		-Operating Costs				5								
		-Other Costs				2								
		SUBTOTAL				7								
GROUND CONTROL SYSTEMS														
		-Hardware												
		-Operating Costs												
		-Other Costs												
		SUBTOTAL												
ANCILLARY/AUGMENTATION														
		-Hardware				28			53	2		110		
		-Operating Costs				99			82			2		
		-Other Costs				144			74			112		
		SUBTOTAL				271			209			2394		
GRAND TOTAL						2512								

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2000
Appropriation / Budget Activity/Serial No:		Weapon System Type:		P-1 Line Item Nomenclature:						
MISSILE PROCUREMENT / 5 / Support Equipment and Facilities				AIR DEFENSE TARGETS (C93000)						
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
Fiscal Years										
1/5 Scale										
FY99	Continental RPV, Barstow, CA	FP	AMCOM	Nov-98	Jan-99	235		Yes		Option
FY00	Continental RPV, Barstow, CA	FP	AMCOM	Oct-99	Dec-99	265		Yes		Option
FY01	Continental RPV, Barstow, CA	FP	AMCOM	Oct-00	Dec-00	650		Yes		Option
ANCILLARY/AUGMENTATION										
FY99										
- GSQ-102 Scoring Ground Stations	Cartwright Eng., Fullerton, CA	FP	AMCOM	Mar-99	May-99	1		Yes		Option
FY00										
- GSQ-102 Scoring Ground Stations	Cartwright Eng., Fullerton, CA	FP	AMCOM	Nov-99	Jul-00	2		Yes		Option
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet												Date:	February 2000
Appropriation / Budget Activity/Serial No:		P-1 Item Nomenclature:										ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)	
MISSILE PROCUREMENT / 5 / Support Equipment and Facilities													
Program Elements for Code B Items:		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	35.0	1.0	0.9	0.9	1.0	1.0	1.0	0.9	0.9	1.0	0.0	43.6	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	35.0	1.0	0.9	0.9	1.0	1.0	1.0	0.9	0.9	1.0	0.0	43.6	
Initial Spares													
Total Proc Cost	35.0	1.0	0.9	0.9	1.0	1.0	1.0	0.9	0.9	1.0	0.0	43.6	
Fltway U/C													
Wpnt 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 tools and shop sets to support the following systems: MLRS TOW AVENGER													

Exhibit P-5, Weapon Missiles Cost Analysis			Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 5 / Support Equipment and Facilities				P-1 Line Item Nomenclature: ITEMS LESS THAN \$5.0M (MISSILES) (CL2000)				Weapon System Type:		Date:		36557	
Cost Elements			FY 98		FY 99		FY 00		FY 01		FY 01		FY 01		FY 01	
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost		
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each
1. MLRS COMPONENTS ASSEMBLY					457 238			459 279			453 279					
1. TOW COMPONENTS ASSEMBLY					14 6			22 12			22 9					
1. AVENGER COMPONENTS ASSEMBLY					131 68			120 89			120 86					
TOTAL					914			981			969					
NOTE: AL ARE MISSILE TOOL KITS NO MODS																

Exhibit P-40, Budget Item Justification Sheet											Date:	February 2000
Appropriation / Budget Activity/Serial No:				P-1 Item Nomenclature:				MISSILE DEMILITARIZATION (HL2000)				
MISSILE PROCUREMENT / S / Support Equipment and Facilities												
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	1.3	1.4	5.0	7.3	13.1		35.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1.6	1.5	1.5	1.5	1.4	1.3	1.4	5.0	7.3	13.1		35.5
Initial Spares												
Total Proc Cost	1.6	1.5	1.5	1.5	1.4	1.3	1.4	5.0	7.3	13.1		35.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The Missile Demilitarization Program provides for the demilitarization of Army missiles and missile components that are obsolete or excess to Army requirements, in accordance with the guidelines of the Resource Conservation and Recovery Act.

JUSTIFICATION: Demilitarization of tactical missiles employs the Resource Recovery and Recycling (R3) method. This approach is consistent with national and international environmental policies and Army Materiel Command directives. The tactical missiles and component stockpiles will expand dramatically by FY 04. The stockpiles will grow to over 600,000 missiles and components by 2014. Approximately 50,000 missiles/components are in the current stockpile awaiting demilitarization. Because the current stockpile is small, the Army relies on the Open Burn Open Detonation (OB/OD) destruction method. The increasing quantity of missiles and components requiring disposition makes continued use of this method infeasible. The OB/OD approach cannot continue to be relied upon to handle the large and emerging Army missile demilitarization requirements. The funding in FY01 will continue the process of demilitarization of priority one (obsolete, excess, environment-sensitive and using valuable storage space) missiles, i.e., SHILLELAGH, NIKE-HERCULES, and TOW.

Exhibit P-40, Budget Item Justification Sheet											Date:	February 2000
Appropriation / Budget Activity/Serial No:											P-1 Item Nomenclature:	
MISSILE PROCUREMENT / S / Support Equipment and Facilities											PRODUCTION BASE SUPPORT (CA0100)	
Program Elements for Code B Items:											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	591.3	1.7	3.3	3.2	3.2	3.1	3.4	3.4	3.5	3.5	0.0	619.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	591.3	1.7	3.3	3.2	3.2	3.1	3.4	3.4	3.5	3.5	0.0	619.6
Initial Spares												
Total Proc Cost	591.3	1.7	3.3	3.2	3.2	3.1	3.4	3.4	3.5	3.5	0.0	619.6
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 FY01 funds include 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. The FY01 funds will also be important to sustain the Army's missile warhead production capability, to eliminate safety hazards, etc., at the Iowa Army Ammunition Plant.

Examples of projects funded include:

Redstone Technical Test Center - production test range instrumentation upgrade, tape recorder upgrade

White Sands Missile Range - test equipment replacement, dynamic vibration test equipment

Iowa Army Ammunition Plant - 800 ton warhead billet press, coordinate measurement machine, mass spectrometer with thermal analyzer.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 5 / Support Equipment and Facilities			P-1 Line Item Nomenclature: PRODUCTION BASE SUPPORT (CA0100)			Weapon System Type:			Date: February 2000		
		FY 98			FY 99			FY 00			FY 01		
Cost Elements		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
These funds purchase new or upgrade existing production acceptance test equipment and instrumentation for Redstone Technical Test Center and White Sands Missile Range.					1486			1468			1446		
Iowa Army Ammo Plant (IAAP). Funds are essential to sustain the Army's missile warhead production capability, to eliminate safety hazards by replacing worn equipment and to refurbish facilities.					1743			1724			1698		
TOTAL					3229			3192			3144		