Missiles … PFORMS

Item	Item	Item	Item	Item	Item
20648139	21243115	22684147	24094147	26472139	28600147
20649139	21338139	22690147	24662144	26552139	
20962121	21512147	23902147	25900139	26800139	
21242107	22104139	23972139	26100139	26810139	

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

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

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty	703	872	1010	1020	894	3316	5458	5403	7038			25714
Gross Cost	224.5	210.0	200.9	160.0	148.2	345.6	454.2	397.7	460.4	73.0	80.7	2755.2
Less PY Adv Proc	18.3				9.1	25.6						53.0
Plus CY Adv Proc	18.3			34.7								53.0
Net Proc (P-1)	224.5	210.0	200.9	194.8	139.1	320.0	454.2	397.7	460.4	73.0	80.7	2755.2
Initial Spares						4.7	4.7	6.7	7.9	8.1	16.0	48.1
Total Proc Cost	224.5	210.0	200.9	194.8	139.1	324.7	458.9	404.4	468.3	81.1	96.7	2803.3
Flyaway U/C	315.4	229.0	188.6	140.7	136.6	99.8	77.3	68.8	63.2			
Wpn Sys Proc U/C	320.1	243.8	198.9	156.9	140.9	106.2	85.4	75.8	67.6			

DESCRIPTION: This project provides procurement funds for JAVELIN, the medium antitank system for infantry, scouts and combat engineers. These forces must have the capability to defeat numerically superior armored forces. The JAVELIN, a replacement for the DRAGON, is a medium range, manportable antitank system for use in all forms of maneuver operations. It can be delivered by individual paratrooper, door bundle, tracked/wheeled vehicles, rail, ship and air. This system has a high kill rate against all known armor threats at extended ranges under day/night, adverse weather and battlefield obscurant conditions. The system's soft launch permits firing from a fighting position or from an enclosure. JAVELIN is hardened against countermeasures and does not require extensive training for effective employment. The Command Launch Unit (CLU) is reusable and consists of a target acquisition device, Built-in-Test (BIT), a trigger mechanism, and appropriate interfaces. The round includes a missile encased in a disposable launch tube assembly. Attached to the launch tube are CLU mating connector, front and rear shock attenuators, removable front end cap, as well as a replaceable battery coolant unit (BCU), an adjustable replaceable shoulder strap, and a replaceable desiccant.
JUSTIFICATION: The operational concept envisioned for fighting the antiarmor battle requires an effective, extended range, manportable, fire-and-forget, weapon for dismounted combat forces. JAVELIN's fire-and-forget technology allows the gunner to fire and immediately take cover, move to another fighting position, or reload. The JAVELIN provides enhanced lethality over the DRAGON through the use of a tandem warhead which will defeat all known armor threats. It is effective against stationary and moving targets. The JAVELIN is capable of operating at 2.5 times the range (2500m) of the DRAGON with a day/night integrated sight, capable of target acquisition in adverse weather and through battlefield obscurant conditions. This system will have a secondary mission of destroying bunkers and will provide defensive capability against hovering helicopters. The CLU can be used in a stand-alone mode for battlefield surveillance and target selection. There were 3605 rounds procured through FY1997. Another 894 are scheduled for procurement in FY1998 under the second year award of a three-year multiyear contract, and 3316 in FY1999, the final year of the multiyear contract. 17,899 are planned for purchase in subsequent years, with a second three-year multiyear contract FY00-02. Quantities have changed since the FY1998 submission because 186 All Up Rounds (AUR) were reduced from the Army quantity and the USMC will procure them.

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) SYSTEM SUMMARY (CC0007)	Weapon System Type:	Date: February 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Missile Hardware- Recurring													
All Up Round		123220	1010	122	80232	1020	79	70874	900	79	260658	3316	79
Engineering Services		14298			12193			2545			2134		
Engineering Change Orders		2878			2309			2055			5940		
Acceptance Testing		5450			4140			3450			3434		
Fielding		1532			1000			1115			1051		
SubTotal Missile Hardware		**147378**			**99874**			**80039**			**273217**		
Procurement Support													
Government Project Management		5391			5643			5223			6280		
Government Production Engineering		3652			3902			3344			3277		
Publications/Technical Data		577			407			329			416		
SUBTOTAL		**9620**			**9952**			**8896**			**9973**		
Total Flyaway		**156998**			**109826**			**88935**			**283190**		
Command & Launch Hardware													
Command Launch Unit		25056	108	232	26065	206	127	46671	368	127	41425	325	127
Engineering Services		3005			3553			615			452		
Engineering Change Orders		818			665			636			498		
Fielding		4588			3751			1350			948		
SubTotal C&L Hardware		**33467**			**34034**			**49272**			**43323**		
Training Devices													
Field Tactical Trainer - Student Station		7062	54	131	13490	129	105	7843	75	105	15178	144	105
Field Tactical Trainer -Instructor Station		943	23	41	318	13	24	391	16	24	808	33	24
Basic Skills Trainer		2136	16	134	1950	15	130	1684	13	130	2479	19	130
Missile Simulation Round		252	126	2	425	174	2	120	80	2	623	333	2
SubTotal Training Devices		**10393**			**16183**			**10038**			**19088**		
Gross P-1 End Cost		**200858**			**160043**			**148245**			**345601**		
Less: Prior Year Adv Proc								9104			25613		
Net P-1 Full Funding Cost		**200858**			**160043**			**139141**			**319988**		
Plus: P-1 CY Adv Proc					34717								
Other Non P-1 Costs													
Initial Spares											4703		
Mods													
TOTAL		**200858**			**194760**			**139141**			**324691**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

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

Weapon System Type:

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

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
All Up Round										
FY 96	Joint Venture TI/MM*	SS/FP	AMCOM	Feb-96	Mar-98	1010	122			
FY 97	Joint Venture TI/MM*	SS/FP**	AMCOM	May-97	Oct-99	1020	79			
FY 98	Joint Venture TI/MM*	SS/FP**	AMCOM	Dec-97	Oct-00	894	79	Yes		
FY 99	Joint Venture TI/MM*	SS/FP**	AMCOM	Dec-98	Oct-01	3316	79	Yes		
Command Launch Unit										
FY 96	Joint Venture TI/MM*	SS/FP	AMCOM	Feb-96	Oct-98	108	232			
FY 97	Joint Venture TI/MM*	SS/FP**	AMCOM	May-97	Oct-99	206	127			
FY 98	Joint Venture TI/MM*	SS/FP**	AMCOM	Dec-97	Oct-00	368	127	Yes		
FY 99	Joint Venture TI/MM*	SS/FP**	AMCOM	Dec-98	Oct-01	325	127	Yes		

REMARKS: *Lewisville, TX; Orlando, FL
**Multiyear contract

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY97 OCT	FY97 NOV	FY97 DEC	CY97 JAN	CY97 FEB	CY97 MAR	CY97 APR	CY97 MAY	CY97 JUN	CY97 JUL	CY97 AUG	CY97 SEP	FY98 OCT	FY98 NOV	FY98 DEC	CY98 JAN	CY98 FEB	CY98 MAR	CY98 APR	CY98 MAY	CY98 JUN	CY98 JUL	CY98 AUG	CY98 SEP	LATER
All Up Round				703	678	25																								25
	1	FY 96	A	1010	0	1010														86	87	87	87	87	88	88	80	80	80	80
	1	FY 97	A	1020	0	1020								A																1020
	1	FY 97	MC	141	0	141																								141
	1	FY 98	A	894	0	894															A									894
	1	FY 98	MC	380	0	380																								380
	1	FY 99	A	3316	0	3316													X											3316
	1	FY 99	MC	741	0	741																								741
Command Launch Unit																														
	1	FY 96	A	108	0	108													10	10	10	10	10	10	10	11	11	11	5	
	1	FY 97	A	206	0	206								A																206
	1	FY 97	MC	48	0	48																								48
	1	FY 98	A	368	0	368															A									368
	1	FY 98	MC	140	0	140																								140
	1	FY 99	A	325	0	325													X											325
	1	FY 99	MC	153	0	153																								153

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
24	Joint Venture TI/MM*				
24	All Up Round				
1	Joint Venture TI/MM (LRIP)	80	110	140	
1	Joint Venture TI/MM (FRP)	300	300	720	
	Command Launch Unit				
1	Joint Venture TI/MM (LRIP)	6	6	15	
1	Joint Venture TI/MM (FRP)	20	35	90	

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	ADMIN LEAD TIME After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
	INITIAL		6	8	16	24	
	REORDER		7	5	19	24	
	INITIAL						
	REORDER						
	INITIAL						
	REORDER						
	INITIAL						
	REORDER						
	INITIAL						
	REORDER						

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99 / Calendar Year 99												Fiscal Year 00 / Calendar Year 00										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
All Up Round																													
	1	FY 96	A	1010	930	80	80																						
	1	FY 97	A	1020	0	1020		97	102	102	102	102	86	86	86	86	86	85	X										
	1	FY 97	MC	141	0	141		14	14	14	14	14	12	12	12	12	12	11											
	1	FY 98	A	894	0	894													75	75	75	75	75	75	75	75	75	75	69	
	1	FY 98	MC	380	0	380													32	32	32	32	32	30	32	32	32	32	32	30	
	1	FY 99	A	3316	0	3316			A																					3316
	1	FY 99	MC	741	0	741																								741
Command Launch Unit																													
	1	FY 96	A	108	108		X																						
	1	FY 97	A	206	0	206	3	4	12	12	16	21	23	23	23	23	23	23	X										
	1	FY 97	MC	48	0	48	4	4	4	4	4	4	4	4	4	4	4	4											
	1	FY 98	A	368	0	368													30	30	30	30	31	31	31	31	31	31	31	
	1	FY 98	MC	140	0	140													12	12	12	12	12	12	11	11	11	11	12	12	
	1	FY 99	A	325	0	325			A																					325
	1	FY 99	MC	153	0	153																								153

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

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +	MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
1	Joint Venture TI/MM*						INITIAL						
							REORDER						
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 01 / Calendar Year 01												Fiscal Year 02 / Calendar Year 02										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
All Up Round																													
	1	FY 96	A	1010	1010																									
	1	FY 97	A	1020	1020																									
	1	FY 97	MC	141	141																									
	1	FY 98	A	894	894																									
	1	FY 98	MC	380	380																									
	1	FY 99	A	3316	0	3316	277	277	277	277	277	277	276	276	276	276	275	275												
	1	FY 99	MC	741	0	741	61	61	61	62	62	62	62	62	62	62	62	62												
Command Launch Unit																													
	1	FY 96	A	108	108																									
	1	FY 97	A	206	206																									
	1	FY 97	MC	48	48																									
	1	FY 98	A	368	368																									
	1	FY 98	MC	140	140																									
	1	FY 99	A	325	0	325	27	27	27	27	27	27	27	27	27	27	27	28												
	1	FY 99	MC	153	0	153	13	13	13	13	13	13	13	13	13	12	12	12												

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

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +	MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
1	Joint Venture TI/MM*						INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					

Exhibit P-43, Simulator and Training Device Justification

Date: February 1998

Appropriation / Budget Activity/Serial No.	P-1 Item Nomenclature	Other Related Program Elements:	IOC Date:
MISSILE PROCUREMENT / 2 / Other Missiles	JAVELIN (AAWS-M) SYSTEM SUMMARY (CC0007)		

Training Device by Type	Site	Delivery Date	Ready for Training Date	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
FTT-SS	Orlando,FL	Oct-00	Nov-00	54/$7062	129/$13490	75/$7843	144/$15178	405/$32805	365/$29389	300/$24150	135/$10955
FTT-IS	Orlando,FL	Oct-00	Nov-00	23/$943	13/$318	16/$391	33/$808	57/$1083	60/$1112	146/$2701	175/$3397
BST	Orlando,FL	Oct-00	Nov-00	16/$2136	15/$1950	13/$1684	19/$2479	25/$2625	25/$2615	83/$8674	61/$6398
MSR	Ft Benning,GA	Oct-00	Nov-00	126/$252	174/$425	80/$120	333/$623	625/$1041	653/$1033	605/$1135	169/$284

1. Field Tactical Trainer - Student Station - This item is used to teach force-on-force tactics and practice tasks to prepare for the US Army Training Evaluation Program and US Marine Corps Readiness Evaluation System.
2. Field Tactical Trainer - Instructor Station - This item is used in a traditional outdoor range environment at the institution and unit level to refine the basic individual skills required to operate the JAVELIN and for qualification training.
3. Basic Skills Trainer - This item is used for development and retention of tactical and technical gunnery skills. Training is conducted in both the institution and unit level.
4. Missile Simulation Round - This item is a three-dimensional full-size replica, nonoperational mock-up of the JAVELIN tactical round. It is capable of attachment to a tactical command launch unit. It will be used to practice handling and assembly/disassembly procedures with the command launch unit. Additionally, it will be used in field handling and mobilization tactical deployment exercises.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

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

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost												0.0
Less PY Adv Proc	18.3				9.1	25.6						53.0
Plus CY Adv Proc	18.3			34.7								53.0
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: These advance procurement funds will provide economic order quantities for year two and year three of the Javelin three-year multiyear procurement. 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 Ja is hardened against countermeasures and does not require extensive training for effective employment.

Advance Procurement will buy parts and materials in support of the All Up Round, Command Launch Unit (CLU), the Basic Skills Trainer, Field Tactical Trainer (FTT)-Instructor Station, and the FTT-Student Station. The leadtime for these items is 12-18 months.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

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

P-1 Item Nomenclature: PATRIOT MODS (C50700)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	353.4	25.7	6.8	23.3	7.8	15.3	26.4	29.3	19.2	15.4	180.9	703.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	353.4	25.7	6.8	23.3	7.8	15.3	26.4	29.3	19.2	15.4	180.9	703.5
Initial Spares	34.9	6.2	3.4	5.2	2.7	4.9	3.7	2.7	0.8		25.3	89.8
Total Proc Cost	388.3	31.9	10.2	28.5	10.5	20.2	30.1	32.0	20.0	15.4	206.2	793.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The PATRIOT Weapon System Growth Program is in response to a Report of the Defense Science Board Task Force on PATRIOT Vulnerability (l978) (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 above funding is required to support the planned system Growth Program P3I (Pre-planned Product Improvements), anticipated Materiel Changes which will add the following hardware enhancements/improvements to the PATRIOT Weapon System. Modification installation costs are included in the cost of the modification kits.

Exhibit P-40M Budget Item Justification Sheet

Date: February 1998

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

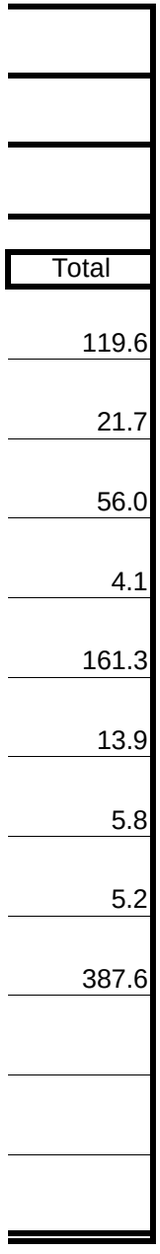
P-1 Item Nomenclature: PATRIOT MODS (C50700)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

Description		Fiscal Years								
OSIP NO.	Classification	FY96 & PRI	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC
RLCEU										
1-92-03-1233		0.0	0.0	2.9	8.8	12.1	14.6	14.7	11.6	54.9
Block VII										
1-88-03-1224		10.2	11.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Weapon Control Computer (WCC) Upgrade										
1-88-03-1227		56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CDI Phase I										
1-92-03-1235		3.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Block VIII (RAM Mods)										
1-89-03-1230		0.0	0.0	4.5	6.5	7.0	9.0	4.5	3.8	126.0
Integrated Diagnostic Support System										
1-97-03-1244		0.0	6.1	0.0	0.0	4.7	3.1	0.0	0.0	0.0
Gem Plus/Minus										
1-97-03-1245		0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RLCEU (LINK 16/JTIDS)										
1-97-03-1246		0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0	0.0
Totals		70.0	23.3	7.8	15.3	26.4	29.3	19.2	15.4	180.9


Total
119.6
21.7
56.0
4.1
161.3
13.9
5.8
5.2
387.6

INDIVIDUAL MODIFICATION Date February 1998

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 Band 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 System (ECS). This project is required to meet PAC-3 requirements for increased battlespace, lethality and rate of fire; additionally Operational Requirement Document (ORD) requirements for interoperability and communications are satisfied by this effort.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Preliminary Design Review	2QFY96	3QFY96
Critical Design Review (CDR)	4QFY96	4QFY96
Contractor Test and Evaluation (CTE)	3QFY98	
Development Test and Evaluation (DTE)	4QFY98	
Initial Operational Test and Evaluation (IOTE)	2QFY99	

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs														8		4	4	7	2	6	3
Outputs															4	4	4	4	4	5	3

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs			4	2			5				5						16	66
Outputs	3	3		4	2			3	2			3	2				16	66

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

Contract Dates: FY 1997 FY 1998 2Q98 FY 1999 2Q99

Delivery Date: FY 1997 FY 1998 4Q99 FY 199 99 4Q00

INDIVIDUAL MODIFICATION																Date		February 1998	
MODIFICATION TITLE (Cont):	RLCEU 1-92-03-1233																		
FINANCIAL PLAN: ($ in Millions)																			
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity					8	2.6	17	8.0	9	11.0	6	13.3	5	13.4	5	10.5	16	49.9	66	108.7
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits					8	0.3													8	0.3
FY 1999 Eqpt -- Kits							17	0.8											17	0.8
FY 2000 Eqpt -- kits									9	1.1									9	1.1
FY 2001 Eqpt -- kits											6	1.3							6	1.3
FY 2002 Eqpt -- kits													5	1.3					5	1.3
FY 2003 Eqpt -- kits															5	1.1			5	1.1
TC Equip-Kits																	16	5.0	16	5.0
Total Installment					8	0.3	17	0.8	9	1.1	6	1.3	5	1.3	5	1.1	16	5.0	66	10.9
Total Procurement Cos						2.9		8.8		12.1		14.6		14.7		11.6		54.9		119.6

INDIVIDUAL MODIFICATION Date February 1998

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

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

DESCRIPTION / JUSTIFICATION:

This modification provides corrections to problems in the field which have been identified and incorporated into ECPs. Corrections included in this Materiel Change involve improvements to the Radar, Engagement Control Station (ECS), Information and Coordination Central (ICC), Launching Station (LS), Battalion Maintenance Equipment/Group (BME/BMG), Communications Relay Group (CRG) and ISE/PFASC Shop Sets. The purpose of this MC 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 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	197	28	28	17	17	17	18	10													
Outputs	169	28	28	28	17	17	17	18	10												

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		332
Outputs																		332

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

Contract Dates:	FY 1997	Dec 96	FY 1998	Dec 97	FY 1999
Delivery Date:	FY 1997	Jun 97	FY 1998	Jun 98	FY 1999

INDIVIDUAL MODIFICATION																		Date	February 1998	
MODIFICATION TITLE (Cont):	Block VII 1-88-03-1224																			
FINANCIAL PLAN: ($ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	253	6.6	69	10.8	10	0.3													332	17.7
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	253	3.6																	253	3.6
FY 1997 Eqpt -- Kits			69	0.3															69	0.3
FY 1998 Eqpt -- Kits					10	0.1													10	0.1
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	253	3.6	69	0.3	10	0.1													332	4.0
Total Procurement Cos		10.2		11.1		0.4														21.7

INDIVIDUAL MODIFICATION Date February 1998

MODIFICATION TITLE: Weapon Control Computer (WCC) Upgrade 1-88-03-1227

MODELS OF SYSTEMS AFFECTED: ECS, ICC

DESCRIPTION / JUSTIFICATION:

This task's objective is to increase (by four times) the speed and memory size of the current Weapon Control Computer (WCC) through replacement with a Very High Speed Integrated Circuit (VHSIC) WCC. The current WCC in the Engagement Control Station (ECS) and Information and Coordination Central (ICC) will be replaced by the VHSIC WCC. Peripheral devices which will permit the full utilization c expanded WCC will be implemented by the replacement of the current Recovery Storage Unit (RSU) and the Mass Storage Unit (MSU) with an optical disk. This MC requires WCC software enhancements to be blocked with others in a Post Deployment Build 4 (PDB-4). The modification will increase central processing speed throughout and available memory. Current RAM hardware usage is at 95% eliminating future growth. VHSIC technology and expanded memory will accommodate future throughput and growth.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Preliminary Design Review	4QFY90	4QFY90
Critical Design Review (CDR)	2QFY91	2QFY90
Contractor Test and Evaluation (CTE)	1QFY92	1QFY92
Development Test and Evaluation (DTE)	2QFY92	3QFY92

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	110																				
Outputs	110																				

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		110
Outputs																		110

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

Contract Dates:	FY 1997	FY 1998	FY 1999
Delivery Date:	FY 1997	FY 1998	FY 1999

INDIVIDUAL MODIFICATION																		Date	February 1998	
MODIFICATION TITLE (Cont):	Weapon Control Computer (WCC) Upgrade 1-88-03-1227																			
FINANCIAL PLAN: ($ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		27.2																		27.2
PROCUREMENT																				
Kit Quantity	110	49.9																	110	49.9
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	110	6.1																	110	6.1
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	110	6.1																	110	6.1
Total Procurement Cos		56.0																		56.0

INDIVIDUAL MODIFICATION Date February 1998

MODIFICATION TITLE: CDI Phase I 1-92-03-1235

MODELS OF SYSTEMS AFFECTED: Radar

DESCRIPTION / JUSTIFICATION:

Provides improvements to the identification process and enhances air defense effectiveness by reducing the potential for fratricide and providing better battlefield management of missile expenditures.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Preliminary Design Review	4QFY90	1QFY91
Critical Design Review (CDR)	3QFY91	4QFY91
Contractor Test and Evaluation (CTE)	2QFY92	3QFY92
Development Test and Evaluation (DTE)	2QFY92	1QFY94

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	15	2	2	2																	
Outputs	13	2	2	2	2																

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		21
Outputs																		21

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

Contract Dates:	FY 1997	Nov 96	FY 1998		FY 1999
Delivery Date:	FY 1997	May 97	FY 1998		FY 1999

INDIVIDUAL MODIFICATION																Date		February 1998	
MODIFICATION TITLE (Cont):	CDI Phase I 1-92-03-1235																		
FINANCIAL PLAN: ($ in Millions)																			
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		14.6																		14.6
PROCUREMENT																				
Kit Quantity	19	3.1	2	0.2															21	3.3
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	19	0.7																	19	0.7
FY 1997 Eqpt -- Kits			2	0.1															2	0.1
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	19	0.7	2	0.1															21	0.8
Total Procurement Cos		3.8		0.3																4.1

INDIVIDUAL MODIFICATION — Date: February 1998

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

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

DESCRIPTION / JUSTIFICATION:

This modification provides corrections to problems in the field which have been identified and incorporated into ECPs. Corrections included in this modification 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 Intermediate Support Elements/Patriot Field Army Suport Center (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 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs								32	32	32	31	53	53	53	52	93	92	92	92	103	103
Outputs									32	32	32	31	53	53	53	52	93	92	92	92	103

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	103	102	57	56	56	56	50	50	50	50	75	75	75	75	75	75	2550	4543
Outputs	103	103	102	57	56	56	56	50	50	50	50	75	75	75	75	75	2625	4543

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

Contract Dates:	FY 1997	FY 1998	Dec 97	FY 1999	Dec 98
Delivery Date:	FY 1997	FY 1998	Jun 98	FY 1999	Jun 99

INDIVIDUAL MODIFICATION — Date: February 1998

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

FINANCIAL PLAN: ($ in Millions)

	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity					127	4.1	211	5.9	369	6.3	411	8.1	225	4.1	200	3.5	3000	113.4	4543	145.4
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits					127	0.4													127	0.4
FY 1999 Eqpt -- Kits							211	0.6											211	0.6
FY 2000 Eqpt -- kits									369	0.7									369	0.7
FY 2001 Eqpt -- kits											411	0.9							411	0.9
FY 2002 Eqpt -- kits													225	0.4					225	0.4
FY 2003 Eqpt -- kits															200	0.3			200	0.3
TC Equip-Kits																	3000	12.6	3000	12.6
Total Installment					127	0.4	211	0.6	369	0.7	411	0.9	225	0.4	200	0.3	3000	12.6	4543	15.9
Total Procurement Cos						4.5		6.5		7.0		9.0		4.5		3.8		126.0		161.3

INDIVIDUAL MODIFICATION Date February 1998

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

MODELS OF SYSTEMS AFFECTED:

DESCRIPTION / JUSTIFICATION:

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

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Major milestones not applicable.

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs						7												7			
Outputs							7												7		

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	5																	19
Outputs		5																19

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

Contract Dates: FY 1997 Feb 97 FY 1998 FY 1999

Delivery Date: FY 1997 Oct 97 FY 1998 FY 1999

INDIVIDUAL MODIFICATION																		Date	February 1998	
MODIFICATION TITLE (Cont):	Integrated Diagnostic Support System 1-97-03-1244																			
FINANCIAL PLAN: ($ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity			7	5.9					7	4.5	5	3.0							19	13.4
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits			7	0.2															7	0.2
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits									7	0.2									7	0.2
FY 2001 Eqpt -- kits											5	0.1							5	0.1
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment			7	0.2					7	0.2	5	0.1							19	0.5
Total Procurement Cos				6.1						4.7		3.1								13.9

INDIVIDUAL MODIFICATION — Date: February 1998

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

MODELS OF SYSTEMS AFFECTED: PAC-2 Missile

DESCRIPTION / JUSTIFICATION:

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

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Major milestones not applicable

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs													15	20	20	20					
Outputs														15	20	20	20				

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		75
Outputs																		75

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

Contract Dates:	FY 1997	Jan 98	FY 1998		FY 1999
Delivery Date:	FY 1997	Jul 99	FY 1998		FY 1999

INDIVIDUAL MODIFICATION																		Date	February 1998	
MODIFICATION TITLE (Cont):	Gem Plus/Minus 1-97-03-1245																			
FINANCIAL PLAN: ($ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity			75	5.3															75	5.3
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits			75	0.5															75	0.5
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment			75	0.5															75	0.5
Total Procurement Cos				5.8																5.8

INDIVIDUAL MODIFICATION — Date: February 1998

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

MODELS OF SYSTEMS AFFECTED: ECS

DESCRIPTION / JUSTIFICATION:

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

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Major milestones not applicable

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																		3	4	4	4
Outputs																			3	4	4

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	5	5	5	5														35
Outputs	4	5	5	5	5													35

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

Contract Dates:	FY 1997	FY 1998	FY 1999
Delivery Date:	FY 1997	FY 1998	FY 1999

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 4 / Spares and Repair Parts

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	2657.4	34.1	11.5	10.3	11.1	23.7	19.2	25.1	26.2	25.5	41.5	2885.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	11.5	10.3	11.1	23.7	19.2	25.1	26.2	25.5	41.5	194.1
Initial Spares												
Total Proc Cost	0.0	0.0	11.5	10.3	11.1	23.7	19.2	25.1	26.2	25.5	41.5	194.1
Flyaway U/C												
Wpn Sys Proc U/C												

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

Justification: The funds in this account procure depot level reparable (DLR) secondary items from the Supply Management, Army (SMA) activity of the Defense Business Operations Fund. To provide initial support, funds are normally required in the same year that end items are fielded. Initial spares breakout:

System	FY 1996	FY 1997	FY 1998	FY 1999
Javelin				4.7
MLRS Launcher	5.1		1.0	6.9
ATACMS		1.0	1.0	
Patriot Mods	3.4	5.2	2.7	4.9
Avenger Mods	1.0			
ITAS/TOW Mods		2.3	5.4	6.6
MLRS Mods	2.0	1.8	1.0	0.6
Total	11.5	10.3	11.1	23.7

Exhibit P-40, Budget Item Justification Sheet												Date: February 1998
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 5 / Support Equipment and Facilities								P-1 Item Nomenclature: AIR DEFENSE TARGETS (C93000)				
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	357.9	8.2	6.6	6.2	1.0	2.5	2.4	2.5	2.5	2.5	0.0	392.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	357.9	8.2	6.6	6.2	1.0	2.5	2.4	2.5	2.5	2.5	0.0	392.3
Initial Spares	1.3											1.3
Total Proc Cost	359.2	8.2	6.6	6.2	1.0	2.5	2.4	2.5	2.5	2.5	0.0	393.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

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

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

JUSTIFICATION:

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

Exhibit P-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 1998		
Missiles	ID	**FY 96**			**FY 97**			**FY 98**			**FY 99**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
MQM-107													
-Operating Costs		1853			1900			434			406		
-Other Costs		780			732			537			1026		
SubTotal MQM-107		**2633**			**2632**			**971**			**1432**		
Non-Recurring Costs													
Total MQM-107		**2633**			**2632**			**971**			**1432**		
RCMAT													
-Operating Costs		52			50								
-Other Costs		22			20								
SubTotal RCMAT		**74**			**70**								
1/5th SCALE													
-Hardware		176	112	2	618						468	156	3
-Operating Costs		60			118						165		
-Other Costs		99			282						127		
SUBTOTAL		**335**			**1018**						**760**		
BATS													
-Hardware		874	157	6	425								
-Operating Costs		109			55						34		
-Other Costs		414			184						14		
SUBTOTAL		**1397**			**664**						**48**		
TOWED TARGETS													
-Operating Costs		77			54						57		
-Other Costs		32			20						23		
SUBTOTAL		**109**			**74**						**80**		
ANCILLARY/AUGMENTATION													
-Hardware		909	500	2	881	440	2				68	34	2
-Operating Costs		532			372						99		
-Other Costs		606			479						47		
SUBTOTAL		**2047**			**1732**						**214**		
BALLISTIC MISSILE TARGET													
-Hardware													
-Operating Costs													
-Other Costs													
SUBTOTAL													

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 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
SubTotal Support Cost													
Gross P-1 End Cost		6595			6190			971			2534		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		6595			6190			971			2534		
PLUS P-1 CY Adv. Proc.													
Other Non P-1 Costs													
Initial Spares													
MODS													
TOTAL		**6595**			**6190**			**971**			**2534**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 5 / Support Equipment and Facilities

Weapon System Type:

P-1 Line Item Nomenclature: AIR DEFENSE TARGETS (C93000)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1/5th SCALE										
FY99										
-Hardware	Continental RPV Barstow, CA	Comp FFP	AMCOM	Oct-98	Dec-98	156	3	Yes		N/A
ANCILLARY/AUGMENTATION										
FY99										
-SCORING Ground Stations	Cartwright Electronics, Inc. Fullerton, CA	Only Source FFP	AMCOM	Nov-98	Jul-99	2	34	No		N/A

REMARKS:

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: AIR DEFENSE TARGETS (C93000)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99 / Calendar Year 99												Fiscal Year 00 / Calendar Year 00										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1/5TH SCALE																														
	1	99	A	156					20	20	20	15	15	15	15	12	12	12													
ANCILLARY/AUGMENTTION																														
-SCORING Ground Stations	2	99	A	2												1	1													

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Continental RPV, Barstow, CA	3	7	30	3
2	Cartwright Electronics, Fullerton, CA	100	150	200	5

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		1	1	1	2
	REORDER		1	1	1	2
2	INITIAL		9	5	5	10
	REORDER		9	5	5	10
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

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

P-1 Item Nomenclature: HELLFIRE SYS SUMMARY (C70000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty	44990	1600	1102	2856	1100	2000	2200	2200	2200	1797		62045
Gross Cost	1832.0	127.5	235.9	356.4	242.3	360.6	301.9	294.1	230.1	190.3	50.0	4221.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1832.0	127.5	235.9	356.4	242.3	360.6	301.9	294.1	230.1	190.3	50.0	4221.1
Initial Spares	7.5											7.5
Total Proc Cost	1839.5	127.5	235.9	356.4	242.3	360.6	301.9	294.1	230.1	190.3	50.0	4228.6
Flyaway U/C	0.040	0.080	0.214	0.125	0.219	0.179	0.135	0.132	0.103	0.104		0.068
Wpn Sys Proc U/C	0.040	0.080	.214	.125	.220	.181	.137	.134	.105	.106		.068

Description: HELLFIRE is an air-to-ground missile system designed to defeat individual targets and minimize exposure of the delivery vehicle to enemy fire. Laser HELLFIRE uses semi-active laser terminal guidance; Longbow HELLFIRE uses a radio frequency guidance section and is a fire-and-forget missile. HELLFIRE is the primary anti-tank armament of the AH-64 Apache, OH-58D Kiowa Warrior, and Special Operations helicopters and will be used by the RAH-66 Comanche, the Army's next generation helicopter. Production buys are scheduled to support training, testing, fielding, and deployment of these aircraft. Beginning in FY 90, the missile was reconfigured with an interim warhead to improve lethality against near term threat reactive armor. Development of the HELLFIRE II was completed in 3rd Qtr, FY 93. The first full production contract was awarded on 26 May 93. Longbow HELLFIRE began production in FY 95 with Long Lead Items and Initial Production Facilitization.

The Army requests congressional approval for a multi-year procurement contract, to be awarded in November 1998. The multi-year contract will procure 10,397 Longbow Hellfire missiles during the five year period, FY99-03.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

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

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete
Proc Qty	44990	1600	750	1800							
Gross Cost	1802.8	86.3	50.7	107.1	9.5	14.3	2.2				
Less PY Adv Proc											
Plus CY Adv Proc											
Net Proc (P-1)	1802.8	86.3	50.7	107.1	9.5	14.3	2.2				
Initial Spares	5.7										
Total Proc Cost	1808.5	86.3	50.7	107.1	9.5	14.3	2.2				
Flyaway U/C	0.040	0.054	0.068	0.060							
Wpn Sys Proc U/C	0.040	0.054	.068	.060							

Description: HELLFIRE is an air-to-ground missile system designed to defeat individual targets and minimize exposure of the delivery vehicle to enemy fire. La HELLFIRE uses semi-active laser terminal guidance and is the primary anti-tank armament of the AH-64 Apache, OH-58D Kiowa Warrior, and Special Operations helicopters and will be used by the RAH-66 Comanche, the Army's next generation Helicopter. Beginning in FY 90, the missile was reconfigured wit interim warhead to improve lethality against near term threat reactive armor. Development of HELLFIRE II was completed in 3rd Qtr, FY 93. The first full produ contract was awarded on 26 May 93. HELLFIRE II includes hardening of the laser seeker against countermeasures, further warhead improvements for the long replacement of the mechanical fuse with an electronic fuse, and restoration of the original length and weight.

Justification: HELLFIRE II will defeat all known electro-optical countermeasures and advanced reactive armors. Using its semi-active laser homing guidance sy laser HELLFIRE is perfectly suited for precision strikes at a variety of individual hardpoint targets, while minimizing exposure of the aircraft and supporting troop

Total Prog
49140
2072.9
2072.9
5.7
2078.6
0.042
.042

vidual targets and minimize exposure of the delivery vehicle to enemy fire. Laser
ırmament of the AH-64 Apache, OH-58D Kiowa Warrior, and Special
xt generation Helicopter. Beginning in FY 90, the missile was reconfigured with an
elopment of HELLFIRE II was completed in 3rd Qtr, FY 93. The first full production
seeker against countermeasures, further warhead improvements for the long term,
original length and weight.

ınd advanced reactive armors. Using its semi-active laser homing guidance system,
ardpoint targets, while minimizing exposure of the aircraft and supporting troops.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles			P-1 Line Item Nomenclature: LASER HELLFIRE MSL (BASIC/IHW/HFII) (C70100)			Weapon System Type:			Date: February 1998		
Missiles	ID	**FY 96**			**FY 97**			**FY 98**			**FY 99**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Flyaway Costs													
Hardware Costs - Recurring													
All-Up-Rounds		34133	750	46	83404	1800	46						
Containers		4212	3454	1									
Gov Furn Eq (GFE) Explosives		441			1173								
Engineering Services		1784			2134			1200			2742		
Engineering Change Orders		782			1472								
Fielding		128			161			239			311		
Acceptance Testing		2350			4058			2250			3664		
SUBTOTAL		**43830**			**92402**			**3689**			**6717**		
Engineering Support													
Project Mgt Admin		2895			5069			3198			2956		
Production Engineering Support		4015			6661			2659			4658		
SUBTOTAL		**6910**			**11730**			**5857**			**7614**		
NON-Recurring													
Depot Tooling/Test Equipment					2981								
Initial Production Facilitization (IPF)													
Rate Tooling/ Test Equipment													
SUBTOTAL					**2981**								
TOTAL FLYAWAY		**50740**			**107113**			**9546**			**14331**		
Peculiar Support Equipment													
Environmental Protection Covers													
SUBTOTAL													
Launchers													
Gross P-1 End Cost		**50740**			**107113**			**9546**			**14331**		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		**50740**			**107113**			**9546**			**14331**		
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares													
Mods													
TOTAL		**50740**			**107113**			**9546**			**14331**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

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

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY 96	HELLFIRE Systems Limited Liability Company (HSLLC) Orlando, Fl	FFP	AMCOM	Jan-96	Nov-98	750	46	Yes		
FY97	HELLFIRE Systems Limited Liability Company (HSLLC) Orlando, Fl	FFP	AMCOM	Jan-97	May-99	1800	46	Yes		

REMARKS:

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY96 OCT	FY96 NOV	FY96 DEC	FY96 JAN	FY96 FEB	FY96 MAR	FY96 APR	FY96 MAY	FY96 JUN	FY96 JUL	FY96 AUG	FY96 SEP	FY97 OCT	FY97 NOV	FY97 DEC	FY97 JAN	FY97 FEB	FY97 MAR	FY97 APR	FY97 MAY	FY97 JUN	FY97 JUL	FY97 AUG	FY97 SEP	LATER
							Fiscal Year 96												Fiscal Year 97												
							Calendar Year 96												Calendar Year 97												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
114F/Rockwell/FY91	1	91	A	3002	3002																									
114F/Rockwell/FY91	1	91	N	898	898																									
114F/Rockwell/FY91	1	91	SDAF	600	600																									
114F/Rockwell/FY91	1	91	MA	408	408																									
114F/Rockwell/FY91	1	91	A	2174	2174																									
114K/Martin/FY91	2	91	A	509	347	162	64	46	52																					
114K/Martin/FY91	2	91	N	300	151	149	67	29	53																					
114F/Martin/FY92	2	92	A	95	63	32	10	11	11																					
114F/Rockwell/FY92	1	92	SDAF	1200	1200																									
114F/Rockwell/FY93	1	93	MA	684	684																									
114K/Martin/FY93	2	93	A	2407	1034	1373	182	143	235	190	268	1		1												118			74	161
114K/Martin/FY93	2	93	N	1000	444	556	103	87	121	207	36	2																		
114K/Martin/FY94	2	94	A	1417	0	1417					82															77	196		2	1060
114K/Martin/FY94	2	94	N	1873	0	1873																				156	155		273	1289
114K/Martin/FY95	2	95	A	1600	0	1600																								1600
114K/HSLLC/FY96	2	96	A	750	0	750				A																				750
114K/HSLLC/FY96	2	96	MA	1563	0	1563																								1563
114K/HSLLC/FY97	2	97	A	1800	0	1800																A								1800

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

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

REMARKS

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

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY98 OCT	FY98 NOV	FY98 DEC	CY98 JAN	CY98 FEB	CY98 MAR	CY98 APR	CY98 MAY	CY98 JUN	CY98 JUL	CY98 AUG	CY98 SEP	FY99 OCT	FY99 NOV	FY99 DEC	CY99 JAN	CY99 FEB	CY99 MAR	CY99 APR	CY99 MAY	CY99 JUN	CY99 JUL	CY99 AUG	CY99 SEP	LATER
114F/Rockwell/FY91	1	91	A	3002	3002																									
114F/Rockwell/FY91	1	91	N	898	898																									
114F/Rockwell/FY91	1	91	SDAF	600	600																									
114F/Rockwell/FY91	1	91	MA	408	408																									
114F/Rockwell/FY91	1	91	A	2174	2174																									
114K/Martin/FY91	2	91	A	509	509																									
114K/Martin/FY91	2	91	N	300	300																									
114F/Martin/FY92	2	92	A	95	95																									
114F/Rockwell/FY92	1	92	SDAF	1200	1200																									
114F/Rockwell/FY93	1	93	MA	684	684																									
114K/Martin/FY93	2	93	A	2407	2246	161									80	81														
114K/Martin/FY93	2	93	N	1000	1000																									
114K/Martin/FY94	2	94	A	1417	357	1060	1		174	69	276	99		241									200							
114K/Martin/FY94	2	94	N	1873	584	1289	1		248	412	37	187	266	138																
114K/Martin/FY95	2	95	A	1600	0	1600									120	300	388	392	400											
114K/HSLLC/FY96	2	96	A	750	0	750														375	375									
114K/HSLLC/FY96	2	96	MA	1563	0	1563			200													350	86	327	400	200				
114K/HSLLC/FY97	2	97	A	1800	0	1800																				200	300	300	300	350	350

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

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

REMARKS

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

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00 / Calendar Year 00												Fiscal Year 01 / Calendar Year 01										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
114F/Rockwell/FY91	1	91	A	3002	3002																									
114F/Rockwell/FY91	1	91	N	898	898																									
114F/Rockwell/FY91	1	91	SDAF	600	600																									
114F/Rockwell/FY91	1	91	MA	408	408																									
114F/Rockwell/FY91	1	91	A	2174	2174																									
114K/Martin/FY91	2	91	A	509	509																									
114K/Martin/FY91	2	91	N	300	300																									
114F/Martin/FY92	2	92	A	95	95																									
114F/Rockwell/FY92	1	92	SDAF	1200	1200																									
114F/Rockwell/FY93	1	93	MA	684	684																									
114K/Martin/FY93	2	93	A	2407	2407																									
114K/Martin/FY93	2	93	N	1000	1000																									
114K/Martin/FY94	2	94	A	1417	1417																									
114K/Martin/FY94	2	94	N	1873	1873																									
114K/Martin/FY95	2	95	A	1600	1600																									
114K/HSLLC/FY96	2	96	A	750	750																									
114K/HSLLC/FY96	2	96	MA	1563	1563																									
114K/HSLLC/FY97	2	97	A	1800	1450	350	350																							

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

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

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

REMARKS

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

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

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

P-1 Item Nomenclature: LONGBOW HELLFIRE (C70300)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete
Proc Qty			352	1056	1100	2000	2200	2200	2200	1797	
Gross Cost		41.2	185.2	249.3	232.7	302.0	313.0	306.2	240.2	199.1	50.0
Less PY Adv Proc							13.3	12.1	10.1	8.8	
Plus CY Adv Proc						44.3					
Net Proc (P-1)		41.2	185.2	249.3	232.7	346.3	299.7	294.1	230.1	190.3	50.0
Initial Spares											
Total Proc Cost		41.2	185.2	249.3	232.7	346.3	299.7	294.1	230.1	190.3	50.0
Flyaway U/C			0.526	0.236	0.210	0.171	0.134	0.132	0.103	0.104	
Wpn Sys Proc U/C			.526	.236	.211	.173	.136	.134	.105	.106	

Description: Longbow HELLFIRE is the air-to-ground missile system component of the Longbow system. It is designed to defeat individual targets and substantially enhance survivability of the AH-64D Longbow Apache Helicopter. Longbow HELLFIRE uses a radio frequency guidance section. Further, the Long HELLFIRE missile provides a lock-on-before-launch (LOBL) or lock-on-after-launch (LOAL) capability depending on target range and movement parameters. Lo does not change the AH-64 mission or role, but provides for increased mission effectiveness by enhancing lethality and survivability. The production buys supp training, fielding and deployment of the AH-64D Longbow Helicopter. All three Longbow program elements (Fire Control Radar, D Model Apache Helicopter and Longbow HELLFIRE Missile) were developed simultaneously and are scheduled to be fielded as a total system. Long Lead Items procured in FY 95 provided fo procurement of materials for the first Low Rate Initial Production year (FY 96). This was required to meet system fielding requirements. Laser HELLFIRE and L HELLFIRE are complementary. Both are required on the modern battlefield.

Justification: The Longbow HELLFIRE will provide the capability to conduct battle both day and night in adverse weather and with battlefield obscurants presen its radio frequency guidance section, the Longbow HELLFIRE complements the semi-active Laser HELLFIRE II with a true fire and forget capability, maximizing ability of the Longbow Apache helicopter to operate in adverse weather, and dramatically increases the aircraft's survivability.

The Army requests congressional approval for a multi-year procurement contract to be awarded in November 1998. The multi-year contract will procure 10,39 Longbow HELLFIRE missiles during the five year period, FY99-03. Advance Procurement of $44.3M in FY99 required for Economic Order Quantity (EOQ) mat The multi-year contract will result in a cost avoidance of $172.2M over annual procurement. The exhibits have been corrected to show the split between FY99 procurement costs and Advance Procurement. Request the multi-year be approved, authorized, and appropriated using the funding split shown.

Total Prog
12905
2118.9
44.3
44.3
2118.9
2118.9
0.163
.164

of the Longbow system. It is designed to defeat individual targets and
ongbow HELLFIRE uses a radio frequency guidance section. Further, the Longbow
h (LOAL) capability depending on target range and movement parameters. Longbow
ectiveness by enhancing lethality and survivability. The production buys support
ngbow program elements (Fire Control Radar, D Model Apache Helicopter and
o be fielded as a total system. Long Lead Items procured in FY 95 provided for the
s was required to meet system fielding requirements. Laser HELLFIRE and Longbow

both day and night in adverse weather and with battlefield obscurants present. With
emi-active Laser HELLFIRE II with a true fire and forget capability, maximizing the
atically increases the aircraft's survivability.
t to be awarded in November 1998. The multi-year contract will procure 10,397
curement of $44.3M in FY99 required for Economic Order Quantity (EOQ) materials.
curement. The exhibits have been corrected to show the split between FY99
ed, authorized, and appropriated using the funding split shown.

Exhibit P-5, Weapon Missiles Cost Analysis	Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Line Item Nomenclature: LONGBOW HELLFIRE (C70300)	Weapon System Type:	Date: February 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Flyaway Costs													
Hardware Costs - Recurring													
All-Up-Rounds		133194	352	378	210630	1056	199	198100	1100	180	270979	2000	135
Containers								1167	1100	1	2211	2000	1
Gov Furn Eq (GFE) Explosives		148			609			627			1295		
Engineering Services		4330			4194			2953			5301		
Engineering Change Orders		2557			2681			2247			2720		
Fielding					776			1100			4856		
Acceptance Testing		2369			2669			2250			3640		
SUBTOTAL		**142598**			**221559**			**208444**			**291002**		
Engineering Support													
Project Mgt Admin		3415			3872			3663			3664		
Production Engineering Support		6094			5455			4398			3772		
SUBTOTAL		**9509**			**9327**			**8061**			**7436**		
Non-Recurring													
Disposal of Tooling/ Test Equipment													
Initial Production Facilitization (IPF)		12309											
Cost Reduction Program		20798			2319								
Rate Tooling/Test Equipment					16081			14900					
SUBTOTAL		**33107**			**18400**			**14900**					
TOTAL		**185214**			**249286**			**231405**			**298438**		
Peculiar Support Equipment													
Environmental Protection Covers								1320			3556		
SUBTOTAL								**1320**			**3556**		
Gross P-1 End Cost		**185214**			**249286**			**232725**			**301994**		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		**185214**			**249286**			**232725**			**301994**		
Plus: P-1 CY Adv Proc											44300		
Other Non P-1 Costs													
Initial Spares													
Mods													
TOTAL		**185214**			**249286**			**232725**			**346294**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

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

Weapon System Type:

P-1 Line Item Nomenclature: LONGBOW HELLFIRE (C70300)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY 96	Longbow Limited Liability Company (LLLC) Orlando, Fl	FFP	AMCOM	Jan-96	May-97	352	378	Yes		*
FY 97	Longbow Limited Liability Company (LLLC) Orlando, Fl	FFP	AMCOM	Jan-97	Jul-98	1056	199	Yes		**
FY 98	Longbow Limited Liability Company (LLLC) Orlando, Fl	FFP	AMCOM	Dec-97	Sep-99	1100	180	Yes		**
FY 99	Longbow Limited Liability Company (LLLC) Orlando, Fl	***FFP	AMCOM	Dec-98	Sep-00	2000	158	Yes		**

REMARKS:

*System and development specifications are under government control, but the technical data package is not.

**In the Longbow HELLFIRE's transition to production, performance based specifications will be used in all production contracts.

***Planned five year multiyear contract.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: LONGBOW HELLFIRE (C70300)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY96 OCT	FY96 NOV	FY96 DEC	CY96 JAN	CY96 FEB	CY96 MAR	CY96 APR	CY96 MAY	CY96 JUN	CY96 JUL	CY96 AUG	CY96 SEP	FY97 OCT	FY97 NOV	FY97 DEC	CY97 JAN	CY97 FEB	CY97 MAR	CY97 APR	CY97 MAY	CY97 JUN	CY97 JUL	CY97 AUG	CY97 SEP	LATER
114L/LLLC/FY96	3	96	A	352		352				A																		21	15	20	296
114L/LLLC/FY97	3	97	A	1056		1056																A									1056
114L/LLLC/FY98	3	98	A	1100		1100																									1100
114L/LLLC/FY99	3	99	A	2000		2000																									2000
114L/LLLC/FY00	3	00	A	2200		2200																									2200
114L/LLLC/FY01	3	01	A	2200		2200																									2200
114L/LLLC/FY02	3	02	A	2200		2200																									2200
114L/LLLC/FY03	3	03	A	1797		1797																									1797

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

REMARKS

*FY 95 to FY 00 facilitizing to achieve a production rate of 184 missiles on a 2-8-5 shift. No plans to procure additional tooling/ test equipment to build a full rate on 1-8-5 shift.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: LONGBOW HELLFIRE (C70300)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98 / Calendar Year 98												Fiscal Year 99 / Calendar Year 99										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
114L/LLLC/FY96	3	96	A	352	56	296	20	25	26	32	36	38	39	40	40															
114L/LLLC/FY97	3	97	A	1056		1056										40	40	40	40	40	46	55	60	70	75	80	85	90	95	100	100
114L/LLLC/FY98	3	98	A	1100		1100			A																					1100
114L/LLLC/FY99	3	99	A	2000		2000															A									2000
114L/LLLC/FY00	3	00	A	2200		2200																								2200
114L/LLLC/FY01	3	01	A	2200		2200																								2200
114L/LLLC/FY02	3	02	A	2200		2200																								2200
114L/LLLC/FY03	3	03	A	1797		1797																								1797

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

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

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

REMARKS

*FY 95 to FY 00 facilitizing to achieve a production rate of 184 missiles on a 2-8-5 shift. No plans to procure additional tooling/ test equipment to build a full rate on 1-8-5 shift.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: LONGBOW HELLFIRE (C70300)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00 / Calendar Year 00												Fiscal Year 01 / Calendar Year 01										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
114L/LLLC/FY96	3	96	A	352	352																									
114L/LLLC/FY97	3	97	A	1056	956	100	100																							
114L/LLLC/FY98	3	98	A	1100		1100		100	100	100	100	105	110	115	120	125	125													
114L/LLLC/FY99	3	99	A	2000		2000												130	140	150	160	170	175	175	175	180	180	182	183		
114L/LLLC/FY00	3	00	A	2200		2200																							183	2017
114L/LLLC/FY01	3	01	A	2200		2200																								2200
114L/LLLC/F702	3	02	A	2200		2200																								2200
114L/LLLC/FY03	3	03	A	1797		1797																								1797

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

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

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

REMARKS

*FY 95 to FY 00 facilitizing to achieve a production rate of 184 missiles on a 2-8-5 shift. No plans to procure additional tooling/ test equipment to build a full rate on 1-8-5 shift.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: LONGBOW HELLFIRE (C70300)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02 / Calendar Year 02												Fiscal Year 03 / Calendar Year 03										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
114L/LLLC/FY96	3	96	A	352	352																									
114L/LLLC/FY97	3	97	A	1056	1056																									
114L/LLLC/FY98	3	98	A	1100	1100																									
114L/LLLC/FY99	3	99	A	2000	2000																									
114L/LLLC/FY00	3	00	A	2200	183	2017	183	183	183	183	183	183	183	184	184	184	184													
114L/LLLC/FY01	3	01	A	2200		2200												183	183	183	183	183	183	183	184	184	184	184		
114L/LLLC/F702	3	02	A	2200		2200																							183	2017
114L/LLLC/FY03	3	03	A	1797		1797																								1797

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

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

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

REMARKS

*FY 95 to FY 00 facilitizing to achieve a production rate of 184 missiles on a 2-8-5 shift. No plans to procure additional tooling/ test equipment to build a full rate on 1-8-5 shift.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: LONGBOW HELLFIRE (C70300)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 04 / Calendar Year 04												Fiscal Year 05 / Calendar Year 05										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
114L/LLLC/FY96	3	96	A	352	352																									
114L/LLLC/FY97	3	97	A	1056	1056																									
114L/LLLC/FY98	3	98	A	1100	1100																									
114L/LLLC/FY99	3	99	A	2000	2000																									
114L/LLLC/FY00	3	00	A	2200	2200																									
114L/LLLC/FY01	3	01	A	2200	2200																									
114L/LLLC/F702	3	02	A	2200	183	2200	183	183	183	183	183	183	183	184	184	184	184													
114L/LLLC/FY03	3	03	A	1797		1797												149	149	149	150	150	150	150	150	150	150	150	150	

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

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

REMARKS

*FY 95 to FY 00 facilitizing to achieve a production rate of 184 missiles on a 2-8-5 shift. No plans to procure additional tooling/ test equipment to build a full rate on 1-8-5 shift.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

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

P-1 Item Nomenclature: ENHANCED FIBER OPTIC GUIDED MISSILE (EFO (H03100)

Program Elements for Code B Items: 0603313A/D496

Code: B

Other Related Program Elements: NONE

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty					96	96						192
Gross Cost	0.0	0.0	0.0	0.0	12.9	13.7	0.0	0.0	0.0	0.0	0.0	26.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	12.9	13.7	0.0	0.0	0.0	0.0	0.0	26.7
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	12.9	13.7	0.0	0.0	0.0	0.0	0.0	26.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: EFOGM is the primary "killer" within the OSD approved Rapid Force Projection Initiative (RFPI) ACTD. The EFOGM system is a multi-purpose, precision kill weapon system. EFOGM is a day/night, adverse weather capable system that allows the maneuver commander to extend the battle space beyond line of sight to ranges up to 15 kilometers, thus reducing the exposure of the gunner and allowing targets to be taken out of the battle early. The system consists of a gunner's station, a tactical missile, and a fiber optic data link plus command vehicles. The missile can navigate to the target area automatically, and the gunner can intervene at any time to lock on and engage any detected targets. This gunner in the loop capability enhances the target acquisition process and minimizes fratricide and collateral damage, so important in urban warfare. The gunner views the flight path and target via a seeker on the missile linked to the gunner's video console. The missile incorporates an IR imaging seeker and a variety of advanced targeting functionalities.

JUSTIFICATION: EFOGM will give light forces the ability to engage and defeat threat armored combat vehicles, other high value ground targets, and hovering or moving rotary wing aircraft that may be masked from line of sight direct fire weapon systems. FY99 buys 96 EFOGM missiles and provides for refurbishment of fire units evaluated during RFPI large-scale field experiment.

NOTE: EFOGM, is an RDT&E funded Advanced Concept Technology Demonstration (ACTD). As directed by congressional language, procurement funding buys limited residual end-items which will not be consumed during testing and will be left as "go-to-war" assets. The FY98 DoD Appropriations Act transferred $13.3M from RDT&E into this missile procurement budget line for fabrication of missiles not used in test.

Exhibit P-5, Weapon Missiles Cost Analysis	Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Line Item Nomenclature: ENHANCED FIBER OPTIC GUIDED MISSILE (EFO (H03100)	Weapon System Type:	Date: February 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
EFOGM Missiles								12,942	96	135	13,213	96	138
Fire Unit Refurbishment											503	17	30
TOTAL								12,942			13,716		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

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

Weapon System Type:

P-1 Line Item Nomenclature: ENHANCED FIBER OPTIC GUIDED MISSILE (EFO (H03100)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
EFOGM Missiles										
FY 98	Raytheon ESD, Huntsville, AL	TBD	DSA, AMCOM	Jul-98	Jul-99	96	135	N/A	N/A	Mar-94
FY 99	Raytheon ESD, Huntsville, AL	TBD	DSA, AMCOM	Jan-99	Jan-00	96	138	N/A	N/A	Mar-94

REMARKS: The EFOGM RDT&E CPIF Advanced Technology Demonstration contract was competitively awarded to Raytheon on 16 May 95. Current contract will be modified to add FY 98 procurement funding for 96 missiles; funds will be obligated during July 98.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: ENHANCED FIBER OPTIC GUIDED MISSILE (EFO (H03100)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 98 OCT	NOV	DEC	CY 98 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FY 99 OCT	NOV	DEC	CY 99 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	LATER
EFOGM Missiles																														
	1	FY 98	A	96	0	96										A											6	10	10	70
	1	FY 99	A	96	0	96																A								96

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Raytheon Company, Electronic Systems Div., Huntsville, AL	10	10	80	

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		0	9	13	22
	REORDER		0	3	13	16
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

The minimum production rate is also a 1-8-5 rate. Capabilities of subcontractors are constrained by limited tooling (not time). With additional investment in tooling/facilitization, the maximum production rate could be achieved.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: ENHANCED FIBER OPTIC GUIDED MISSILE (EFO (H03100)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01										LATER
										Calendar Year 00													Calendar Year 01								
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
EFOGM Missiles																													
	1	FY 98	A	96	26	70	10	10	10	10	10	10	10																
	1	FY 99	A	96	0	96				6	10	10	10	10	10	10	10	10											

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Raytheon Company, Electronic Systems Div., Huntsville, AL	10	10	80	

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		0	9	13	22
	REORDER		0	3	13	16
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

The minimum production rate is also a 1-8-5 rate. Capabilities of subcontractors are contstrained by limited tooling (not time). With additional investment in tooling/facilitization, the maximum production rate could be achieved.

Exhibit P-40, Budget Item Justification Sheet											Date: February 1998	
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles						P-1 Item Nomenclature: TOW 2 SYSTEM SUMMARY (C59300)						
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty	143242	1541										144783
Gross Cost	2219.5	36.7	9.1	9.4	1.2						0.0	2275.9
Less PY Adv Proc	16.1											16.1
Plus CY Adv Proc	16.1											16.1
Net Proc (P-1)	2219.5	36.7	9.1	9.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	2275.9
Initial Spares	20.2											20.2
Total Proc Cost	2239.7	36.7	9.1	9.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	2296.1
Flyaway U/C	33.9	23.7										
Wpn Sys Proc U/C	0.016	0.023										

DESCRIPTION: TOW (Tube-Launched, Optically-Tracked, Wire-Guided Missile System) is designed to fulfill, the Heavy Antitank Assault Weapon System requirement for Close Combat Maneuver Forces. TOW is used primarily to destroy formations of armored vehicles, but is also an effective assault weapon against vehicles, field fortifications, and emplacements. TOW was a part of a combined United Nations interagency force in Somalia and may be used against other regional threats. TOW can be fired from a ground tripod or from specifically adapted vehicles, e.g., ITV, Bradley, HMMWV, and Cobra. TOW is designated as the point target weapon on selected helicopters. TOW 2 has two distinct improvements, increase performance/hardening and a 6" full caliber warhead. TOW 2A added a small shaped tip of the TOW 2 probe to counter reactive armor, TOW 2B is an improvement to TOW 2 lethality based on a new warhead, fuze, and software to obtain a fly-over-shoot-down-missile.

JUSTIFICATION: FY 98 funds completes plant transition/closure and final disposition of excess equipment.

Exhibit P-5, Weapon Missiles Cost Analysis	Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Line Item Nomenclature: TOW 2 SYSTEM SUMMARY (C59300)	Weapon System Type:	Date: February 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Missile Hardware-Recurring													
Missile Contract													
GFE													
Engineering Change Orders													
(Value Engineering)													
SUBTOTAL MISSILE HARDWARE													
Non-Recurring Costs													
Capstan Block		5000			4600								
Plant Transition/Closure/Final Disposition of excess equipment.		1004			1113			893					
SUBTOTAL NONRECURRING COST		6004			5713			893					
PROCUREMENT SUPPORT-													
Contractor Engineering													
Production Engineering		2063			1929			150					
Government Test		680			101								
Project Management Admin		240			1567			147					
Fielding													
SUBTOTAL		2983			3597			297					
Total Flyaway		8987			9310			1190					
Support Cost													
Peculiar Support Equipment													
Launcher (N/S)													
Training Device (B/S)													
DMPE													
Engineering Change Orders													
Other (Specify) FDT		108			75								
SUBTOTAL SUPPORT COST		108			75								
Gross P-1 End Cost		9095			9385			1190					
Less: Prior Year adv Proc													
Net P-1 Full Funding Cost		9095			9385			1190					
Plus P-1 CY Adv Proc.													
Other non P-1 Costs													
Initial Spares					2311			5410			6595		
MODS		41319			16			61061			62478		
TOTAL		**50414**			**11712**			**67661**			**69073**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		TOW 2 SYSTEM SUMMARY (C59300)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY 1996	Hughes Aircraft Tucson, AZ	SS/FFP	AMCOM	Aug-96	N/A	N/A	N/A	N/A	N/A	N/A
FY 1997 Final Disposition of Excess Equipment	Hughes Aircraft Tucson, AZ	TBD*	AMCOM	TBD	N/A	N/A	N/A	N/A	N/A	N/A
FY 1998 Final Disposition of Excess Equipment	Hughes Aircraft Tucson, AZ	TBD	AMCOM	TBD	N/A	N/A	N/A	N/A	N/A	N/A

REMARKS: *Plans not finalized for plant closure and material disposition.

FY 1998 / FY 1999 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY96 OCT	FY96 NOV	FY96 DEC	CY96 JAN	CY96 FEB	CY96 MAR	CY96 APR	CY96 MAY	CY96 JUN	CY96 JUL	CY96 AUG	CY96 SEP	FY97 OCT	FY97 NOV	FY97 DEC	CY97 JAN	CY97 FEB	CY97 MAR	CY97 APR	CY97 MAY	CY97 JUN	CY97 JUL	CY97 AUG	CY97 SEP	LATER
TOW 2 Missile	1	FY95&PRIOR	A	42735	35297	7438	1070				1000	1188			1000			589	600	600	541									850
	1	FY95&PRIOR	FMS	7702	3933	3769						1047					1665	11						1046							
	1	FY 96	FMS	4865	835	4030																				1183					2847
	1	FY 97	FMS	3231	0	3231																									3231
	1	FY 98	FMS	2693	0	2693																									2693

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
	HUGHES Aircraft Co., Tucson, AZ	500	500	1000	18

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL		12	3	15	18
	REORDER			3	15	18
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

FY 1998 / FY 1999 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY98 OCT	FY98 NOV	FY98 DEC	CY98 JAN	CY98 FEB	CY98 MAR	CY98 APR	CY98 MAY	CY98 JUN	CY98 JUL	CY98 AUG	CY98 SEP	FY99 OCT	FY99 NOV	FY99 DEC	CY99 JAN	CY99 FEB	CY99 MAR	CY99 APR	CY99 MAY	CY99 JUN	CY99 JUL	CY99 AUG	CY99 SEP	LATER
TOW Missile	1	FY95&Prior	A	42735	41885	850													850												
	1	FY 96	FMS	4865	2018	2847		2531	316																					
	1	FY 97	FMS	3231	0	3231								333	562					2336										
	1	FY 98	FMS	2693	0	2693																							907		1786

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
	HUGHES Aircraft Co., Tucson, AZ	500	500	1000	18

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	12	3	15	18
	REORDER		3	15	18
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

FY 1998 / FY 1999 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01										LATER
							Calendar Year 00												Calendar Year 01										
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
TOW Missile	1	FY 98	FMS	2693	907	1786		1786																					

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

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +	MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
	HUGHES Aircraft Co., Tucson, AZ	500	500	1000	18		INITIAL		12	3	15	18	
							REORDER			3	15	18	
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						

Exhibit P-40, Budget Item Justification Sheet	Date: February 1998
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 3 / Modification of Missles	P-1 Item Nomenclature: STINGER MODS (C20000)
Program Elements for Code B Items:	Code: / Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	14.4	5.0	11.8	37.2	21.1	13.9	19.6	26.3	31.6	26.1		207.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	14.4	5.0	11.8	37.2	21.1	13.9	19.6	26.3	31.6	26.1		207.0
Initial Spares												
Total Proc Cost	14.4	5.0	11.8	37.2	21.1	13.9	19.6	26.3	31.6	26.1		207.0
Flyaway U/C	Not Applicable - This is a modification program											
Wpn Sys Proc U/C	Not Applicable - This is a modification program											

DESCRIPTION

STINGER Block I Missile Upgrades - Hardware and software modifications to the STINGER RMP Missile System improves performance against targets which are slow moving, employing advanced counter-measures, or operating at night. These STINGER Block I Upgrade modifications maintain compatibility with all current and planned command and launch platforms including Air-To-Air STINGER, AVENGER, and the gripstock used in shoulder fired applications.

STINGER Block I Platform Upgrades - In order to take advantage of the Block I missile's improved capability, each firing platform must be modified. For Man Portable Air Defense System (MANPADS) gripstocks new Electronically Erasable Programmable Read Only Memory (EEPROMS) must be procured and installed in existing, fielded gripstocks. For Air-to-Air Stinger, Bradley Linebacker, and Avenger, new circuit card assemblies must be procured and installed in each systems Interface Electronics Assembly.

Bradley Linebacker (formerly Bradley STINGER Fighting Vehicle - Enhanced (BSFV-E)) - The Bradley Linebacker is an air defense system based upon minimal upgrades to the currently fielded Bradley Stinger Fighting Vehicle-Manpads Under Armor (BSFV-MUA). Funding for Bradley Linebacker in FY99 and out is now budgeted in Wheeled and Tracked Combat Vehicles (WTCV) appropriation.

JUSTIFICATION

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

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

Exhibit P-40M Budget Item Justification Sheet

Date: February 1998

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

P-1 Item Nomenclature: STINGER MODS (C20000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

Description		Fiscal Years									
OSIP NO.	Classification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
Stinger Block I Missile Upgrades											
01-87-03-1510	Operational	10.3	31.4	17.2	13.9	19.6	26.3	31.6	26.1		176.4
Stinger Block I Platform Upgrades											
TBD	TBD	0.0	5.8	3.9	0.0	0.0	0.0	0.0	0.0	0.0	9.7
Bradley Linebacker											
TBD	TBD	1.5	0.0		0.0	0.0	0.0	0.0	0.0	0.0	1.5
Totals		11.8	37.2	21.1	13.9	19.6	26.3	31.6	26.1	0.0	187.6

INDIVIDUAL MODIFICATION Date February 1998

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

MODELS OF SYSTEMS AFFECTED: Stinger-RMP Missile

DESCRIPTION / JUSTIFICATION:

The STINGER Block I Missile Upgrade materiel change incorporates hardware and software modifications to the STINGER-RMP missile system to increase overall missile performance in certain engagement scenarios and resolve a key aviation deficiency which requires a platforms to super-elevate. The engagement scenarios in which missile performance improves include head/tail-on and slow moving targets, counter-measures, and night time engagements. These changes include hardware changes to the missile and software changes to the command and launch platforms which include Air-to-Air STINGER, AVENGER, and gripstocks used in shoulder-fired applications. This materiel change was recommended by Army leadership as the near term solution to the STINGER RMP deficiencies.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

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

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	475	275	300	270	210	320	390	390	390	390	390	390	390	390	409	192	192	192	208	209	209
Outputs	130	205	140	275	300	270	210	320	390	390	390	390	390	390	390	390	409	192	192	192	208

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	209	281	281	282	282	308	308	308	309	217	217	218	218	102	102	102	102	10427
Outputs	209	209	209	281	281	282	282	308	308	308	309	217	217	218	218	102	306	10427

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

Contract Dates:	FY 1997	2nd Qtr, FY97	FY 1998	2nd Qtr, FY98	FY 1999	2nd Qtr, FY99
Delivery Date:	FY 1997	4th Qtr, FY98	FY 1998	4th Qtr, FY99	FY 1999	4th Qtr, FY00

INDIVIDUAL MODIFICATION — Date: February 1998

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

FINANCIAL PLAN: ($ in Millions)

	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E		30.8		3.7																34.5
PROCUREMENT																				
Kit Quantity	1850		1987		1350		768		835		1126		1233		870		408		10427	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		24.9		28.9		17.2		13.9		19.6		26.3		31.6		26.1		17.4		205.9
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other --- LInebacker Task Force XXI				2.5																2.5
Interim Contractor Support																				
					FY98 includes $3.7M from Bradley Linebacker (C21500).															
Installation of Hardware		"Installation of Hardware" costs are included in "Equipment" above.																		
FY 1996 & Prior Eqpt -- Kits	1850																		1850	
FY 1997 Eqpt -- Kits			1987																1987	
FY 1998 Eqpt -- Kits					1350														1350	
FY 1999 Eqpt -- Kits							768												768	
FY 2000 Eqpt -- kits									835										835	
FY 2001 Eqpt -- kits											1126								1126	
FY 2002 Eqpt -- kits													1233						1233	
FY 2003 Eqpt -- kits															870				870	
TC Equip-Kits																	408		408	
Total Installment	1850		1987		1350		768		835		1126		1233		870		408		10427	
Total Procurement Cos		24.9		31.4		17.2		13.9		19.6		26.3		31.6		26.1		17.4		208.4

INDIVIDUAL MODIFICATION — Date: February 1998

MODIFICATION TITLE: Stinger Block I Platform Upgrades TBD

MODELS OF SYSTEMS AFFECTED: Manpads, Avenger, Bradley Linebacker, OH-58D

DESCRIPTION / JUSTIFICATION:

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

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development has been completed.

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs												826	202	486	902	916	464				
Outputs												826	202	486	902	916	464				

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		3796
Outputs																		3796

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 25 Months

Contract Dates:	FY 1997	3rd Qtr, FY97	FY 1998	2nd Qtr, FY98	FY 1999	Not applicable
Delivery Date:	FY 1997	3rd Qtr, FY99	FY 1998	3rd Qtr, FY00	FY 1999	Not applicable

INDIVIDUAL MODIFICATION																		Date	February 1998	
MODIFICATION TITLE (Cont):	Stinger Block I Platform Upgrades TBD																			
FINANCIAL PLAN: ($ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	0		2416		1380														3796	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment				5.8		3.9														9.7
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware	"Installation of Hardware" costs are included in"Equipment" above.																			
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits							1028		1388										2416	
FY 1998 Eqpt -- Kits									1380										1380	
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment							1028		2768										3796	
Total Procurement Cos				5.8		3.9														9.7

INDIVIDUAL MODIFICATION Date February 1998

MODIFICATION TITLE: Bradley Linebacker TBD

MODELS OF SYSTEMS AFFECTED: Bradley Stinger Fighting Vehicle - Manpads Under Armor (BSFV-MUA)

DESCRIPTION / JUSTIFICATION:

The Bradley LINEBACKER, formerly the Bradley Stinger Fighting Vehicle-Enhanced (BSFV-E), is an air defense system based upon min upgrades to the currently fielded BSFV-MUA. The Bradley LINEBACKER provides heavy maneuver forces with dedicated air defense against a variety of threat platforms. The Bradley LINEBACKER is a Non-Development Item rapid acquisition procurement to upgrade the existing BSFV-MUA with the addition of Bradley LINEBACKER modification kit. The kit includes an integrated, externally mounted Standard Vehicle Mounted Launcher with a modified fire control. It fires up to four Stinger missiles while the crew remains under armor protection. The Bradley LINEBACKER fielding maximizes the utility of the FAADS C2I Kit and the Bradley Fighting Vehicle-Operational Desert Storm which are being fielded separately by CECOM and TACOM. This materiel solution corrects major Air Defense Artillery deficiencie survivability, fire control, target acquisition and identification with a reduction in crew size as a force savings.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Operational test and evaluation	September 1996
Production decision	November 1996

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	8																				
Outputs	8																				

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		8
Outputs																		8

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

Contract Dates:	FY 1997	Not applicable	FY 1998	Not applicable	FY 1999	Not applicable	
Delivery Date:	FY 1997	Not applicable	FY 1998	Not applicable	FY 1999	Not applicable	

INDIVIDUAL MODIFICATION																		Date	February 1998		
MODIFICATION TITLE (Cont):	Bradley Linebacker TBD																				
FINANCIAL PLAN: ($ in Millions)																					
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	
RDT&E		8.8																		8.8	
PROCUREMENT																					
Kit Quantity	8		0		0														8		
Installation Kits																					
Installation Kits, Nonrecurring																					
Equipment		1.5																		1.5	
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
			Proponency for Bradley Linebacker was transferred from Stinger PMO to Bradley PMO in FY97. $7.1M in FY97 moved from MIPA to WTCV through Omnibus reprogramming. FY98 $3.7M executed in C21300, Stinger Block I Missile Upgrades.																		
Installation of Hardware			"Installation of Hardware" costs are included in"Equipment" above.																		
FY 1996 & Prior Eqpt -- Kits	8																		8		
FY 1997 Eqpt -- Kits																					
FY 1998 Eqpt -- Kits																					
FY 1999 Eqpt -- Kits																					
FY 2000 Eqpt -- kits																					
FY 2001 Eqpt -- kits																					
FY 2002 Eqpt -- kits																					
FY 2003 Eqpt -- kits																					
TC Equip-Kits																					
Total Installment	8																		8		
Total Procurement Cos		1.5																		1.5	

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

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

P-1 Item Nomenclature: AVENGER MODS (CE8710)

Program Elements for Code B Items:

Code: A

Other Related Program Elements: C14900 AVENGER SYSTEM SUMMARY, C15200 AVENGER TRAINING DEVICES, C16000 AVENGER PED MT STINGER (MYP)

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	9.5	10.0	0.0	0.0	0.0	8.4	8.5	7.0	15.8	2.9		62.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	9.5	10.0	0.0	0.0	0.0	8.4	8.5	7.0	15.8	2.9		62.2
Initial Spares			1.0									1.0
Total Proc Cost	9.5	10.0	1.0	0.0	0.0	8.4	8.5	7.0	15.8	2.9		63.2
Flyaway U/C												
Wpn Sys Proc U/C												

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

JUSTIFICATION: The Slew-to-cue (STC) upgrade accepts sensor track data from the Forward Area Air Defense Command, Control and Intelligence System (FAAD C2I) and automatically slews the AVENGER turret in azimuth and elevation, placing targets in the gunner's field of view. The STC provides a 55% increase in the number of engagements and a greater increase in the number of kills. The STC was approved by the Warfighting Rapid Acquisition Panel (WRAP) Council in Dec 96. Funding was approved in Mar 97 and provided through TRADOC for $5.8M in FY 97 RDT&E dollars. Funds are provided to fund the STC through FY 04; funding required in outyears for modifications to defeat obsolescence of AVENGER system electronics for Army forces only.

NOTE: Congress provided an additional $7.2M in FY 98 on Avenger System Summary, which appropriately should be in this program, Avenger Mods. Details on the FY98 $7.2M follow on the P-3a.

Exhibit P-40M Budget Item Justification Sheet										Date: February 1998	
Appropriation / Budget Activity/Serial No.: MISSILE PROCUREMENT / 3 / Modification of Missles						P-1 Item Nomenclature: AVENGER MODS (CE8710)					
Program Elements for Code B Items			Code: A		Other Related Program Elements						
Description		Fiscal Years									
OSIP NO.	Classification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
AVENGER SLEW-TO-CUE											
TBD	UNCLASSIFIED	0.0	0.0	0.0	8.4	8.5	7.0	15.8	2.9	0.0	42.7
Totals		0.0	0.0	0.0	8.4	8.5	7.0	15.8	2.9	0.0	42.7

INDIVIDUAL MODIFICATION — Date: February 1998

MODIFICATION TITLE: AVENGER SLEW-TO-CUE

MODELS OF SYSTEMS AFFECTED: AVENGER PED MT STINGER (MYP) 16000

DESCRIPTION / JUSTIFICATION:

AVENGER is fielded in divisional and corps SHORAD battalions and USMC units. The AVENGER system is a lightweight, highly mobile 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 HMMWV. The AVENGER is operated by a two-man crew for stationary or shoot-on-the-move defense against UAVs, cruise missiles, helicopters, and fixed-wing aircraft in all weather conditions.
MODIFICATION: The Slew-to-cue (STC) upgrade accepts sensor track data from the 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 WRAP Council in Dec 96. WRAP provided $5 FY97 RDTE funds which will fund LRIP/Prototype contract. The STC will be embedded into the AVENGER Fire Control Computer

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

FUNDING RECEIVED 10/97
LRIP/PROTOTYPE CONTRACT AWARD FEB-APR 98 (Funded with WRAP R&D funds)
DELIVERIES (PROTOTYPE) APR - SEP 98 (These are R&D quantities and are not shown.)
TESTING (PROTOTYPE) JUN - SEP 98
MS III (PRODUCTION) AUG-OCT 98

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs											13	13	14	14	14	14	14	14	14	13	12
Outputs												13	13	14	14	14	14	14	14	14	13

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	10	10	10	10	26	27	27	27	3	2	2	2	25	25	25	24	42	446
Outputs	12	10	10	10	10	26	27	27	27	3	2	2	2	25	25	25	66	446

METHOD OF IMPLEMENTATION: DELIVERY ORDER ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 8 Months

Contract Dates:	FY 1997	FEB 98	FY 1998	AUG 98	FY 1999	JUN 99
Delivery Date:	FY 1997	OCT 98	FY 1998	JUN 99	FY 1999	APR 00

INDIVIDUAL MODIFICATION — Date: February 1998

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

FINANCIAL PLAN: ($ in Millions)

	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity					28		52		53		40		107		9				289	
Manufacturing Facilities						0.1		0.1		0.1		0.1		0.1		0.1				0.4
Hardware						2.7		5.0		5.1		4.0		10.9		1.0				28.7
CLS-Labor						0.0		0.1		0.2		0.2		0.3		0.4				1.2
CLS-Initial Spares						0.4		0.7		0.8		0.6		1.5		0.1				4.1
CLS-Initial Consumables						0.1		0.1		0.1		0.1		0.3		0.0				0.8
1st Dest Tran						0.0		0.0		0.0		0.0		0.0		0.0				0.1
Training						0.1														0.1
Log Demo/Test Spt						0.1														0.1
Dev/Update Manuals						0.1														0.1
PQT						0.6														0.6
Refurbish Kits						0.4														0.4
Gov NET,LSAR,TPS,SDT						1.0		0.1		0.1		0.2		0.3		0.2				1.9
Project Management						1.2		1.7		1.5		1.4		1.2		1.0				7.9
Installation of Hardware			NOTE: Installation costs are included in the cost of the kits.																	
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits					28	0.5	52	0.6											80	1.0
FY 2000 Eqpt -- kits									53	0.6									53	0.6
FY 2001 Eqpt -- kits											40	0.5							40	0.5
FY 2002 Eqpt -- kits													107	1.2	9	0.1			116	1.3
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment					28	0.5	52	0.6	53	0.6	40	0.5	107	1.2	9	0.1			289	3.3
Total Procurement Cos						7.2		8.4		8.5		7.0		15.8		2.9				49.8

Exhibit P-40, Budget Item Justification Sheet											Date: February 1998	
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 5 / Support Equipment and Facilities						P-1 Item Nomenclature: ITEMS LESS THAN $2.0M (MISSILES) (CL2000)						
Program Elements for Code B Items:				Code: A	Other Related Program Elements:							
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	32.9	1.2	0.8	1.0	0.9	0.9	1.0	1.0	1.1	1.1	0.0	41.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	32.9	1.2	0.8	1.0	0.9	0.9	1.0	1.0	1.1	1.1	0.0	41.9
Initial Spares												
Total Proc Cost	32.9	1.2	0.8	1.0	0.9	0.9	1.0	1.0	1.1	1.1	0.0	41.9
Flyaway U/C												
Wpn Sys Proc U/C												

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

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

MLRS
TOW
AVENGER

Exhibit P-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 $2.0M (MISSILES) (CL2000)	Weapon System Type:	Date: February 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
ALL ARE MISSILE TOOL KITS. NO MODS													
1. MLRS	A												
COMPONENTS		251			485			454			459		
ASSEMBLY		215			260			237			242		
2. TOW	A												
COMPONENTS		65			16			16			14		
ASSEMBLY		35			8			8			6		
3. AVENGER	A												
COMPONENTS		165			142			140			132		
ASSEMBLY		89			78			73			69		
TOTAL		**820**			**989**			**928**			**922**		
NOTE: EACH SYSTEM HAS MORE THAN ONE KIT WITH VARYING QUANTITIES AND UNIT COSTS FOR EACH KIT.													

Exhibit P-40, Budget Item Justification Sheet											Date: February 1998	
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles						P-1 Item Nomenclature: TOW 2 SYSTEM SUMMARY (C59300)						
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty	143242	1541										144783
Gross Cost	2219.5	36.7	9.1	9.4	1.2						0.0	2275.9
Less PY Adv Proc	16.1											16.1
Plus CY Adv Proc	16.1											16.1
Net Proc (P-1)	2219.5	36.7	9.1	9.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	2275.9
Initial Spares	20.2											20.2
Total Proc Cost	2239.7	36.7	9.1	9.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	2296.1
Flyaway U/C	33.9	23.7										
Wpn Sys Proc U/C	0.016	0.023										

DESCRIPTION: TOW (Tube-Launched, Optically-Tracked, Wire-Guided Missile System) is designed to fulfill, the Heavy Antitank Assault Weapon System requirement for Close Combat Maneuver Forces. TOW is used primarily to destroy formations of armored vehicles, but is also an effective assault weapon against vehicles, field fortifications, and emplacements. TOW was a part of a combined United Nations interagency force in Somalia and may be used against other regional threats. TOW can be fired from a ground tripod or from specifically adapted vehicles, e.g., ITV, Bradley, HMMWV, and Cobra. TOW is designated as the point target weapon on selected helicopters. TOW 2 has two distinct improvements, increase performance/hardening and a 6" full caliber warhead. TOW 2A added a small shaped tip of the TOW 2 probe to counter reactive armor, TOW 2B is an improvement to TOW 2 lethality based on a new warhead, fuze, and software to obtain a fly-over-shoot-down-missile.

JUSTIFICATION: FY 98 funds completes plant transition/closure and final disposition of excess equipment.

Exhibit P-5, Weapon Missiles Cost Analysis	Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Line Item Nomenclature: TOW 2 SYSTEM SUMMARY (C59300)	Weapon System Type:	Date: February 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Missile Hardware-Recurring													
Missile Contract													
GFE													
Engineering Change Orders													
(Value Engineering)													
SUBTOTAL MISSILE HARDWARE													
Non-Recurring Costs													
Capstan Block		5000			4600								
Plant Transition/Closure/Final Disposition of excess equipment.		1004			1113			893					
SUBTOTAL NONRECURRING COST		6004			5713			893					
PROCUREMENT SUPPORT-													
Contractor Engineering													
Production Engineering		2063			1929			150					
Government Test		680			101								
Project Management Admin		240			1567			147					
Fielding													
SUBTOTAL		2983			3597			297					
Total Flyaway		8987			9310			1190					
Support Cost													
Peculiar Support Equipment													
Launcher (N/S)													
Training Device (B/S)													
DMPE													
Engineering Change Orders													
Other (Specify) FDT		108			75								
SUBTOTAL SUPPORT COST		108			75								
Gross P-1 End Cost		9095			9385			1190					
Less: Prior Year adv Proc													
Net P-1 Full Funding Cost		9095			9385			1190					
Plus P-1 CY Adv Proc.													
Other non P-1 Costs													
Initial Spares					2311			5410			6595		
MODS		41319			16			61061			62478		
TOTAL		**50414**			**11712**			**67661**			**69073**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		TOW 2 SYSTEM SUMMARY (C59300)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY 1996	Hughes Aircraft Tucson, AZ	SS/FFP	AMCOM	Aug-96	N/A	N/A	N/A	N/A	N/A	N/A
FY 1997 Final Disposition of Excess Equipment	Hughes Aircraft Tucson, AZ	TBD*	AMCOM	TBD	N/A	N/A	N/A	N/A	N/A	N/A
FY 1998 Final Disposition of Excess Equipment	Hughes Aircraft Tucson, AZ	TBD	AMCOM	TBD	N/A	N/A	N/A	N/A	N/A	N/A

REMARKS: *Plans not finalized for plant closure and material disposition.

FY 1998 / FY 1999 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY96 OCT	FY96 NOV	FY96 DEC	CY96 JAN	CY96 FEB	CY96 MAR	CY96 APR	CY96 MAY	CY96 JUN	CY96 JUL	CY96 AUG	CY96 SEP	FY97 OCT	FY97 NOV	FY97 DEC	CY97 JAN	CY97 FEB	CY97 MAR	CY97 APR	CY97 MAY	CY97 JUN	CY97 JUL	CY97 AUG	CY97 SEP	LATER
TOW 2 Missile	1	FY95&PRIOR	A	42735	35297	7438	1070				1000	1188			1000			589	600	600	541									850
	1	FY95&PRIOR	FMS	7702	3933	3769						1047					1665	11						1046							
	1	FY 96	FMS	4865	835	4030																				1183					2847
	1	FY 97	FMS	3231	0	3231																									3231
	1	FY 98	FMS	2693	0	2693																									2693

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
	HUGHES Aircraft Co., Tucson, AZ	500	500	1000	18

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL		12	3	15	18
	REORDER			3	15	18
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

FY 1998 / FY 1999 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY98 OCT	FY98 NOV	FY98 DEC	CY98 JAN	CY98 FEB	CY98 MAR	CY98 APR	CY98 MAY	CY98 JUN	CY98 JUL	CY98 AUG	CY98 SEP	FY99 OCT	FY99 NOV	FY99 DEC	CY99 JAN	CY99 FEB	CY99 MAR	CY99 APR	CY99 MAY	CY99 JUN	CY99 JUL	CY99 AUG	CY99 SEP	LATER
TOW Missile	1	FY95&Prior	A	42735	41885	850													850												
	1	FY 96	FMS	4865	2018	2847		2531	316																					
	1	FY 97	FMS	3231	0	3231								333	562					2336										
	1	FY 98	FMS	2693	0	2693																							907		1786

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
	HUGHES Aircraft Co., Tucson, AZ	500	500	1000	18

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	12	3	15	18
	REORDER		3	15	18
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

FY 1998 / FY 1999 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01										LATER
							Calendar Year 00												Calendar Year 01										
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
TOW Missile	1	FY 98	FMS	2693	907	1786		1786																					

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

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +	MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
	HUGHES Aircraft Co., Tucson, AZ	500	500	1000	18		INITIAL		12	3	15	18	
							REORDER			3	15	18	
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 5 / Support Equipment and Facilities

P-1 Item Nomenclature: MISSILE DEMILITARIZATION (HL2000)

Program Elements for Code B Items:

Code: A

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	1.6	1.5	1.5	1.5	1.4	1.4	1.5	1.5	0.0	12.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	1.6	1.5	1.5	1.5	1.4	1.4	1.5	1.5	0.0	12.0
Initial Spares												
Total Proc Cost	0.0	0.0	1.6	1.5	1.5	1.5	1.4	1.4	1.5	1.5	0.0	12.0
Flyaway U/C												
Wpn Sys Proc U/C												

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

Justification: The backlog of missiles requiring demilitarization is a growing concern of the Department of the Army. Changes during the past few years in the world wide political environment have resulted in drastic changes in military strategies. Reduced requirements of prepositioned military forces, retrograde of weapon system assets from Europe and major changes in war reserve planning have placed a tremendous strain on the CONUS wholesale storage base. Currently there are some 52,000 missiles and 100,000 missile components utilizing 99 premium storage igloos that require demilitarization. Specifically, the funding in FY99 will continue the process of demilitarization of priority one (obsolete, excess, environmental concern and using valuable storage space) missiles, i.e., Shillelagh.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 5 / Support Equipment and Facilities			P-1 Line Item Nomenclature: MISSILE DEMILITARIZATION (HL2000)			Weapon System Type:			Date: February 1998		
Missiles Cost Elements	ID CD	**FY 96**			**FY 97**			**FY 98**			**FY 99**		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
SHILLELAGH		1,080	7,560	0	750	6,174	0	758	5,500	0	785	5,600	0
SS-11					166	3,165	0	191	3,272	0			
Environmental Assessment		24											
NIKE-HERC					121	200		335	494		245	353	
REDEYE		200	432	0	5	48	0						
ROLAND					68	100		50	100	1	123	237	1
Environmental Assessment		24											
HAWK					75	67		56	100	1	147	220	
Environmental Assessment		24											
CHAPARRAL					98	120					166	225	
Environmental Assessment		24											
TOW Motors					246	29,356	0						
MISC Demil		267						76					
TOTAL		**1,643**			**1,529**			**1,466**			**1,466**		

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 5 / Support Equipment and Facilities

P-1 Item Nomenclature: PRODUCTION BASE SUPPORT (CA0100)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	591.9	3.6	2.8	1.7	3.3	3.3	3.6	3.5	3.8	3.8	0.0	621.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	591.9	3.6	2.8	1.7	3.3	3.3	3.6	3.5	3.8	3.8	0.0	621.2
Initial Spares												
Total Proc Cost	591.9	3.6	2.8	1.7	3.3	3.3	3.6	3.5	3.8	3.8	0.0	621.2
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 FY99 request includes replacement/rehabilitation of existing equipment or instrumentation and modernization of test facilities at the Redstone Arsenal Technical Test Center and White Sands Missile Range. It is also essential in sustaining the Army's missile warhead production capability, eliminating safety hazards, etc., at the Iowa Army AMMO Plant.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

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

P-1 Item Nomenclature: MLRS ROCKET (C65400)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty	478398		1326	1500	528	426	432	390	300	1200		484500
Gross Cost	3533.9	35.4	44.6	45.3	19.3	16.5	17.3	18.4	24.5	59.7	0.0	3815.0
Less PY Adv Proc	429.4											429.4
Plus CY Adv Proc	449.8											449.8
Net Proc (P-1)	3554.2	35.4	44.6	45.3	19.3	16.5	17.3	18.4	24.5	59.7	0.0	3835.3
Initial Spares												
Total Proc Cost	3554.2	35.4	44.6	45.3	19.3	16.5	17.3	18.4	24.5	59.7	0.0	3835.3
Flyaway U/C	0.007		0.033	0.030	0.035	0.037	0.039	0.045	0.079	0.049		
Wpn Sys Proc U/C	0.007		0.034	0.030	0.037	0.039	0.040	0.047	0.082	0.050		

DESCRIPTION: The Extended Range Multiple Launch Rocket System (ER-MLRS), which began production in FY96, includes a tube-launched, spin stabilized, free flight rocket. Major assemblies of the rocket are a fuzed warhead, a rocket motor, four fins, a fin opening/restraint device, and four sabots. The rocket is packaged in a six rocket pod and can be fired one at a time or in ripples of two to six. The ER-MLRS rocket will enhance the capability of the existing MLRS rocket by providing improvements in range, accuracy and effectiveness, and maneuver force safety (improved submunitions with self destruct fuzes). Starting in FY 02, the Guided Multiple Launch Rocket System (GMLRS) will integrate a guidance and control package into the ER-MLRS rocket which will result in reduced mission time and increased survivability of the system.

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. ER-MLRS will accomplish this mission. The GMLRS will provide greater range and significantly enhanced accuracy. Since fewer rockets will be required to defeat a target, the logistics burden will be reduced.

* Quantities were corrected after the P-1 database locked because of recent revisions to Submunition Costs, and projected FMS cases did not materialize.

Exhibit P-5, Weapon Missiles Cost Analysis		Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles			P-1 Line Item Nomenclature: MLRS EXTENDED RANGE ROCKET (C65402)			Weapon System Type:			Date: February 1998		
Missiles	ID	**FY 96**			**FY 97**			**FY 98**			**FY 99**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$	$OOO	Each	$	$OOO	Each	$	$OOO	Each	$
FLY-AWAY COSTS													
HARDWARE													
Tactical/Practice Round (Less GFE)		22451	1326	16931	32300	1500	21533	12232	528	23167	10136	426	23793
Submunition		12067	686868	18	9012	777000	12	3282	273504	12	2869	220668	13
Engineering Services		8561			2767			1502			1533		
Engineering Change Orders					11			205			258		
Fielding								230			132		
SUBTOTAL		**43079**			**44090**			**17451**			**14928**		
PROCUREMENT SUPPORT													
Project Management Admin		450			620			1036			1051		
Test & Evaluation		973			500			730			422		
Service Support Contract		105			108			110			112		
SUBTOTAL		**1528**			**1228**			**1876**			**1585**		
Gross P-1 End Cost		**44607**			**45318**			**19327**			**16513**		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		**44607**			**45318**			**19327**			**16513**		
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares													
Mods													
TOTAL		**44607**			**45318**			**19327**			**16513**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

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

Weapon System Type:

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

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Tactical/Practice Round (Less GFE)										
FY 96	Lockheed Martin Vought Sys., Dallas, TX	SS/FFP	PEO-Tactical Missiles/MICOM	Aug-96	Jan-98	1326	16931	Yes		
FY 97	Lockheed Martin Vought Sys., Dallas, TX	SS/FFP	PEO-Tactical Missiles/MICOM	Feb-97	May-98	1500	21533	Yes		
FY 98	Lockheed Martin Vought Sys., Dallas, TX	SS/FFP	PEO-Tactical Missiles/MICOM	Jul-98	Dec-99	528	23167	Yes		
FY 99	Lockheed Martin Vought Sys., Dallas, TX	SS/FFP	PEO-Tactical Missiles/MICOM	Dec-98	May-00	426	23793	Yes		

REMARKS: No Tactical Rockets procured in FY 95.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 96 OCT	FY 96 NOV	FY 96 DEC	CY 96 JAN	CY 96 FEB	CY 96 MAR	CY 96 APR	CY 96 MAY	CY 96 JUN	CY 96 JUL	CY 96 AUG	CY 96 SEP	FY 97 OCT	FY 97 NOV	FY 97 DEC	CY 97 JAN	CY 97 FEB	CY 97 MAR	CY 97 APR	CY 97 MAY	CY 97 JUN	CY 97 JUL	CY 97 AUG	CY 97 SEP	LATER
Tactical/Practice Round (Less GFE)	1	94 & Pr	A	477396	477396																									
	1	94 & Pr	FMS	26244	23118	3126			948											270	216	120	450	450	450	222				
ER-MLRS	2	FY 96	A	1326	0	1326											A													1326
	2	FY 97	A	1500	0	1500																A								1500
	2	FY 97	FMS	1338	0	1338																								1338
	2	FY 98	A	528	0	528																								528
	2	FY 98	FMS	1572	0	1572																								1572
	2	FY 99	A	426	0	426																								426
	2	FY 00	A	432	0	432																								432
	2	FY01	A	390	0	390																								390
GMLRS	3	FY 02	A	300	0	300																								300
	3	FY03	A	1200	0	1200																								1200
TOTAL				**512652**	**500514**	**12138**			948											270	216	120	450	450	450	222				9012

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

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

REMARKS

No Tactical Rockets procured in FY 95.

Reduced Range Practice Rockets delivered Oct 95 - Nov 96 and 4Q97.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 98 OCT	FY 98 NOV	FY 98 DEC	CY 98 JAN	CY 98 FEB	CY 98 MAR	CY 98 APR	CY 98 MAY	CY 98 JUN	CY 98 JUL	CY 98 AUG	CY 98 SEP	FY 99 OCT	FY 99 NOV	FY 99 DEC	CY 99 JAN	CY 99 FEB	CY 99 MAR	CY 99 APR	CY 99 MAY	CY 99 JUN	CY 99 JUL	CY 99 AUG	CY 99 SEP	LATER
Tactical/Practice Round (Less GFE)	1	94 & Pr	A	477396	477396																									
	1	94 & Pr	FMS	26244	26244																									
ER-MLRS	2	FY 96	A	1326	0	1326				330	330	330	336																	
	2	FY 97	A	1500	0	1500								150	150	150		150	150	150	150	72	108	120						
	2	FY 97	FMS	1338	0	1338											324					78	42	6	120	120	120	120	114	294
	2	FY 98	A	528	0	528										A														528
	2	FY 98	FMS	1572	0	1572																								1572
	2	FY 99	A	426	0	426															A									426
	2	FY 00	A	432	0	432																								432
	2	FY01	A	390	0	390																								390
GMLRS	3	FY 02	A	300	0	300																								300
	3	FY03	A	1200	0	1200																								1200
TOTAL				**512652**	**503640**	**9012**				330	330	330	336	150	150	150	324	150	150	150	150	150	150	126	120	120	120	120	114	5142

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

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

REMARKS

No Tactical Rockets procured in FY 95.

Reduced Range Practice Rockets delivered 1Q98.

FY 96 quantities reflect nonstandard production based on contract.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 00 OCT	FY 00 NOV	FY 00 DEC	CY 00 JAN	CY 00 FEB	CY 00 MAR	CY 00 APR	CY 00 MAY	CY 00 JUN	CY 00 JUL	CY 00 AUG	CY 00 SEP	FY 01 OCT	FY 01 NOV	FY 01 DEC	CY 01 JAN	CY 01 FEB	CY 01 MAR	CY 01 APR	CY 01 MAY	CY 01 JUN	CY 01 JUL	CY 01 AUG	CY 01 SEP	LATER
Tactical/Practice Round (Less GFE)	1	94 & Pr	A	477396	477396																										
	1	94 & Pr	FMS	26244	26244																										
ER-MLRS	2	FY 96	A	1326	1326																										
	2	FY 97	A	1500	1500																										
	2	FY 97	FMS	1338	1044	294	108	108	78																						
	2	FY 98	A	528	0	528			30	108	108	108	108	66																	
	2	FY 98	FMS	1572	0	1572									60	120	120	120	120	120	120	120	120	120	120	120	120	72				
	2	FY 99	A	426	0	426								42	48	36	36	36	36	36	36	36	36	36	12						
	2	FY 00	A	432	0	432																			24	36	36	78	42	36	180
	2	FY01	A	390	0	390																									390
GMLRS	3	FY 02	A	300	0	300																									300
	3	FY03	A	1200	0	1200																									1200
TOTAL				**512652**	**507510**	**5142**	108	108	108	108	108	108	108	108	108	156	156	156	156	156	156	156	156	156	156	156	156	150	42	36	2070

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

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

REMARKS

No Tactical Rockets procured in FY 95.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02 / Calendar Year 02												Fiscal Year 03 / Calendar Year 03									LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Tactical/Practice Round (Less GFE)	1	94 & Pr	A	477396	477396																									
	1	94 & Pr	FMS	26244	26244																									
ER-MLRS	2	FY 96	A	1326	1326																									
	2	FY 97	A	1500	1500																									
	2	FY 97	FMS	1338	1338																									
	2	FY 98	A	528	528																									
	2	FY 98	FMS	1572	1572																									
	2	FY 99	A	426	426																									
	2	FY 00	A	432	252	180	36	36	36	36	36																			
	2	FY01	A	390	0	390						36	36	36	36	36	30	30	30	30	30	30	30							
GMLRS	3	FY 02	A	300	0	300																		24	24	24	24	24	24	24	132
	3	FY03	A	1200	0	1200																									1200
TOTAL				**512652**	**510582**	**2070**	36	36	36	36	36	36	36	36	36	36	30	30	30	30	30	30	30	24	24	24	24	24	24	24	1332

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

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

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

REMARKS

No Tactical Rockets procured in FY 95.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 04 / Calendar Year 04 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Fiscal Year 05 / Calendar Year 05 OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	LATER
Tactical/Practice Round (Less GFE)	1	94 & Pr	A	477396	477396																										
	1	94 & Pr	FMS	26244	26244																										
ER-MLRS	2	FY 96	A	1326	1326																										
	2	FY 97	A	1500	1500																										
	2	FY 97	FMS	1338	1338																										
	2	FY 98	A	528	528																										
	2	FY 98	FMS	1572	1572																										
	2	FY 99	A	426	426																										
	2	FY 00	A	432	432																										
	2	FY01	A	390	390																										
GMLRS	3	FY 02	A	300	168	132	24	24	24	24	36																				
	3	FY03	A	1200	0	1200						78	102	102	102	102	102	102	102	102	102	102	102								
TOTAL				**512652**	**511320**	**1332**	24	24	24	24	36	78	102	102	102	102	102	102	102	102	102	102	102								

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

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

REMARKS

No Tactical Rockets procured in FY 95.

Exhibit P-40, Budget Item Justification Sheet											Date: February 1998	
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles						P-1 Item Nomenclature: MLRS LAUNCHER (C65900)						
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty	734	20			35	24	54	71	90	140	442	1610
Gross Cost	1763.6	130.5	81.1	103.6	118.7	85.4	142.9	175.7	198.7	279.3	1074.1	4153.6
Less PY Adv Proc	54.5							15.7	22.4	33.1	68.9	194.6
Plus CY Adv Proc	56.9						15.7	46.4	40.9		37.1	197.0
Net Proc (P-1)	1766.0	130.5	81.1	103.6	118.7	85.4	158.6	206.4	217.3	246.2	1042.3	4156.0
Initial Spares	141.8	12.0	5.1		1.0	6.9	6.1	10.5	12.6	12.4		208.4
Total Proc Cost	1907.8	142.5	86.2	103.6	119.7	92.2	164.7	216.8	229.9	258.6	1042.3	4364.3
Flyaway U/C	2.2	5.8	2.1	2.3	3.6	3.6	2.7	2.5	2.3	2.1	2.4	
Wpn Sys Proc U/C	2.4	6.5	2.8	3.0	3.4	3.6	2.9	2.9	2.4	1.8	2.4	

DESCRIPTION: The Multiple Launch Rocket System (MLRS) provides a high volume of fire power in a very short timeframe. Operationally, the concept 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 personnel to conduct launching missions. The range, using the Extended Range rocket, is 45 kilometers. Starting in FY 98 an Improved Fire Control System (IFCS) and an Improved Launcher Mechanical System (ILMS) will be procured and become 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 will upgrade 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 will allow 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. FY 96 and FY 97 funds provide for remanufactured launchers. FY 98 and out quantities are for M270A1 upgrades. The M270A1 upgrades are needed to fire the Block 1A ATACMS missile. FY 98-03 funding also includes five batteries of rebuilt launchers for deployment to MLRS Heavy Divisions. FY99 funds buy 24 M270A1 launchers.

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

Exhibit P-5, Weapon Missiles Cost Analysis	Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Line Item Nomenclature: MLRS LAUNCHER (C65900)	Weapon System Type:	Date: February 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$	$OOO	Each	$	$OOO	Each	$	$OOO	Each	$
GROUND EQUIPMENT HARDWARE													
Launcher*		12185	29	420172	13780	35	393714	63977	35	1827914	47053	24	1960542
Carrier (GFE)		3609	29	124448	7348	35	209943				4160	24	173333
Launcher Pod/Container (LP/C) Trainer		1132	58	19517	1405	70	20071	766	70	10943	526	48	10958
2x9 Launcher					9917			21772					
Peculiar Support Equipment		20196			17762			11906					
Engineering Services		26791			38720			10857			20885		
Engineering Change Orders		77						500			516		
Fielding		8014			6400						3245		
SUBTOTAL		**72004**			**95332**			**109778**			**76385**		
PROCUREMENT SUPPORT													
Project Management Admin		8200			7341			7418			7474		
Service Support Contract		889			892			1514			1528		
SUBTOTAL		**9089**			**8233**			**8932**			**9002**		
Gross P-1 End Cost		**81093**			**103565**			**118710**			**85387**		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		**81093**			**103565**			**118710**			**85387**		
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs (Mod Spares)		2051			1829			991			622		
Initial Spares		5077						998			6862		
Mods		27475			6397			2129			2193		
TOTAL		**115696**			**111791**			**122828**			**95064**		

* Launchers in FY96 and FY97 are remanufactured hardware.

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

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

Weapon System Type:

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

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Launcher M270										
FY 95	Lockheed Martin Vought Sys, Dallas, TX	SS/FFP	PEO-Tactical Missiles/MICOM	Mar-95	Nov-96	20	1826400	Yes		
Launcher Remanufacture										
FY 96	Lockheed Martin Vought Sys, Dallas, TX	SS/FFP	PEO-Tactical Missiles/MICOM	Aug-96	May-97	29	420172	Yes		
FY 97	Lockheed Martin Vought Sys, Dallas, TX	SS/FFP	PEO-Tactical Missiles/MICOM	Nov-96	Nov-97	35	393714	Yes		
Launcher M270A1										
FY 98	Lockheed Martin Vought Sys, Dallas, TX	SS/FFP	PEO-Tactical Missiles/MICOM	Mar-98	Apr-00	35	1827914	Yes		
FY 99	Lockheed Martin Vought Sys, Dallas, TX	SS/FFP	PEO-Tactical Missiles/MICOM	Jan-99	Apr-01	24	1960542	Yes		

REMARKS: First deliveries of FY 96 remanufacture launchers by Red River Army Depot (RRAD) Oct 96; contract with Lockheed Martin Vought System delivers 20 launchers starting May 97.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS LAUNCHER (C65900)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY96 OCT	FY96 NOV	FY96 DEC	FY96 JAN	FY96 FEB	FY96 MAR	FY96 APR	FY96 MAY	FY96 JUN	FY96 JUL	FY96 AUG	FY96 SEP	FY97 OCT	FY97 NOV	FY97 DEC	FY97 JAN	FY97 FEB	FY97 MAR	FY97 APR	FY97 MAY	FY97 JUN	FY97 JUL	FY97 AUG	FY97 SEP	LATER
							CY96	CY96	CY96	CY96	CY96	CY96	CY96	CY96	CY96	CY96	CY96	CY96	CY97	CY97	CY97	CY97	CY97	CY97	CY97	CY97	CY97	CY97	CY97	CY97	
Launcher M270	1	95 & Pr	A	772	690	82	4	6							17			9	7	3	8	3				4	1		2	1	17
	1	95 & Pr	NG	85	56	29			5	12	6				6															
	1	95 & Pr	FMS	108	57	51												6				5	2	4	5		3	4	6	4	12
	1	FY 96	FMS	20	0	20														5	1									14
	1	FY 97	FMS	29	0	29																								29
	1	FY98	FMS	18	0	18																								18
Launcher Remanufacture	2	FY 96	A	29	0	29											A		3		1	3	2			3	3	3	3	3	5
	2	FY 97	A	35	0	35														A											35
Launcher M270A1	3	FY 98	A	35	0	35																									35
	3	FY 99	A	24	0	24																									24
	3	FY 00	A	54	0	54																									54
	3	FY 01	A	71	0	71																									71
	3	FY 02	A	90	0	90																									90
	3	FY 03	A	140	0	140																									140
TOTAL				1510	803	707	4	6	5	12	6				23			15	10	8	10	11	4	4	5	7	7	7	11	8	544

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

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	ADMIN LEAD TIME After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		8	2		2
	REORDER		0	2		2
2	INITIAL		7	2		2
	REORDER		0	2		2
3	INITIAL		8	2	25	27
	REORDER		0	2	25	27
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

In FY 96, 9 launchers with deliveries beginning in Oct 96 were remanufactured at RRAD in support of NG requirements.

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS LAUNCHER (C65900)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 98 OCT	FY 98 NOV	FY 98 DEC	CY 98 JAN	CY 98 FEB	CY 98 MAR	CY 98 APR	CY 98 MAY	CY 98 JUN	CY 98 JUL	CY 98 AUG	CY 98 SEP	FY 99 OCT	FY 99 NOV	FY 99 DEC	CY 99 JAN	CY 99 FEB	CY 99 MAR	CY 99 APR	CY 99 MAY	CY 99 JUN	CY 99 JUL	CY 99 AUG	CY 99 SEP	LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Launcher M270	1	95 & Pr	A	772	755	17								3														3	3	3	5
	1	95 & Pr	NG	85	85																										
	1	95 & Pr	FMS	108	96	12	4	1		4	3																				
	1	FY 96	FMS	20	6	14	6	5								3															
	1	FY 97	FMS	29	0	29							3	3			1	3	3	3	3		1	1	3	2					
	1	FY 98	FMS	18	0	18																									18
Launcher Remanufacture	2	FY 96	A	29	24	5	3	2																							
	2	FY 97	A	35	0	35		2	3	3	3	3	3	3	3	3	3	3	3												
Launcher M270A1	3	FY 98	A	35	0	35						A																			35
	3	FY 99	A	24	0	24																A									24
	3	FY 00	A	54	0	54																									54
	3	FY 01	A	71	0	71																									71
	3	FY 02	A	90	0	90																									90
	3	FY 03	A	140	0	140																									140
TOTAL				1510	966	544	13	10	3	7	6	3	6	9	3	6	4	6	6	3	3	3		1	1	3	2	3	3	3	437

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

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		8	2		2
	REORDER		0	2		2
2	INITIAL		7	2		2
	REORDER		0	2		2
3	INITIAL		8	2	25	27
	REORDER		0	2	25	27
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

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

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS LAUNCHER (C65900)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00 / Calendar Year 00												Fiscal Year 01 / Calendar Year 01										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Launcher M270	1	95 & Pr	A	772	767	5	3	2																						
	1	95 & Pr	NG	85	85																									
	1	95 & Pr	FMS	108	108																									
	1	FY 96	FMS	20	20																									
	1	FY 97	FMS	29	29																									
	1	FY 98	FMS	18	0	18		1	3	3	2	2	2	2	2	1														
Launcher Remanufacture	2	FY 96	A	29	29																									
	2	FY 97	A	35	35																									
Launcher M270A1	3	FY 98	A	35	0	35							2	3	3	3	3	3	3	3	3	3	3	3							
	3	FY 99	A	24	0	24																			2	2	2	2	2	2	12
	3	FY 00	A	54	0	54																									54
	3	FY 01	A	71	0	71																									71
	3	FY 02	A	90	0	90																									90
	3	FY 03	A	140	0	140																									140
TOTAL				1510	1073	437	3	3	3	3	2	2	4	5	5	4	3	3	3	3	3	3	3	3	2	2	2	2	2	2	367

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

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		8	2		2
	REORDER		0	2		2
2	INITIAL		7	2		2
	REORDER		0	2		2
3	INITIAL		8	2	25	27
	REORDER		0	2	25	27
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS LAUNCHER (C65900)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY02 OCT	FY02 NOV	FY02 DEC	FY02 JAN	FY02 FEB	FY02 MAR	FY02 APR	FY02 MAY	FY02 JUN	FY02 JUL	FY02 AUG	FY02 SEP	FY03 OCT	FY03 NOV	FY03 DEC	FY03 JAN	FY03 FEB	FY03 MAR	FY03 APR	FY03 MAY	FY03 JUN	FY03 JUL	FY03 AUG	FY03 SEP	LATER
							Fiscal Year 02												Fiscal Year 03												
							Calendar Year 02												Calendar Year 03												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Launcher M270	1	95 & Pr	A	772	772																									
	1	95 & Pr	NG	85	85																									
	1	95 & Pr	FMS	108	108																									
	1	FY 96	FMS	20	20																									
	1	FY 97	FMS	29	29																									
	1	FY98	FMS	18	18																									
Launcher Remanufacture	2	FY 96	A	29	29																									
	2	FY 97	A	35	35																									
Launcher M270A1	3	FY 98	A	35	35																									
	3	FY 99	A	24	12	12	2	2	2	2	2	2																		
	3	FY 00	A	54	0	54							4	4	4	4	4	4	5	5	5	5	5	5							
	3	FY 01	A	71	0	71																			5	5	5	6	6	6	38
	3	FY 02	A	90	0	90																									90
	3	FY 03	A	140	0	140																									140
TOTAL				1510	1143	367	2	2	2	2	2	2	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	6	6	6	268

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

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	ADMIN LEAD TIME After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		8	2		2
	REORDER		0	2		2
2	INITIAL		7	2		2
	REORDER		0	2		2
3	INITIAL		8	2	25	27
	REORDER		0	2	25	27
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS LAUNCHER (C65900)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 04 / Calendar Year 04												Fiscal Year 05 / Calendar Year 05												LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Launcher M270	1	95 & Pr	A	772	772																									
	1	95 & Pr	NG	85	85																									
	1	95 & Pr	FMS	108	108																									
	1	FY 96	FMS	20	20																									
	1	FY 97	FMS	29	29																									
	1	FY 98	FMS	18	18																									
Launcher Remanufacture	2	FY 96	A	29	29																									
	2	FY 97	A	35	35																									
Launcher M270A1	3	FY 98	A	35	35																									
	3	FY 99	A	24	24																									
	3	FY 00	A	54	54																									
	3	FY 01	A	71	33	38	6	6	6	6	7	7																		
	3	FY 02	A	90	0	90							7	7	7	7	7	7	7	7	8	8	9	9						
	3	FY 03	A	140	0	140																			11	11	11	11	12	12	72
TOTAL				1510	1242	268	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	9	9	11	11	11	11	12	12	72

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

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		8	2		2
	REORDER		0	2		2
2	INITIAL		7	2		2
	REORDER		0	2		2
3	INITIAL		8	2	25	27
	REORDER		0	2	25	27
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: MLRS LAUNCHER (C65900)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 06 OCT	FY 06 NOV	FY 06 DEC	CY 06 JAN	CY 06 FEB	CY 06 MAR	CY 06 APR	CY 06 MAY	CY 06 JUN	CY 06 JUL	CY 06 AUG	CY 06 SEP	FY 07 OCT	FY 07 NOV	FY 07 DEC	CY 07 JAN	CY 07 FEB	CY 07 MAR	CY 07 APR	CY 07 MAY	CY 07 JUN	CY 07 JUL	CY 07 AUG	CY 07 SEP	LATER
Launcher M270	1	95 & Pr	A	772	772																									
	1	95 & Pr	NG	85	85																									
	1	95 & Pr	FMS	108	108																									
	1	FY 96	FMS	20	20																									
	1	FY 97	FMS	29	29																									
	1	FY 98	FMS	18	18																									
Launcher Remanufacture	2	FY 96	A	29	29																									
	2	FY 97	A	35	35																									
Launcher M270A1	3	FY 98	A	35	35																									
	3	FY 99	A	24	24																									
	3	FY 00	A	54	54																									
	3	FY 01	A	71	71																									
	3	FY 02	A	90	90																									
	3	FY 03	A	140	68	72	12	12	12	12	12	12																		
TOTAL				1510	1438	72	12	12	12	12	12	12																		

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

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		8	2		2
	REORDER		0	2		2
2	INITIAL		7	2		2
	REORDER		0	2		2
3	INITIAL		8	2	25	27
	REORDER		0	2	25	27
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

Exhibit P-43, Simulator and Training Device Justification

Date: February 1998

Appropriation / Budget Activity/Serial No.	P-1 Item Nomenclature	Other Related Program Elements:	IOC Date:
MISSILE PROCUREMENT / 2 / Other Missiles	MLRS LAUNCHER (C65900)		Mar-01

Training Device by Type	Site	Delivery Date	Ready for Training Date	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Maintenance	Redstone Arsenal, AL	Sep-00	Mar-01			2/$2000	2/$2000		2/$2000		

The MLRS Launcher Maintenance Trainer is used by the Ordnance Missile and Munitions Center and School (OMMCS) to provide training in troubleshooting and maintenance procedures for the MOS 27M. The trainer consists of a classroom station to provide computer controlled troubleshooting simulations, a Launcher Loader Module (LLM) mockup to provide hands-on maintenance training (remove/replace) and an Electronics Repair Station to provide training in Automated Test Equipment (ATE) and off-launcher repair. Trainer density increases with M270A1 fielding requirements.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

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

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty	1449	148	120	97	100	96	110	100				2220
Gross Cost	912.4	110.5	120.8	135.3	93.5	90.6	94.6	89.9	15.0	7.3	0.0	1669.9
Less PY Adv Proc	75.1											75.1
Plus CY Adv Proc	75.1											75.1
Net Proc (P-1)	912.4	110.5	120.8	135.3	93.5	90.6	94.6	89.9	15.0	7.3	0.0	1669.9
Initial Spares	2.3			1.0	0.9							4.2
Total Proc Cost	914.7	110.5	120.8	136.3	94.5	90.6	94.6	89.9	15.0	7.3	0.0	1674.1
Flyaway U/C	0.6	0.7	0.9	1.4	0.9	0.9	0.9	0.9				0.7
Wpn Sys Proc U/C	0.6	0.7	1.0	1.4	.9	.9	.9	.9				.8

DESCRIPTION: The Army TACMS is a ground-launched missile system consisting of a surface-to-surface guided missile with an anti-personnel anti-materiel (APAM) warhead. The Army TACMS Block IA integrates global positioning system (GPS) components and increases the range of the Block I missile. The inherent GPS accuracies will be achievable independent of range. Army TACMS missiles are fired from the Multiple Launch Rocket System (MLRS) modified M270 launcher and are being deployed within the ammunition loads of corps MLRS battalions and/or division artillery MLRS batteries. Army TACMS includes Guided Missile and Launching Assembly; Test Set, Guided Missile System; Training Set, Guided Missile System: M-165; Trainer, Test Device, Guided Missile: M70; Modified M270 Launcher; and the Army TACMS Missile Facilities (ATMF).

JUSTIFICATION: The Army TACMS is air transportable and provides a deep fire missile system that operates in near 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.
FY99 funds will buy 96 ATACMS Block 1A missiles. FY97 includes a $43.7M reprogramming; when approved the funding will buy an additional 60 missiles, raising the FY99 quantity to 157.

Exhibit P-5, Weapon Missiles Cost Analysis	Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Line Item Nomenclature: ATACMS SYSTEM SUMMARY (C98510)	Weapon System Type: Missile	Date: February 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Missile Hardware- Recurring													
Prime Contract *		74504	120	621	106638	97	1099	71600	100	716	68064	96	709
GFE								128			100		
Flight Kits		378			1682			1848			1850		
Engineering Services		16631			14806			4479			6500		
Engineering Change Orders (ECOs)		2206			906			869			568		
Fielding		579			110			550			200		
Subtotal Missile Hardware		94298			124142			79474			77282		
Procurement Support													
Project Management		5599			4412			4138			3820		
Production Engineering Support		8731			4607			5523			5114		
Test and Evaluation		4546			1811			3712			3579		
Subtotal Procurement Support		18876			10830			13373			12513		
TOTAL MISSILE FLYAWAY		113174			134972			92847			89795		
Command & Launch Integration													
Command & Launch Integration Spt		1343			339			690			790		
Subtotal C&L Integration		1343			339			690			790		
Support Cost													
Missile Test Device		2758											
ATMF Test and Support Equipment		3528											
Subtotal Support Cost		6286											
Gross P-1 End Cost		120803			135311			93537			90585		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		120803			135311			93537			90585		
PLUS P-1 CY Adv. Proc.													
Other Non P-1 Costs													
Initial Spares					963			943					
MODS													
TOTAL		120803			136274			94480			90585		

*FY97 advance proc ($43.735) awaiting congressional approval for transfer. Upon approval, transferred $ will procure 60 additional ATACMS msls.

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

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

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Army TACMS Block I Missile										
FY 96	LMVS, Dallas, TX	SS/FP	MICOM	Nov-95	Mar-97	50	664	Yes		
Army TACMS Block IA Missile										
FY 96	LMVS, Dallas, TX	SS/FP	MICOM	Jun-96	Aug-97	70	590	Yes		
FY 97	LMVS, Dallas, TX	SS/FP	MICOM	Apr-97	May-98	97	648	Yes		
FY 98	LMVS, Dallas, TX	SS/FP	MICOM	Apr-98	May-99	100	716	Yes		Sep-96
FY 99	LMVS, Dallas, TX	SS/FP	MICOM	Oct-98	Mar-00	96	709	Yes		Sep-96

REMARKS:
FY 98 buy LLTI award date - Dec 98

FY 1998 / FY 1999 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 96 OCT	FY 96 NOV	FY 96 DEC	CY 96 JAN	CY 96 FEB	CY 96 MAR	CY 96 APR	CY 96 MAY	CY 96 JUN	CY 96 JUL	CY 96 AUG	CY 96 SEP	FY 97 OCT	FY 97 NOV	FY 97 DEC	CY 97 JAN	CY 97 FEB	CY 97 MAR	CY 97 APR	CY 97 MAY	CY 97 JUN	CY 97 JUL	CY 97 AUG	CY 97 SEP	LATER
Army TACMS Block I Missile		94 & Pr	A	1449	1374	75	15	15	15	15	15																			
	1	FY 95	A	148	0	148						14	13	13	12	12	12	12	12	12	12	12								
	1	FY 96	A	50	0	50		A															10	10	10	10	10			
	1	FY 94	N	3	3																									
	1	FY 96	FMS	72	0	72									A													1		71
	1	FY 97	FMS	152	0	152																	A						A	152
Army TACMS Block IA Missile	1	FY 96	A	70	0	70									A													7	7	56
	1	FY 97	A	97	0	97																			A					97
	1	FY 98	A	100	0	100																								100
	1	FY 99	A	96	0	96																								96

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	FY 96												FY 97												
	CY 96												CY 97												

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

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

REMARKS

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

FY 1998 / FY 1999 BUDGET PRODUCTION SCHEDULE	P-1 Item Nomenclature: ARMY TACTICAL MSL SYS (ATACMS) - SYS SUM (C98510)	Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY98 OCT	FY98 NOV	FY98 DEC	CY98 JAN	CY98 FEB	CY98 MAR	CY98 APR	CY98 MAY	CY98 JUN	CY98 JUL	CY98 AUG	CY98 SEP	FY99 OCT	FY99 NOV	FY99 DEC	CY99 JAN	CY99 FEB	CY99 MAR	CY99 APR	CY99 MAY	CY99 JUN	CY99 JUL	CY99 AUG	CY99 SEP	LATER
Army TACMS Block I Missile		94 & Pr	A	1449	1449																										
	1	FY 95	A	148	148																										
	1	FY 96	A	50	50																										
	1	FY 94	N	3	3																										
	1	FY 96	FMS	72	1	71	6	11	10	11	11	11	11																		
	1	FY 97	FMS	152	0	152											6	8	15	15	15	15	12	12	12	8	10	7	7	5	5
Army TACMS Block IA Missile	1	FY 96	A	70	14	56	8	8	8	8	8	8	8																		
	1	FY 97	A	97	0	97								8	8	8	8	8	8	8	8	8	8	8	9						
	1	FY 98	A	100	0	100							A													10	10	10	10	10	50
	1	FY 99	A	96	0	96													A												96

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

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

REMARKS

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

FY 1998 / FY 1999 BUDGET PRODUCTION SCHEDULE

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

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00			Calendar Year 00									Fiscal Year 01			Calendar Year 01									LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Army TACMS Block I Missile		94 & Pr	A	1449	1449																										
	1	FY 95	A	148	148																										
	1	FY 96	A	50	50																										
	1	FY 94	N	3	3																										
	1	FY 96	FMS	72	72																										
	1	FY 97	FMS	152	147	5	5																								
Army TACMS Block IA Missile	1	FY 96	A	70	70																										
	1	FY 97	A	97	97																										
	1	FY 98	A	100	50	50	10	10	10	10	10																				
	1	FY 99	A	96	0	96						8	8	8	8	8	8	8	8	8	8	8	8								
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

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

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

REMARKS

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

Exhibit P-40, Budget Item Justification Sheet

Date: February 1998

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

P-1 Item Nomenclature: MLRS MODS (C67500)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	169.9	29.3	27.5	6.4	2.1	2.2	2.2	5.2	4.3	5.2	0.0	254.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	169.9	29.3	27.5	6.4	2.1	2.2	2.2	5.2	4.3	5.2	0.0	254.3
Initial Spares	9.4	1.3	2.1	1.8	1.0	0.6	0.5	0.9	0.9	0.9		19.3
Total Proc Cost	179.3	30.6	29.5	8.2	3.1	2.8	2.7	6.1	5.2	6.1	0.0	273.6
Flyaway U/C												
Wpn Sys Proc U/C												

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

JUSTIFICATION: The FY99 program funds a Fire Suppression Change, Interim Improved Position Determining System Launcher, and Obsolescence Mitigation/Engineering Change Proposal Reliability Integration.

Exhibit P-40M Budget Item Justification Sheet									Date: February 1998	
Appropriation / Budget Activity/Serial No.: MISSILE PROCUREMENT / 3 / Modification of Missles					P-1 Item Nomenclature: MLRS MODS (C67500)					
Program Elements for Code B Items			Code		Other Related Program Elements					
Description		Fiscal Years								
OSIP NO.	Classification	FY 96 & Pr	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
Improved Electronic Unit (IEU) (No P3a Set)											
1-84-03-0502		71.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0		71.6
Launcher Loader Module Improvements (LLM)											
1-85-03-0508		33.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0		33.5
Carrier Improvements Phase IV											
1-94-03-0520		3.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0		4.5
Transmission Electronic Controller (TEC)											
1-94-03-0522		26.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0		27.0
Fire Suppression Change											
1-94-03-0525		0.0	0.9	1.9	0.1	0.2	0.2	0.0	0.0		3.3
Interim IPDS Launcher											
1-94-03-0528		16.3	3.3	0.0	1.3	1.2	1.2	1.2	1.2		25.7
Interim MS Launcher (No P3a Set)											
1-94-03-0529		9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0		9.9
Hoist Carriage Assembly (No P3a Set)											
1-95-03-0530		2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0		2.7
Selective Availability Anti-Spoofing Module (SAASM) (No P3a Set)											
1-97-03-0534		0.0	0.0	0.0	0.0	0.4	2.9	0.0	0.0		3.3
JTA-A (No P3a Set)											
1-98-03-0537		0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.8		4.9
Obsolescence Mitigation/ECP Reliability Integration (No P3a Set)											
1-95-03-Obsc		3.3	0.7	0.2	0.8	0.4	0.9	1.0	1.2		8.5
Totals		167.3	6.4	2.1	2.2	2.2	5.2	4.3	5.2		194.9

INDIVIDUAL MODIFICATION Date February 1998

MODIFICATION TITLE: Launcher Loader Module Improvements (LLM) 1-85-03-0508

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

DESCRIPTION / JUSTIFICATION:

This modification retrofits fielded vehicles for the following: Adds new metal blast panels to prevent damage to front launcher cage structure and blast doors; installs new environmentally sealed limit switches; welds in stiffening plate to motor pump assembly; provides moisture tight cover to the azimuth resolver; and adds support lugs and welds and adds a reinforcement to the aft corner post. These improvements are required to correct operational deficiencies identified during Operational Test III and subsequent fielding. This modification accomplishes retrofit of the fielded vehicles as part of the Block Mod Effort in conjunction with the hoist improvement.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development complete - incorporated into current production.

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	433																				
Outputs	433																				

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		433
Outputs																		433

METHOD OF IMPLEMENTATION: Depot Field App ADMINISTRATIVE LEADTIME: PRODUCTION LEADTIME:

Contract Dates: FY 1997 FY 1998 FY 1999

Delivery Date: FY 1997 FY 1998 FY 1999

INDIVIDUAL MODIFICATION																		Date	February 1998	
MODIFICATION TITLE (Cont):	Launcher Loader Module (LLM) Improvements 1-85-03-0508																			
FINANCIAL PLAN: ($ in Millions)	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment	433	22.0																	433	22.0
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment				0.2																0.2
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	433	11.3																	433	11.3
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	433	11.3																	433	11.3
Total Procurement Cos		33.3		0.2																33.5

INDIVIDUAL MODIFICATION Date February 1998

MODIFICATION TITLE: Carrier Improvements Phase IV 1-94-03-0520

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

DESCRIPTION / JUSTIFICATION:

This modification is a consolidation of nine (9) Class I Engineering Change Proposals addressing reliability, availability, maintainability, and dependability (RAM-D). Improvements include the addition of a fuel system heater valve, improved cab ventilation duct system, speedor relocator, and a gas particulate filter unit plug for the nuclear biological chemical heater. This modification also corrects four (4) safety hazards by improving the commander's work station, adding a map light for tactical conditions, and provides measures to prevent the existing engine compartment fire extinguisher from being inadvertently discharged.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development complete - incorporated into current production.

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	706	75	70																		
Outputs	698	8			145																

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		851
Outputs																		851

METHOD OF IMPLEMENTATION: Depot Field App ADMINISTRATIVE LEADTIME: 8 Months PRODUCTION LEADTIME: 6 Months

Contract Dates: FY 1997 FY 1998 FY 1999

Delivery Date: FY 1997 FY 1998 FY 1999

INDIVIDUAL MODIFICATION																		Date	February 1998	
MODIFICATION TITLE (Cont):	Carrier Improvements Phase IV 1-94-03-0520																			
FINANCIAL PLAN: ($ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment	706	1.1	145	0.2															851	1.3
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	698	2.4	8																706	2.4
FY 1997 Eqpt -- Kits			145	0.8															145	0.8
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	698	2.4	153	0.8															851	3.2
Total Procurement Cos		3.5		1.0																4.5

INDIVIDUAL MODIFICATION — Date: February 1998

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. The equipment buy includes 100 spares.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development complete - incorporated into current production.

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	690	13																			
Outputs	590				13																

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		703
Outputs																		603

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

Contract Dates: FY 1997 — FY 1998 — FY 1999

Delivery Date: FY 1997 — FY 1998 — FY 1999

INDIVIDUAL MODIFICATION — Date: February 1998

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

FINANCIAL PLAN: ($ in Millions)

	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment	690	19.2	13	0.2															703	19.4
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	590	7.5																	590	7.5
FY 1997 Eqpt -- Kits			13	0.1															13	0.1
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	590	7.5	13	0.1															603	7.6
Total Procurement Cos		26.7		0.3																27.0

INDIVIDUAL MODIFICATION Date February 1998

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

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

DESCRIPTION / JUSTIFICATION:

The purpose of this modification is to comply with Department of Defense Directive 6050.9 for the elimination of chloroflurocarbons and halons. The objective of this modification is to identify and eliminate all ozone depleting chemicals and all ozone depleting substances. The initial phase of this program directs modification of mounting brackets to allow CO2 bottles to be used in lieu of the current 2.75 pound halon bottles. Swap-out for the hand-held bottles is being done by the U.S. Army Tank-Automotive and Armaments Command and began 2Q97. The second phase will direct the modification and/or conversion of the 7 pound engine compartment halon bottle to an alternative substance. FY97 buys hand-held fire extinguishers with a 4 month production lead time. FY98 buys fixed fire extinguishers with a 12 month production lead time.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Will be incorporated into production.

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs			100	300	457			100	100	100	100	100	100	100	100	69					
Outputs			4	70	301	209	138	79	56	49	9	9	20	112	112	82	59	157	135	125	

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		1726
Outputs																		1726

METHOD OF IMPLEMENTATION: Depot Field App ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 12 Months

Contract Dates: FY 1997 FY 1998 FY 1999

Delivery Date: FY 1997 FY 1998 FY 1999

INDIVIDUAL MODIFICATION																		Date	February 1998	
MODIFICATION TITLE (Cont):	Fire Suppression Change 1-94-03-0525																			
FINANCIAL PLAN: ($ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment			857	0.8	869	1.7													1726	2.5
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits			375	0.1	482	0.2													857	0.3
FY 1998 Eqpt -- Kits							87	0.1	365	0.2	417	0.2							869	0.5
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment			375	0.1	482	0.2	87	0.1	365	0.2	417	0.2							1726	0.8
Total Procurement Cos				0.9		1.9		0.1		0.2		0.2								3.3

INDIVIDUAL MODIFICATION — Date: February 1998

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

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

DESCRIPTION / JUSTIFICATION:

A special interim launcher configuration is required to allow the current M270 platform to fire all of its existing fielded M270 Family of Munitions and incorporate a new requirement to fire the Block IA, Army Tactical Missile System (TACMS). The Block IA missile will be fielded in 1QFY98 and will require Global Positioning System (GPS) interface at time of launch. This modification must be accelerated because the pre-planned product improvement for GPS was not planned until the fielding of the Position Navigational Unit with the Improved Fire Control System in FY 00. The modification will incorporate the IPDS Line Replaceable Unit, a GPS antenna, associated cabling with armor protection, hoist bumper pads, a modification to the existing M68 Missile/Launch Pod Assembly trainer, and sufficient Random Access Memory, with the Non Volatile Memory Module to support the software loaded into the Improved Electronic Unit.
Installation is included in the cost of the modification kit.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

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

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	29			6																	
Outputs							10	20	5												

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		35
Outputs																		35

METHOD OF IMPLEMENTATION: Contract — ADMINISTRATIVE LEADTIME: 6 Months — PRODUCTION LEADTIME: 12 Months

Contract Dates:	FY 1997	FY 1998	FY 1999
Delivery Date:	FY 1997	FY 1998	FY 1999

INDIVIDUAL MODIFICATION																		Date	February 1998	
MODIFICATION TITLE (Cont):	Interim Improved Position Determining System Launcher 1-94-03-0528																			
FINANCIAL PLAN: ($ in Millions)	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment	29	16.1	6	1.9															35	18.0
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support		0.2		1.4				1.3		1.2		1.2		1.2		1.2		1.2		8.9
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cos		16.3		3.3				1.3		1.2		1.2		1.2		1.2		1.2		26.9

INDIVIDUAL MODIFICATION Date February 1998

MODIFICATION TITLE: Obsolescence Mitigation/Engineering Change Proposal Reliability Integration 1-95-03-Obsc

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

DESCRIPTION / JUSTIFICATION:

Technology obsolescence is dictating the replacement of many launcher components. Because of rapid electronic obsolesence, this modification plans for future replacement of launcher electronic components. Circuit Cards in the Line Replaceable Units e.g., Improved Electronic Unit and Fire Control Unit, are already obsolete or rapidly approaching obsolescence. The funding on this program will procure modification kits which will incorporate improved components necessary to replace parts no longer available. In addition, this modificati reestablish the MLRS baseline at the optimal configuration for integration of Improvied Fire Control System and Improved Launcher Mechanical System (MC No. 0519 and 0526) by aiding in the calibration of the system, providing required accuracy levels for new and future munitions, increasing reliability of early configuration of the launcher which reduces operational and support costs, and eliminating noise and multiple software requirements. The removal of minimal or poor performance components that have been identified is considered necessary to assure configuration control and compatibility within technical interfac

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Will incorporate ongoing obsolescence analysis and determination into production.

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2002				FY 2003				FY 2004				FY 2005				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

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

Contract Dates:	FY 1997	FY 1998	FY 1999
Delivery Date:	FY 1997	FY 1998	FY 1999

INDIVIDUAL MODIFICATION Date ####### P3a Templates exist.

MODIFICATION TITLE (Cont): Obsolescence Mitigation/Engineering Change Proposal Reliability Integration 1-95-03-Obsc

FINANCIAL PLAN: ($ in Millions)

	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		3.3		0.7		0.2		0.8		0.2		0.7		1.0		1.2		28.4		36.5
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment										0.2		0.2								0.4
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cos		3.3		0.7		0.2		0.8		0.4		0.9		1.0		1.2		28.4		36.9

Exhibit P-40, Budget Item Justification Sheet												Date: February 1998
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles						P-1 Item Nomenclature: ATACMS/BAT (CA6101)						
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty						30	80	130	115	190	1261	1806
Gross Cost	0.0	0.0	0.0	0.0	0.0	49.1	66.7	98.8	106.2	174.4	1028.5	1523.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	49.1	66.7	98.8	106.2	174.4	1028.5	1523.6
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	49.1	66.7	98.8	106.2	174.4	1028.5	1523.6
Flyaway U/C						1.4	0.8	0.8	0.9	0.9	0.8	0.8
Wpn Sys Proc U/C						1.6	.8	.8	.9	.9	.8	.8

DESCRIPTION: The Army Tactical Missile System Block II (ATACMS BLK II), a version of the currently fielded and combat-proven Army TACMS Block I missile, will be a ground launched, solid propellant, inertially guided (Global Positioning System (GPS) aided) missile system with 13 BATs or P3I BATs as its payload. It will be launched from the Multiple Launch Rocket System (MLRS) modified M270A1 launcher and will be deployed within the ammunition loads of corps MLRS battalions and/or division artillery MLRS batteries. The Army TACMS Block IIA (ATACMS Block IIA) will carry 6 BAT P3I submunitions as its payload rather than 12, extending the range. The ATACMS Block IIA will be launched from the M270A1 launcher in response to the same Command and Control (C2) nodes applicable to the Block I, Block IA, and Block II missiles. Since the Block IIA payload only houses 6 submunitions rather than 13, as in the Block II, it is capable of achieving extended ranges comparable to the Block IA. Production funding for the ATACMS Block IIA begins in FY02 for procurement of long lead items.

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

Exhibit P-5, Weapon Missiles Cost Analysis	Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Line Item Nomenclature: ATACMS/BAT (CA6101)	Weapon System Type: Missile	Date: February 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Missile Hardware- Recurring													
Prime Contract (Includes Initial Prod Fac)											26979	30	899
Flight Kits											3254		
Engineering Services											567		
Engineering Change Orders (ECOs)											856		
Fielding											394		
Subtotal Missile Hardware											32050		
Procurement Support													
Project Management											1661		
Production Engineering Support											1985		
Test and Evaluation											6428		
Subtotal Procurement Support											10074		
TOTAL MISSILE FLYAWAY											42124		
Command & Launch Integration													
Command & Launch Integration Spt											804		
Subtotal C&L Integration											804		
Support Cost													
Missile Test Device											2560		
Army Tac Msl Fac Test & Spt Equipment											3595		
Subtotal Support Cost											6155		
Gross P-1 End Cost											49083		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost											49083		
PLUS P-1 CY Adv. Proc.													
Other Non P-1 Costs													
Initial Spares													
MODS													
TOTAL											49083		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles	Missile	ATACMS BLK II (CA6105)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
ATACMS BLK II										
FY 99	LMVS, Dallas, TX	SS/FP	MICOM	Jan-99	Dec-00	30	899	No		Apr-98

REMARKS:

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: ATACMS BLK II (CA6105)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 96												Fiscal Year 97												LATER
										Calendar Year 96												Calendar Year 97									
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
ATACMS BLK II	1	FY 99	A	30	0	30																									30

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

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	ADMIN LEAD TIME After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL		6	18	24
	REORDER				

REMARKS

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

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: ATACMS BLK II (CA6105)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98												Fiscal Year 99										LATER
										Calendar Year 98														Calendar Year 99									
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
ATACMS BLK II	1	FY 99	A	30	0	30																A								30
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

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

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL			6	18	24
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

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

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: ATACMS BLK II (CA6105)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01										LATER
							Calendar Year 00												Calendar Year 01										
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
ATACMS BLK II	1	FY 99	A	30	0	30															2	2	2	3	4	4	4	4	5		

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

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

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL			6	18	24
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

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

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: ATACMS BLK II (CA6105)

Date: February 1998

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

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

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL			6	18	24
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

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

Exhibit P-40, Budget Item Justification Sheet												Date: February 1998
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles						P-1 Item Nomenclature: BAT (CA6100)						
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty						420	1050	1700	1820	2400	12310	19700
Gross Cost	0.0	0.0	0.0	0.0	0.0	100.4	156.4	204.9	187.7	225.2	989.6	1864.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	100.4	156.4	204.9	187.7	225.2	989.6	1864.3
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	100.4	156.4	204.9	187.7	225.2	989.6	1864.3
Flyaway U/C						0.2	0.1	0.1	0.1	0.1	0.1	0.1
Wpn Sys Proc U/C						.2	.1	.1	.1	.1	.1	.1

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

JUSTIFICATION: The BAT submunition will be carried deep into enemy territory by the Army Tactical Missile System (ATACMS) Block II. It will be dispensed over numerous high-payoff targets to selectively attack and destroy individual targets. By utilizing acoustic technology, BAT has the advantage of a large footprint which allows it to compensate for target location errors.

Note: BAT is in LRIP in FY99.

Exhibit P-5, Weapon Missiles Cost Analysis	Appropriation/ Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles	P-1 Line Item Nomenclature: BAT (CA6100)	Weapon System Type: Submunition	Date: February 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Missile Hardware- Recurring													
Prime Contract (Includes Initial Prod. Facil.)											88341	420	210
Engineering Services													
Engineering Change Orders (ECOs)											1930		
Fielding													
Subtotal Missile Hardware											90271		
Procurement Support													
Project Management											3943		
Production Engineering Support											4929		
Test and Evaluation											1282		
Subtotal Procurement Support											10154		
TOTAL MISSILE FLYAWAY											100425		
Support Cost													
Subtotal Support Cost													
Gross P-1 End Cost											100425		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost											100425		
PLUS P-1 CY Adv. Proc.													
Other Non P-1 Costs													
Initial Spares													
MODS													
TOTAL											100425		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

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

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
BAT										
FY 99	Northrop Grumman Hawthorne, CA	SS/FPI	MICOM	Jan-99	Jun-00	420	210	Yes		Apr-98

REMARKS:

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: BAT (CA6100)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 96												Fiscal Year 97												LATER
										Calendar Year 96												Calendar Year 97									
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
BAT	1	FY 99	A	420	0	420																									420

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	NORTHROP GRUMMAN CORP, Hawthorne, CA	120	240	600	12

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

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: BAT (CA6100)

Date: February 1998

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

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	NORTHROP GRUMMAN CORP, Hawthorne, CA	120	240	600	12

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

REMARKS

FY 98 / 99 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: BAT (CA6100)

Date: February 1998

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

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

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +	MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
1	NORTHROP GRUMMAN CORP, Hawthorne, CA	120	240	600	12	1	INITIAL		2	16	18	
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					

Exhibit P-40, Budget Item Justification Sheet												Date: February 1998
Appropriation / Budget Activity/Serial No: MISSILE PROCUREMENT / 2 / Other Missiles						P-1 Item Nomenclature: AVENGER SYSTEM SUMMARY (C14900)						
Program Elements for Code B Items:				Code: A		Other Related Program Elements: C16000 AVENGER PEDESTAL MOUNTED STINGER, C15200 AVENGER TRAINING DEVICES, CE8710 AVENGER MODS						
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty	773			93		19	19	22	22	21		969
Gross Cost	838.2	62.5	30.5	62.4	7.2	35.3	35.1	35.0	34.8	34.7	0.0	1175.7
Less PY Adv Proc	90.4	32.5										122.9
Plus CY Adv Proc	122.9											122.9
Net Proc (P-1)	870.7	30.0	30.5	62.4	7.2	35.3	35.1	35.0	34.8	34.7	0.0	1175.7
Initial Spares	56.4	4.5										60.9
Total Proc Cost	927.1	34.5	30.5	62.4	7.2	35.3	35.1	35.0	34.8	34.7	0.0	1236.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The AVENGER System is a lightweight, highly mobile/transportable surface-to-air missile/gun weapon system mounted on a High Mobility Multi-purpose Wheeled Vehicle (HMMWV). It is operated by a two man crew for defense against helicopters and fixed wing aircraft at low altitude, day or night, and in clear or adverse weather. The system incorporates an operator's position with controls, displays, fire control electronics, and the Standard Vehicle Mounted Launcher (SVML). The SVML includes seeker coolant bottles and related hardware and it supports and launches multiple STINGER missiles. The SVML provides output signals that can be used to display to the gunner exactly where the STINGER is pointed. The driven sight reticule capability aids the gunner in severe background clutter and Electro-magnetic Counter Measure (ECM) environments. The system operates with standard unmodified Basic STINGER, STINGER-POST or STINGER-RMP missiles rounds, and the high rate of fire .50 CAL machine gun. AVENGER fills the Line-of-Sight Rear (LOS-R) role in Forward Area Air Defense Systems (FAADS).

A five year multiyear procurement (MYP) contract for AVENGER began in FY 91. In 1994, Congress agreed to a provision in the FY96 budget that would grant a one year extension, at no additional cost, for extending the delivery schedule of AVENGER multiyear procurement authority so the Marine Corps and other services could take advantage of the Army's contract and favorable pricing terms. The Avenger program received funds in FY 97 to procure the remainder of the multi-year procurement (93 fire units). Additional Fire Units have been funded in FY 00-07 for National Guard requirement. Intent is to field 16 Battalions and 17 enhanced brigades with ANG.

JUSTIFICATION:

AVENGER constitutes the Line-Of-Sight Rear (LOS-R) component of the Forward Area Air Defense System (FAADS), and it is the first FAADS element fielded.

NOTE: Congress appropriated $7.2M in FY 98 on the Avenger System which belongs on Avenger Mods. Specifics for this $7.2M shown on P-forms for CE8710, line number 14.

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 1998

Missiles Cost Elements	ID CD	FY 96			FY 97			FY 98			FY 99		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Hardware- Recurring													
Drive Hardware					35208	93	379				20631	19	1086
Turrent Assembly Army													
Unapplied EOQ													
EOQ Diverted to USMC													
Command & Launch Hardware													
Std Veh Mtd Launcher (SMVL) Army					8823	93	165				3639	19	192
Other GFE-Army Only											2245		
Other (HMMWV)					4669	93	50				1013	19	53
SubTotal Hardware					**48700**						**27528**		
Total Driveaway					**48700**						**27528**		
Support Cost													
Peculiar Support Equipment		2115			3304						2109		
Training Equipment		14959			319								
Contractor Engineering		2726			4953								
Government Engineering		2020			4560						1018		
Interim Contractor Support		2015									2198		
Fielding		6261									2416		
Other (Project Mgt Admin)		436			519								
SubTotal Support Cost		**30532**			**13655**						**7741**		
Gross P-1 End Cost		30532			62355						35269		
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		30532			62355						35269		
PLUS P-1 CY Adv. Proc.													
Other Non P-1 Costs													
Initial Spares													
MODS		987						7200			8425		
TOTAL		**31519**			**62355**			**7200**			**43694**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1998

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
MISSILE PROCUREMENT / 2 / Other Missiles		AVENGER (PED MT STINGER) (MYP) (C16000)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY 97	Boeing Aerospace Huntsville, AL	SSM-6/FP	MICOM	Dec-96	May-97	93	379	yes		
FY 99	Boeing Aerospace Huntsville,AL	SS/FP	MICOM	Dec-98	Mar-99	20	975	yes		

REMARKS:

FY 1998 / FY 1999 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: AVENGER SYSTEM SUMMARY (C16000)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY97 OCT	FY97 NOV	FY97 DEC	FY98 JAN	FY98 FEB	FY98 MAR	FY98 APR	FY98 MAY	FY98 JUN	FY98 JUL	FY98 AUG	FY98 SEP	FY98 OCT	FY98 NOV	FY98 DEC	FY99 JAN	FY99 FEB	FY99 MAR	FY99 APR	FY99 MAY	FY99 JUN	FY99 JUL	FY99 AUG	FY99 SEP	LATER
							Fiscal Year 97												Fiscal Year 98												
							Calendar Year 97												Calendar Year 98												
AVENGER	1	95&pr	A	773	773																									
	1	95&pr	MC	138	59	79	10	10	10	10	10	10	10	9																
	1	97	A	93	0	93			A					1	10	10	10	10	10	10	10	10	2							
	1	99	A	20																										20

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

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	0	2	4	6
	REORDER	1	1	4	5
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

FY 1998 / FY 1999 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: AVENGER SYSTEM SUMMARY (C16000)

Date: February 1998

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY98 OCT	FY98 NOV	FY98 DEC	CY98 JAN	CY98 FEB	CY98 MAR	CY98 APR	CY98 MAY	CY98 JUN	CY98 JUL	CY98 AUG	CY98 SEP	FY99 OCT	FY99 NOV	FY99 DEC	CY99 JAN	CY99 FEB	CY99 MAR	CY99 APR	CY99 MAY	CY99 JUN	CY99 JUL	CY99 AUG	CY99 SEP	LATER
AVENGER	1	95&pr	A	773	773																										
	1	95&pr	MC	138	138																										
	1	97	A	93	93		10	10	10	10	10	2																			
	1	99	A	20	0	20															A			1	3	3	3	3	3	4	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +	MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	Boeing Aerospace, Huntsville, Al	3	12	40	15		INITIAL	0	2	4	6
							REORDER	1	1	4	5
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				

REMARKS

Exhibit P-43, Simulator and Training Device Justification

Date: February 1998

Appropriation / Budget Activity/Serial No.	P-1 Item Nomenclature	Other Related Program Elements:	IOC Date:
MISSILE PROCUREMENT / 2 / Other Missiles	AVENGER TRAINING DEVICES (C15200)	C14900,C16000,CE8710	3QTR88

Training Device by Type	Site	Delivery Date	Ready for Training Date	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
ICOFT	Ft Bliss, TX	FY 97	FY 97	8190	5506						
FOFT	NTC/Ranges	FY 97	Jan-00	6769	997						

Description: The training devices being procured and supported for the AVENGER Air Defense Weapon System are essential to establish adequate and cost effective initial entry and sustainment training programs for the AVENGER operators and maintainers.

Justification: This training device program will put in place Institutional Conduct of Trainers (ICOFT) at Ft. Bliss, Texas for operator and leadership training. The Force-on-Force Trainers (FOFT) will support the operator in a field enviroment for collective training.