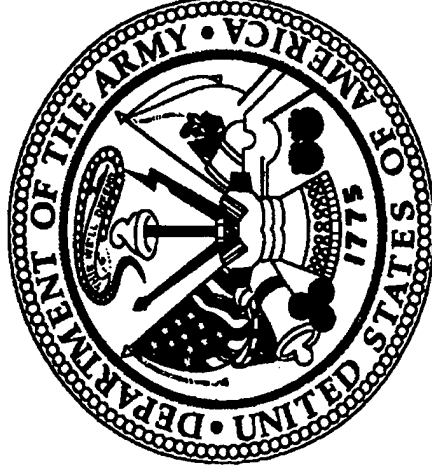


DEPARTMENT OF THE ARMY

Procurement Programs



DTIC QUALITY INSPECTED 2

Committee Staff Procurement Backup Book
FY 1999 Amended Budget Estimates

WEAPONS AND TRACKED COMBAT VEHICLES

APPROPRIATION

February 1998

19980305 024

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

Index for WEAPONS AND TRACKED COMBAT VEHICLES

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Index for WEAPONS AND TRACKED COMBAT VEHICLES

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	COMPARISON OF PROGRAM & FINANCING			

Appropriation: **WEAPONS & TRACKED COMBAT VEHICLES**

Activity: 1. **TRACKED COMBAT VEHICLES**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 99 UNIT COST	(Thousands of Dollars)					
				FY 97			FY 98		
				QTY (5)	COST (6)		QTY (7)	COST (8)	
(1)	(2)	(3)	(4)	(5)	(6)		(7)	(8)	(9)
	TRACKED COMBAT VEHICLES								
1	ABRAMS TRNG DEV MOD (GA5208)				3,170			2,176	8,536
2	BRADLEY BASE SUSTAINMENT (G80718)	B			250,920			231,043	285,844
3	BRADLEY FVS TRAINING DEVICES (G20900)	A			571				12,728
4	HAB TRAINING DEVICES (G84600)								386
5	BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500)	A			848				2,075
6	FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100)	A		48	58,314		36	39,179	
7	ABRAMS TANK TRAINING DEVICES (GB1300)	A			12,546			13,076	13,411
8	COMMAND & CONTROL VEHICLE (G84200)	B	4,424,100	5	48,766		5	30,262	44,241
	SUB-ACTIVITY TOTAL				375,135			315,736	367,221
	MODIFICATION OF TRACKED COMBAT VEHICLES								
9	CARRIER, MOD (GB1930)	A			44,717			39,418	54,454
10	FIST VEHICLE (MOD) (GZ2300)	B						15,595	20,720
11	BFVS SERIES (MOD) (GZ2400)	A			113,618			59,974	58,998

Appropriation: **WEAPONS & TRACKED COMBAT VEHICLES**

Activity: 1. **TRACKED COMBAT VEHICLES**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 99 UNIT COST	(Thousands of Dollars)					
				FY 97			FY 98		
				QTY	COST	(5)	QTY	COST	(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
12	HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400)	A			95,410		72,784		11,339
13	HOWITZER, MED SP FT 155MM M109A5 (MOD) (GA0401)	A			130				
14	FAASV PIP TO FLEET (GA8010)	A			23,510		1,883		3,157
15	IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570)	A			55,529		31,922		38,175
16	HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)	B			51,401		41,311		50,401
17	ARMORED VEH LAUNCH BRIDGE (AVLB) (MOD) (GZ3000)	A							969
18	M1 ABRAMS TANK (MOD) (GA0700)	A			62,934		29,230		53,301
19	ABRAMS UPGRADE PROGRAM (GA0750) LESS: ADVANCE PROCUREMENT (PY)	A			501,046 -297,218		586,799 -258,171		666,195 -253,534
					203,828		328,628		412,661
20	ABRAMS UPGRADE PROGRAM (GA0750) ADVANCE PROCUREMENT (CY)				258,171		253,534		262,942
21	MODIFICATIONS LESS THAN \$2.0M (TCV-WTCV) (GA0925)						1,009		
	SUB-ACTIVITY TOTAL				909,248		875,288		967,117

DEPARTMENT OF THE ARMY
FY 99 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1998

Appropriation: **WEAPONS & TRACKED COMBAT VEHICLES**

Activity: 1. ***TRACKED COMBAT VEHICLES**

LINE NO.	ITEM NOMENCLATURE	ID	(DOL\$) FY 99 UNIT COST	(Thousands of Dollars)					
				FY 97			FY 98		
				QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	SUPPORT EQUIPMENT AND FACILITIES								
22	ITEMS LESS THAN \$2.0M (TCV-WTCV) (GL3100)				11		136		132
23	PRODUCTION BASE SUPPORT (TCV-WTCV) (GA0050)				9,286		8,758		8,861
24	REGIONAL MAINTENANCE TRAINING SITES-EQUIP (GA2449)				1,362				
	SUB-ACTIVITY TOTAL				10,659		8,894		8,993
	ACTIVITY TOTAL				1,295,042		1,199,918		1,343,331

DEPARTMENT OF THE ARMY
FY 99 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1998

Appropriation: **WEAPONS & TRACKED COMBAT VEHICLES**

Activity: 2. **WEAPONS AND OTHER COMBAT VEHICLES**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 99 UNIT COST	(Thousands of Dollars)					
				FY 97			FY 98		
				QTY (5)	COST (6)	QTY (7)	COST (8)	QTY (9)	COST (10)
(1)	(2)	(3)	(4)						
	WEAPONS AND OTHER COMBAT VEHICLES								
25	ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000)	A	9,652	2,034	20,291	1,500	14,692	673	6,496
26	MACHINE GUN, 5.56MM (SAW) (G12900)	A	2,946	3,802	12,050	406	5,455	1,525	4,494
27	GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400)	A	17,490	2,150	32,972	400	7,835	697	12,191
28	M16 RIFLE (G14900)	A	425	15,583	6,523	11,297	4,984	16,067	6,829
29	5.56 CARBINE M4 (G14904)	A	670	10,603	6,523	7,484	4,984	6,310	4,230
	SUB-ACTIVITY TOTAL				76,359		37,950		34,240
	MODIFICATION OF WEAPONS AND OTHER COMBAT VEHICLES								
30	M4 CARBINE MODS (GB3007)	A			4,494		4,886		5,149
31	M119 MODIFICATIONS (GC0401)	A					4,875		4,812
32	M16 RIFLE MODS (GZ2800)	A			4,907		4,669		6,241
33	MODIFICATIONS LESS THAN \$2.0M (WOCV-WTCV) (GC0925)				627		1,378		1,128
	SUB-ACTIVITY TOTAL				10,028		15,808		17,330

DEPARTMENT OF THE ARMY
FY 99 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1998

Appropriation: **WEAPONS & TRACKED COMBAT VEHICLES**

Activity: 2. **WEAPONS AND OTHER COMBAT VEHICLES**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 99 UNIT COST	(Thousands of Dollars)					
				FY 97			FY 98		
				QTY	COST	(5)	QTY	COST	(10)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	SUPPORT EQUIPMENT AND FACILITIES								
34	ITEMS LESS THAN \$2.0M (WOCV-WTCV) (GL3200)				899		1,190		1,164
35	PRODUCTION BASE SUPPORT (WOCV-WTCV) (GC0050)				4,296		6,067		5,140
36	INDUSTRIAL PREPAREDNESS (GC0075)				5,068		5,640		3,959
37	SMALL ARMS (SOLDIER ENH PROG) (GC0076)				5,338		4,093		5,233
38	CLOSED ACCOUNT ADJUSTMENTS (GC9500)				142				
	SUB-ACTIVITY TOTAL				15,743		16,990		15,496
	ACTIVITY TOTAL				104,130		70,748		67,066

Appropriation: **WEAPONS & TRACKED COMBAT VEHICLES**

Activity: 3. **SPARES AND REPAIR PARTS**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 99 UNIT COST	(Thousands of Dollars)					
				FY 97			FY 98		
				QTY	COST	(5)	QTY	COST	(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	SPARES AND REPAIR PARTS								
39	SPARES AND REPAIR PARTS (WTCV) (GE0150)				19,883		20,199		23,211
	SUB-ACTIVITY TOTAL				19,883		20,199		23,211
	ACTIVITY TOTAL				19,883		20,199		23,211
	APPROPRIATION TOTAL				1,419,055		1,290,865		1,433,608

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)

System/Modification	Prior	1997	1998	1999	2000	2001	2002	2003	Complete	To	Total Program
ABRAMS TRNG DEV MOD (GA5208)											
M60A3 to M1 Conversion Kits	5.4										5.4
OIP Modification to M1A1 COFTs	2.1										2.1
AEI	1.7										1.7
M1 to M1A1 Modification Kits	2.2	0.4									2.6
Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer R		2.8	2.2	4.1	0.8	0.8	0.8	0.8	4.3		16.6
AGTS/SEP Mod						0.6	2.4	2.4	6.0		11.4
Tank Driver Trainer Mod (M1A2 SEP Upgrade)				4.2	1.4			0.5			6.1
Close Combat Tactical Trainer (CCTT)/SEP Mod					0.2	0.9	2.5	2.0	2.7		8.3
Maintenance Training System (MTS) SEP Mod				0.2	0.3	3.2					3.7
Total	11.4	3.2	2.2	8.5	2.7	5.5	5.7	5.7	13.0		57.9
BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500)											
Software Upgrades		0.8		2.1	4.4	4.8					12.1
Total	0.8	0.8	2.1	2.1	4.4	4.8					12.1
CARRIER, MOD (GB1930)											
Crew Chemical Protection	0.5	1.0	1.0	0.9	0.7	0.7	1.0	1.0	21.2		28.0
Block 1	276.9	43.7	38.4	53.6	58.7	52.9	72.6	85.1	795.1		1477.0
Total	277.4	44.7	39.4	54.5	59.4	53.6	73.6	86.1	816.3		1505.0
BFVS SERIES (MOD) (GZ2400)											
A1-A2 Conversion	347.3	16.4	16.8	13.6							394.1
A2 ODS Mods	67.2	49.6	28.9	31.9	1.6						179.2
Transmission Electronic Controller (TEC)	5.8	4.1	3.6								13.5
ACU Pillow Block Mod	5.8	0.9	0.6								7.2
Vehicle Intercom System	8.4	3.0	3.9								15.3
DECA	11.5	5.7	1.4	2.5							21.1
HALON Replacement	3.7	0.6	4.7	0.1	0.1						9.2

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)									
System/Modification	1996 & Prior	1997	1998	1999	2000	2001	2002	2003	To Complete Program
Armor Tiles									73.3
A2 Card Retrofit	40.6	32.7							0.8
Suite of Survivability Enhancement Systems		0.8							19.0
A2 ODS Applique				10.9		7.4	4.0	7.6	10.9
Total	490.3	113.6	60.0	59.0	1.7	7.4	4.0	7.6	743.6
HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400)									
Howitzer Improvement Program	1207.4	95.4	66.5	11.3	9.1	5.5	0.1		1395.3
Chlorofluorocarbon (CFC) Elimination			6.3						9.5
Total	1207.4	95.4	72.8	11.3	9.1	5.5	0.1		1411.1
FAASV PIP TO FLEET (GA8010)									
FAASV Materiel Change (A2 Conversion)	72.5	22.5	0.1	2.9	0.1		18.7		116.8
FAASV Halon Replacement	0.4	1.0	1.8	0.3					8.1
Total	72.9	23.5	1.9	3.2	0.1		18.7		124.9
ARMORED VEH LAUNCH BRIDGE (AVLB) (MOD) (GZ3000)									
AVLB 70 Block MOD				1.0	1.3	1.7			4.0
Total				1.0	1.3	1.7			4.0
M1 ABRAMS TANK (MOD) (GA0700)									
Halon Replacement (HAR) [MOD 1]	7.4	1.5	2.0	5.3	6.5	6.6	6.8	5.7	47.4
Driver's Hatch Interlock (DHI) [MOD 2]		20.4	6.5	5.8	4.9				39.8
Vehicle Intercommunications System (VIS) [MOD 3]	27.0	6.6	6.0	5.3	0.7				4.5
Armament Enhancement Initiative (AEI) [MOD 4]	60.1	0.4							50.1
Precision Lightweight GPS Receiver (PLGR) [MOD 5]	0.4		0.5	0.6	0.6	0.6	0.6	0.6	60.5
Live Fire Category A (LFCA) [MOD 6]	14.5	5.3	3.5	3.5	3.5	3.3	2.9	2.5	17.3
Battlefield Override (BF/OR) [MOD 7]	13.7	2.7	2.1	4.2	1.1	0.8	0.6	0.3	39.3
Live Fire Category B (LFCB) [MOD 8]	2.4	1.8	0.8	0.8	0.8	0.7	0.7	0.6	25.5
									8.6

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)

System/Modification	1996 & Prior	1997	1998	1999	2000	2001	2002	2003	To Complete	Total Program
Driver's Viewer Quick Release (DVQR) [MOD 9]	0.3	0.2	0.3	0.3	0.2					1.3
Pulse - Jet System (PJS) [MOD 10]	29.0	6.7	3.5	2.4	1.5				296.9	340.0
Mounted Water Ration Heater (MWRH) [MOD 11]	1.9	0.1	0.1							2.1
System Enhancement Package (SEP) [MOD 12]					2.9	46.5	82.8	107.4	655.5	895.1
Embedded Battle Command (EBC) [MOD 13]					1.0	1.0	1.1	1.0	5.5	9.6
External Auxiliary Pwr Unit (EAPU) [MOD 14]		8.0	2.0						40.8	50.8
External Auxiliary Pwr Unit Upgrade (EAPUU) [MOD 15]	2.4									2.4
NBC Fire Warning (NBCFW) [MOD 16]				4.1	3.3	0.4			5.3	13.1
Hand-Held Fire Extinguisher (HHFE) [MOD 17]					1.8					1.8
M1A2 Field Mods (A2FM) [MOD 18]		1.4	0.9	0.2	1.0	2.0	1.0	1.2	6.0	13.7
Matrix Support (MXSP) [MOD 19]		0.5	0.5	0.5	0.6	0.6	0.6	0.6	3.4	7.3
Prior Year Mod Installation (PYMI) [MOD 20]	65.0	4.9	0.5							70.4
M1A1-D Integration Kit [MOD 21]				20.3					271.4	291.7
Total	221.7	62.9	29.2	53.3	30.4	62.5	97.1	119.9	1348.4	2025.4
M4 CARBINE MODS (GB3007)										
Close Combat Optics (M4 Carbine)	0.9	3.1	1.1	2.6	5.4					13.1
M203 for M4 Carbine		0.4								0.4
Modular Weapon System (M4 Carbine)		1.0	3.1	1.1						5.2
M4 Improved Buttstock			0.7	1.4						2.1
Total	0.9	4.5	4.9	5.1	5.4					20.8
M119 MODIFICATIONS (GC0401)										
Block 1 Upgrade			4.9	4.8	2.9	0.3				12.8
Block 2 Upgrade						2.9			13.9	16.8
Total			4.9	4.8	2.9	3.2			13.9	29.6
M16 RIFLE MODS (GZ2800)										
Modular Weapon System (M16/M203)		2.9	1.5	4.5						8.9

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)

<u>System/Modification</u>	1996 &	<u>Prior</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>Complete</u>	To	Total
Close Combat Optics (M16)		2.8	2.0	3.1	1.7							9.6
Total		2.8	4.9	4.7	6.2							18.6
MODIFICATIONS LESS THAN \$2.0M (WOCV-WTCV) (GC0925)												
M198 Howitzer System Improvement		13.8	0.6									14.5
Machine Gun Optics				1.3	1.1	1.0	1.0	1.3	1.3			7.1
Total		13.8	0.6	1.3	1.1	1.0	1.0	1.3	1.3			21.5
Grand Total		2298.5	354.1	221.3	210.3	118.4	145.2	200.5	220.6	2205.7		5974.6

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles												ABRAMS TRNG DEV MOD (GA5208)	
Program Elements for Code B Items:												Other Related Program Elements:	
Code:													
	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	14.2	1.0	3.0	3.2	2.2	8.5	2.7	5.5	5.7	5.7	13.0	64.6	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	14.2	1.0	3.0	3.2	2.2	8.5	2.7	5.5	5.7	5.7	13.0	64.6	
Initial Spares													
Total Proc Cost	14.2	1.0	3.0	3.2	2.2	8.5	2.7	5.5	5.7	5.7	13.0	64.6	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: Funding provided will accomplish modifications to Abrams Training Devices required as a result of changes to the Abrams tanks or tank training requirements. These changes are hardware and software modifications to existing equipment to keep simulators abreast of developments in the Abrams Tank System.

JUSTIFICATION: The program reflected here-in is structured to meet needs validated by the Abrams user community. Degradation of tank training will occur if these modifications are delayed or deleted. The intended sites for the Conduct of Fire Trainer (COFT) M60A3 to M1 Conversions are for the National Guard units. The average expected gunner and commander throughput per year for the modified COFT is 3,016. The Conduct of Fire Trainer (COFT) M1 to M1A1, Optical Improvement (OIP) and Armament Enhancement Initiative (AEI) modifications are for units at FORSCOM, USAREUR, TRADOC, and National Guard.

Exhibit P-40M Budget Item Justification Sheet													
Appropriation / Budget Activity/Serial No.				Date									
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles				February 1998									
Program Elements for Code B Items				P-1 Item Nomenclature									
				ABRAMS TRNG DEV MOD (GA5208)									
				Other Related Program Elements									
				Code									
Description				Fiscal Years									
OSIP NO.	Classification			FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
M60A3 to M1 Conversion Kits													
1-03-05-4430	Operational			5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
OIP Modification to M1A1 COFTs													
1-90-05-7877	Operational			2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
AEI													
1-93-05-4452	Operational			1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
M1 to M1A1 Modification Kits													
1-92-06-4419	Operational			2.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Rehost													
1-97-05-4526	Operational			0.0	2.8	2.2	4.1	0.8	0.8	0.8	0.8	4.3	16.6
AGTS/SEP Mod													
1-97-05-4527	Operational			0.0	0.0	0.0	0.0	0.0	0.6	2.4	2.4	6.0	11.4
Tank Driver Trainer Mod (M1A2 SEP Upgrade)													
1-97-05-4528	Operational			0.0	0.0	0.0	4.2	1.4	0.0	0.0	0.5	0.0	6.1
Close Combat Tactical Trainer (CCTT)/SEP Mod													
1-97-05-4529	Operational			0.0	0.0	0.0	0.0	0.2	0.9	2.5	2.0	2.7	8.3
Maintenance Training System (MTS) SEP Mod													
1-97-05-4530	Operational			0.0	0.0	0.0	0.2	0.3	3.2	0.0	0.0	0.0	3.7
Totals				11.4	3.2	2.2	8.5	2.7	5.5	5.7	5.7	13.0	57.9
FY96 & prior does not include 6.8 of FY93 program dollars for mod that has been completed.													

INDIVIDUAL MODIFICATION																																																																																														
										Date	February 1998																																																																																			
MODIFICATION TITLE: M60A3 to M1 Conversion Kits 1-03-05-4430																																																																																														
MODELS OF SYSTEMS AFFECTED: M60A3 COFTs																																																																																														
DESCRIPTION / JUSTIFICATION: The Conduct of Fire Trainer (COFT) provides the ready capability for precision tank gunnery training while reducing the O&S costs associated with ammunition consumption. The COFT is configured to the tank system it supports. In support of the Abrams fielding schedule, the conversion of M60A3 COFTs to M1 COFTs is required to meet the Army's new force structure. The structure has changed to make the M60 tank and training devices obsolete. This situation establishes an urgent requirement to convert the M60A3 COFTs to M1 configuration. Without this modification, one of the following most likely will occur: 1) Negative training results from using outdated COFTs; 2) In lieu of using the outdated COFTs, units do little or no gunnery training; or 3) Units increase training with the tank and consumption of full caliber ammunition (which is more costly and ultimately defeats the primary purpose of the COFT).																																																																																														
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																														
						<u>PLANNED</u>		<u>ACCOMPLISHED</u>																																																																																						
						4Q95		1Q96																																																																																						
						4Q95		1Q96																																																																																						
Contractor Test and Evaluation: Initial Operational Test and Evaluation:																																																																																														
Installation Schedule:																																																																																														
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Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001																																																																																	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3																																																																															
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																														
Inputs	16																																																																																													
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Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			To Complete																																																																																	
	1	2	3	4	1	2	3	4	1	2	3	4	Complete																																																																																	
Totals	1	2	3	4	1	2	3	4	1	2	3	4																																																																																		
Inputs														20																																																																																
Outputs														20																																																																																
METHOD OF IMPLEMENTATION: Contractor Contract Dates: FY 1997 Delivery Date: FY 1997																																																																																														
ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 Months FY 1998 FY 1999																																																																																														

INDIVIDUAL MODIFICATION														February 1998						
Date																				
MODIFICATION TITLE (Cont):																				
M60A3 to M1 Conversion Kits 1-03-05-4430																				
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	20	3.8																	20	3.8
Installation Kits		1.6																		1.6
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																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installation		5.4																		5.4
Total Procurement Cost																				

INDIVIDUAL MODIFICATION														Date		February 1998				
MODIFICATION TITLE (Cont): OIP Modification to M1A1 COFTs 1-90-05-7877																				
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	100	1.5																	100	1.5
Installation Kits		0.6																		0.6
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																				
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		2.1																		2.1
Total Procurement Cost																				

INDIVIDUAL MODIFICATION											
MODIFICATION TITLE: AEI 1-93-05-4452										Date	
MODELS OF SYSTEMS AFFECTED: M1A1 COFTs											
DESCRIPTION / JUSTIFICATION:											
The Armament Enhancement Initiative (AEI), 120mm tank round modification is required to change the configuration of the M1A1 COFT to the latest configuration of the tank. Addition of new rounds causes switch changes and additional sight reticles in the tank. These changes affect training and can only be provided in the COFT. The COFT will require both hardware and software changes to provide this capability. A key benefit of training with the COFT is in training gunners and commanders on the capability of new rounds with special features without having to fire the actual rounds. Using the existing COFTs without this capability results in severe negative training. The COFT must maintain the same configuration as the tank system it supports.											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:											
<u>PLANNED</u>						<u>ACCOMPLISHED</u>					
Contractor Test and Evaluation:						1Q96					
Initial Operational Test and Evaluation:						2Q96					
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		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	
Outputs		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20		20 20 20 20	

INDIVIDUAL MODIFICATION																			
AEI 1-93-05-4452																			
Date																			
February 1998																			
MODIFICATION TITLE (Cont):																			
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	\$

INDIVIDUAL MODIFICATION												Date	February 1998																																																																																			
MODIFICATION TITLE: M1 to M1A1 Modification Kits 1-92-06-4419																																																																																																
MODELS OF SYSTEMS AFFECTED: M1 COFTs																																																																																																
DESCRIPTION / JUSTIFICATION: The Conduct of Fire Trainer (COFT) provides the ready capability for precision tank gunnery training while reducing the O&S costs associated with ammunition consumption. The COFT is configured to the tank system it supports. In support of the Abrams fielding schedule, the M1 to M1A1 COFT modification is required to meet the Army's new force structure. All active army divisions, as well as selected National Guard units receiving the M1A1 tank have or will receive the modification. Additionally, the Armor School requires all M1A1 ICOFTs (four COFT crew stations), except for one standard M1 ICOFT and one linked M1 ICOFT used to provide Reserve Component training, be modified (hardware and software) to support basic and advance training of gunners and commanders. This situation establishes a requirement to upgrade the Armor School's M1 ICOFTs to the M1A1 capability																																																																																																
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																																
<u>PLANNED</u> <u>ACCOMPLISHED</u>																																																																																																
Contractor Test and Evaluation: N/A Initial Operational Test and Evaluation: N/A																																																																																																
Installation Schedule:																																																																																																
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Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001																																																																																			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																
Totals	19						4	4	4	4	2	5	3	8	2	2																																																																																
Inputs	16				1	1	5		4	4	2	2	6	4	8	2																																																																																
Outputs																																																																																																
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Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			Totals																																																																																			
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete																																																																																			
Inputs	53																																																																																															
Outputs																																																																																																
METHOD OF IMPLEMENTATION: Contractor																																																																																																
Contract Dates: FY 1997 Oct 97 FY 1998 FY 1999 PRODUCTION LEADTIME: 24 Months																																																																																																
Delivery Date: FY 1997 Oct 99 FY 1998 FY 1999																																																																																																

INDIVIDUAL MODIFICATION													
MODIFICATION TITLE (Cont): M1 to M1A1 Modification Kits 1-92-06-4419													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity	48	1.2	5	0.4									53
Installation Kits		1.0											1.6
Installation Kits, Nonrecurring													1.0
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													
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 Cost		2.2		0.4									2.6

INDIVIDUAL MODIFICATION																																																																																																																																																																																														
										Date	February 1998																																																																																																																																																																																			
MODIFICATION TITLE: Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Rehost 1-97-05-4526																																																																																																																																																																																														
MODELS OF SYSTEMS AFFECTED: M1 and M1A1 COFTs																																																																																																																																																																																														
DESCRIPTION / JUSTIFICATION: The Image Generator (IG) and computer subsystems that are presently being used in the COFTs are approaching obsolescence. It is becoming more difficult to obtain parts for these IGs since they are of the early 1980's design. Sustainability is becoming a major issue as repair and replacement parts are becoming more expensive or entirely not available on the commercial market. Likewise, the software designed to run on these components is also difficult to sustain. The goal is to obtain a replacement IG and computer that will provide for cheaper and easier software changes and more cost effective parts and maintenance. This will position the COFT fleet to support tank units and institutions beyond the year 2000.																																																																																																																																																																																														
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <u>PLANNED</u> 4Q99 1Q00 <u>ACCOMPLISHED</u>																																																																																																																																																																																														
Contractor Test and Evaluation: Initial Operational Test and Evaluation:																																																																																																																																																																																														
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>To Complete</th><th>18 Months</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>22</td><td>49</td> </tr> <tr> <td>Outputs</td> <td>2</td><td></td><td></td><td></td> <td>2</td><td></td><td></td><td></td> <td>2</td><td></td><td></td><td></td> <td>2</td><td></td><td></td><td></td> <td>22</td><td>49</td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																						FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	18 Months	Inputs	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	22	49	Outputs	2				2				2				2				22	49
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																																																																																													
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Inputs	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	22	49																																																																																																																																																																												
Outputs	2				2				2				2				22	49																																																																																																																																																																												
METHOD OF IMPLEMENTATION: Contractor Contract Dates: FY 1997 Mar 98 Delivery Date: FY 1997 Mar 98																																																																																																																																																																																														
ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 18 Months																																																																																																																																																																																														

INDIVIDUAL MODIFICATION														Date		February 1998		
MODIFICATION TITLE (Cont):																		
Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Rehost 1-97-05-4526																		
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	\$		
RDT&E																		
PROCUREMENT																		
Kit Quantity																		
Installation Kits			1	0.1	9	1.6	5	0.8	4	0.8	4	0.8	4	0.8	22	4.3	49	9.2
Installation Kits, Nonrecurring Equipment			2.8	2.1		2.5												7.4
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																		
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						4.1		0.8		0.8		0.8		0.8		4.3		16.6
Total Procurement Cost			2.8	2.2														

INDIVIDUAL MODIFICATION																																																																																																																						
												Date		February 1998																																																																																																								
MODIFICATION TITLE: AGTS/SEP Mod 1-97-05-4527																																																																																																																						
MODELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery Training System																																																																																																																						
DESCRIPTION / JUSTIFICATION: This funding will modify existing M1A2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the M1A2. It is cheaper to modify existing training devices than to procure new ones.																																																																																																																						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																																																						
<u>PLANNED</u> <u>ACCOMPLISHED</u>																																																																																																																						
Contractor Test and Evaluation: 3Q03 Initial Operational Test and Evaluation: 4Q03																																																																																																																						
Installation Schedule:																																																																																																																						
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Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																					
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METHOD OF IMPLEMENTATION: Contractor																																																																																																																						
Contract Dates: FY 1997																																																																																																																						
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ADMINISTRATIVE LEADTIME: 6 Months																																																																																																																						
PRODUCTION LEADTIME: 18 Months																																																																																																																						
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Contract Dates: FY 1999																																																																																																																						
Delivery Date: FY 1999																																																																																																																						

INDIVIDUAL MODIFICATION																		Date		February 1998					
MODIFICATION TITLE (Cont):																		Tank Driver Trainer Mod (M1A2 SEP Upgrade) 1-97-05-4528							
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					1	1.5			1	1.4					1	0.5			3	3.4					
Installation Kits, Nonrecurring Equipment						2.7														2.7					
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																									
FY 1999 Eqpt -- Kits																									
FY 2000 Eqpt -- kits																									
FY 2001 Eqpt -- kits																									
FY 2002 Eqpt -- kits																									
FY 2003 Eqpt -- kits																									
TC Equip-Kits																									
Total Installation							4.2			1.4							0.5			6.1					
Total Procurement Cost																									

INDIVIDUAL MODIFICATION																																																																																																																						
														February 1998																																																																																																								
														Date																																																																																																								
MODIFICATION TITLE: Close Combat Tactical Trainer (CCTT)/SEP Mod 1-97-05-4529																																																																																																																						
MODELS OF SYSTEMS AFFECTED: Close Combat Tactical Trainer (CCTT)																																																																																																																						
DESCRIPTION / JUSTIFICATION: This funding will modify existing Close Combat Tactical Trainer modules to represent the most recent SEP changes to the M1A2.																																																																																																																						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Contractor Test and Evaluation: Initial Operational Test and Evaluation: PLANNED 3Q02 4Q02 ACCOMPLISHED																																																																																																																						
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INDIVIDUAL MODIFICATION												Date	February 1998																																																																																																								
MODIFICATION TITLE: Maintenance Training System (MTS) SEP Mod 1-97-05-4530																																																																																																																					
MODELS OF SYSTEMS AFFECTED: M1A2 Maintenance Trainers																																																																																																																					
DESCRIPTION / JUSTIFICATION: This funding will modify existing M1A2 Maintenance Training Systems to represent the most recent SEP changes to the M1A2.																																																																																																																					
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: PLANNED 3Q01 4Q01 ACCOMPLISHED																																																																																																																					
Installation Schedule: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </table>														Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Totals																					Inputs																					Outputs																				
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Exhibit P-40, Budget Item Justification Sheet													Date: February 1998
Appropriation / Budget Activity/Serial No:				P-1 Item Nomenclature:									
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles				BRADLEY BASE SUSTAINMENT (G80718)									
Program Elements for Code B Items:				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	317	97	105	80	98	73	103	163	181	142	887	2246	
Gross Cost	320.1	137.1	134.6	250.9	231.0	285.8	295.3	430.0	457.8	391.8	2328.3	5262.6	
Less PY Adv Proc								37.5	42.0	33.0	151.3	263.8	
Plus CY Adv Proc							60.6	38.3	13.6		151.3	263.8	
Net Proc (P-1)	320.1	137.1	134.6	250.9	231.1	285.9	355.9	430.8	429.4	358.8	2328.3	5262.8	
Initial Spares			4.9	2.3	0.3	7.1	9.3	11.8	11.0	11.2	83.9	141.8	
Total Proc Cost	320.1	137.1	139.5	253.2	231.4	293.0	365.2	442.6	440.4	370.0	2412.2	5404.6	
Flyaway U/C													
Wpn Sys Proc U/C	1.0	1.4	1.3	3.2	2.4	4.0	3.0	2.7	2.6	2.8	2.7	2.4	
DESCRIPTION: The Bradley Base Sustainment Program initiated a program to upgrade first generation Bradleys(A0) into the A2 configuration and bridge the production gap until the introduction of the A3 upgrade vehicles. FY99 marks the third production year of the A3 configuration. The upgraded A3 Bradley Fighting Vehicle will facilitate enhanced command and control, provide greater lethality, survivability, mobility, and sustainability required to defeat current and future threat forces while remaining operationally compatible with the main battle tank.													
JUSTIFICATION: The FY99 Budget will provide the third year of LRIP for the A3 upgrade program. The M2A3 upgrade program will provide digital communications and target acquisition upgrades required to fight as a member of the combined arms team. These vehicles will be remanufactured in the prime contractor's plant to preserve the critical skills and vendor base to allow for future modernization.													
Quantities are all A0-A2's in FY96 and prior, 45 A0-A2 Linebackers and 35 A3's in FY97, 80 A0-A2ODS and 18 A3's in FY98, and all A3's thereafter.													
A four year multi-year contract is planned for FY's 00-03.													

DESCRIPTION: The Bradley Base Sustainment Program initiated a program to upgrade first generation Bradleys(A0) into the A2 configuration and bridge the production gap until the introduction of the A3 upgrade vehicles. FY99 marks the third production year of the A3 configuration. The upgraded A3 Bradley Fighting Vehicle will facilitate enhanced command and control, provide greater lethality, survivability, mobility, and sustainability required to defeat current and future threat forces while remaining operationally compatible with the main battle tank.

JUSTIFICATION: The FY99 Budget will provide the third year of LRIP for the A3 upgrade program. The M2A3 upgrade program will provide digital communications and target acquisition upgrades required to fight as a member of the combined arms team. These vehicles will be remanufactured in the prime contractor's plant to preserve the critical skills and vendor base to allow for future modernization.

Quantities are all A0-A2's in FY96 and prior, 45 A0-A2 Linebackers and 35 A3's in FY97, 80 A0-A2ODS and 18 A3's in FY98, and all A3's thereafter.

A four year multi-year contract is planned for FY's 00-03.

Exhibit P-40C Budget Item Justification Sheet					Date	February 1998
Appropriation / Budget Activity/Serial No.		P-1 Item Nomenclature				
PROCUREMENT OF WPNS & TRKO CMBT VEHS / 1 / Tracked Combat Vehicles				BRADLEY BASE SUSTAINMENT (080718)		
Program Elements for Code B Items		Code	Other Related Program Elements			
A3 Advanced Procurement Detail (in Mils):						
FY TOA						
FY2000 for FY2001 (memo)		37.5		2001	2002	2003
FY2000 for FY2002 (memo)		20.3				
FY2000 for FY2003 (memo)		2.8				
FY2001 (memo)			(37.5)			
FY2001 for FY2002 (memo)			21.7			
FY2001 for FY2003 (memo)			16.6			
FY2002 (memo)			(42.0)			
FY2002 for FY2003 (memo)			13.6			
FY2003 (memo)			(33.0)			

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles				P-1 Line Item Nomenclature: BRADLEY BASE SUSTAINMENT (G80718)				Weapon System Type:		Date: February 1998	
WTCV Cost Elements		FY 96		FY 97		FY 98		FY 99					
ID	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
BRADLEY BASE SUSTAINMENT (M2A2)		134613			75042			115165			13280		
BRADLEY BASE SUSTAINMENT (M2A3)					175878			115878			272564		
TOTAL		134613			250920			231043			285844		

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:										Date:		
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles										February 1998		
P-1 Item Nomenclature:										BRADLEY BASE SUSTAINMENT (M2A2) (G80716)		
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	317	97	105	45	80							644
Gross Cost	320.1	137.1	134.6	75.0	115.2	13.3	3.3	6.3	0.0	0.0	0.0	804.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	320.1	137.1	134.6	75.0	115.2	13.3	3.3	6.3	0.0	0.0	0.0	804.8
Initial Spares			4.9	2.3								7.2
Total Proc Cost	320.1	137.1	139.5	77.3	115.2	13.3	3.3	6.3	0.0	0.0	0.0	812.0
Flyaway U/C												
Wpn Sys Proc U/C	1.0	1.4	1.3	1.7	1.4							1.3

DESCRIPTION: The Bradley Base Sustainment Program initiated a program to upgrade first generation Bradleys(A0) into the A2 configuration and bridge the production gap until the introduction of the A3 upgrade vehicles. FY99 marks the third production year of the A3 configuration. The upgraded A3 Bradley Fighting Vehicle will facilitate enhanced command and control, provide greater lethality, survivability, mobility, and sustainability required to defeat current and future threat forces while remaining operationally compatible with the main battle tank.

Quantities are all A0-A2's in FY96 and prior, 45 A0-A2 Linebackers FY97, and 80 A0-A2ODS in FY 98.

Exhibit P-5, Weapon WTCV Cost Analysis				Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles				P-1 Line Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A2) (G80716)				Weapon System Type:				Date: February 1998			
WTCV				FY 96				FY 97				FY 98				FY 99			
Cost Elements				ID	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost		
						\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000		
1. VEHICLE						60371	105	575	30600	45	680	49867	80	623					
2. T2SS						8886	75	118				20000	80	250					
3. Engine						4965	105	47				4000	80	50					
4. Track						1933	105	18	829	45	18	1497	80	19					
5. Other GFE (Buy)						6781	105	65	4832	45	107	8827	80	110					
6. Other GFE (Reman)						11109	105	106	5043	45	112	9107	80	114					
7. STINGER Kils									20464	99	207								
SUBTOTAL						94045			61768			93298							
8. Govt Test & Eval						340									1787				
9. Engineering-Contractor						17845			5732			4100			4553				
10. Engineering-Government						4270													
11. Project Management Admin						2644													
12. Fielding						7842			7542			3036			6940				
13. Reimbursable Matrix Supt						2155													
SUBTOTAL						35096			13274			7136			13280				
14. PSE						5472						14731							
TOTAL						134613			75042			115165			13280				
Gross P-1 End Cost						134613			75042			115165			13280				
Less: Prior Year Adv Proc (by PY FY)																			
Net P-1 Full Funding Cost						134613			75042			115165			13280				
Plus: P-1 CY Adv Proc																			
Other Non P-1 Costs						4854			2271										
Initial Spares																			
Mods																			
TOTAL						139467			77313			115165			13280				

Exhibit P-5a, Budget Procurement History and Planning											
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles					Weapon System Type:			P-1 Line Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A2) (G80716)			
WBS Cost Elements:		Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
Fiscal Years											
1. VEHICLE											
FY 96		UDLP, York PA	SS/FFP	TACOM	Jan-96	May-97	105	575	YES	NO	
FY 97		UDLP, York PA	SS/FFP	TACOM	Jul-97	Nov-97	45	680	YES	NO	
FY 98		UDLP, York PA	SS/FFP	TACOM	Aug-98	Nov-99	80	623	YES	NO	
2. T2SS											
FY 96		HAC, LaGrange GA	SS/FFP	AMCOM	Feb-96	Mar-97	75	118	YES	NO	
FY 98		HAC, LaGrange GA	SS/FFP	AMCOM	Nov-98	Aug-99	80	250	YES	NO	
3. Engine											
FY 96		Cummins, Columbus IN	SS/FFP	TACOM	Jan-96	Mar-96	105	47	YES	NO	
FY 98		Cummins, Columbus IN	SS/FFP	TACOM	Aug-98	Nov-98	80	50	YES	NO	
4. Track											
FY 96		Goodyear, Akron OH	SS/FFP	TACOM	Feb-96	Feb-97	105	18	YES	NO	
FY 97		Goodyear, Akron OH	SS/FFP	TACOM	Sep-97	Oct-97	45	18	YES	NO	
FY 98		Goodyear, Akron OH	SS/FFP	TACOM	Sep-98	Sep-99	80	19	YES	NO	
7. STINGER Kits											
FY 97		Boeing Corp	SS/FFP	AMCOM	Mar-97	Nov-97	99	207	YES	NO	
REMARKS:											

Exhibit P-40, Budget Item Justification Sheet												
Date:		February 1998										
Appropriation / Budget Activity/Serial No:		P-1 Item Nomenclature:										
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles		BRADLEY BASE SUSTAINMENT (M2A3) (G80717)										
Program Elements for Code B Items:		Other Related Program Elements:										
023735A		Code: B										
	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				35	18	73	103	163	181	142	887	1602
Gross Cost	0.0	0.0	0.0	175.9	115.9	272.6	292.0	423.7	457.8	391.8	2328.3	4458.0
Less PY Adv Proc								37.5	42.0	33.0	151.3	263.8
Plus CY Adv Proc							60.6	38.3	13.6		151.3	263.8
Net Proc (P-1)	0.0	0.0	0.0	175.9	115.9	272.6	352.6	424.5	429.4	358.8	2328.3	4458.0
Initial Spares					0.3	7.1	9.3	11.8	11.0	11.2	83.9	134.6
Total Proc Cost	0.0	0.0	0.0	175.9	116.2	279.7	361.9	436.3	440.4	370.0	2412.2	4592.6
Flyaway U/C												
Wpn Sys Proc U/C				5.0	6.5	3.8	2.9	2.7	2.6	2.8	2.7	2.9

DESCRIPTION: The Bradley Base Sustainment Program initiated a program to upgrade first generation Bradleys(A0) into the A2 configuration and bridge the production gap until the introduction of the A3 upgrade vehicles. FY99 marks the third production year of the A3 configuration. The upgraded A3 Bradley Fighting Vehicle will facilitate enhanced command and control, provide greater lethality, survivability, mobility, and sustainability required to defeat current and future threat forces while remaining operationally compatible with the main battle tank.

JUSTIFICATION: The FY99 Budget will provide the third year of LRIP for the A3 upgrade program. The M2A3 upgrade program will provide digital communications and target acquisition upgrades required to fight as a member of the combined arms team. These vehicles will be remanufactured in the prime contractor's plant to preserve the critical skills and vendor base to allow for future modernization.

A four year multi-year contract is planned for FY's 00-03.

Exhibit P-40C Budget Item Justification Sheet					Date
Appropriation / Budget Activity/Serial No.		P-1 Item Nomenclature		February 1998	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles		BRADLEY BASE SUSTAINMENT (M2A3) (G80717)			
Program Elements for Code B Items		Code	Other Related Program Elements		
Fiscal Year		2000	2001	2002	2003
A3 Advanced Procurement Detail (in Mils):					
FY TOA					
FY2000 for FY2001 (memo)		37.5			
FY2000 for FY2002 (memo)		20.3			
FY2000 for FY2003 (memo)		2.8			
FY2001 (memo)			(37.5)		
FY2001 for FY2002 (memo)			21.7		
FY2001 for FY2003 (memo)			16.6		
FY2002 (memo)				(42.0)	
FY2002 for FY2003 (memo)				13.6	
FY2003 (memo)					(33.0)

Exhibit P-5. Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKO CMBT VEHS / 1 / Tracked Combat Vehicles			P-1 Line Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A3) (G80717)			Weapon System Type:			Date: February 1998		
WTCV Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. Vehicle						68348	35	1953	34785	18	1933	59134	73	810
2. IBAS						35706	35	1020	18699	18	1039	44214	73	606
3. FLIR						20980	27	777	14377	27	532	36425	76	479
4. Other GFE						3212	35	92	2224	18	124	55959	73	767
5. Reman (General Dynamics)												6049	73	83
6. Pre Mod Depot Maint												4290	73	59
7. SSES														
8. Linebacker Components														
SUBTOTAL			128246						70085			206071		
9. Engineering--Government						7234			11777			15180		
10. Engineering--Contractor						25711			21422			27765		
11. Project Management Administration						1843			1882			2314		
12. Reimbursable Matrix Support						1945			2544			2443		
13. Test and Evaluation						861			760			277		
SUBTOTAL			37594						38385			47979		
14. Cummins Engine Life-of-Type (LOT) Buy						8038			5600			7837		
15. Peculiar Support Equipment						2000						2149		
16. Classroom Spares									1808			8528		
17. Fielding														
SUBTOTAL			10038						7408			18514		
TOTAL			175878			175878			115878			272564		
Gross P-1 End Cost			175878			175878			115878			272564		
Less: Prior Year Adv Proc														
Net P-1 Full Funding Cost			175878			175878			115878			272564		
Plus: P-1 CY Adv Proc														
Other Non P-1 Costs														
Initial Spares									293			7130		
Mods														
TOTAL			175878			175878			116171			279694		

Exhibit P-5a, Budget Procurement History and Planning										Date:
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles										February 1998
P-1 Line Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A3) (G80717)										
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
1. Vehicle										
FY 97	UDLP, York PA	SS/FFP	TACOM	Jul-97	Oct-98	35	1953	YES	NO	
FY 98	UDLP, York PA	SS/FFP	TACOM	Nov-97	May-99	18	1933	YES	NO	
FY 99	UDLP, York PA	SS/FFP	TACOM	Dec-98	Mar-00	73	810	YES	NO	
2. IBAS										
FY 97	RAYTHEON TI,TX/HAC,GA	C/FFP	AMCOM	Sep-97	Aug-98	35	1020	YES	NO	
FY 98	RAYTHEON TI,TX/HAC,GA	C/FFP	AMCOM	Dec-97	Apr-99	18	1039	YES	NO	
FY 99	TBD	C/FFP	AMCOM	Jan-99	Feb-00	73	606	YES	NO	
3. FLIR										
FY 97	TEXAS INSTRUMENT, DALLAS TX	SS/FFP	NVL	Mar-97	Apr-98	27	777	YES	NO	
FY 98	TEXAS INSTRUMENT, DALLAS TX	SS/FFP	NVL	Jan-98	Jan-99	27	532	YES	NO	
FY 99	TEXAS INSTRUMENT, DALLAS TX	SS/FFP	NVL	Jan-99	Dec-99	76	479	YES	NO	
REMARKS:										

FY 98 / 99 BUDGET PRODUCTION SCHEDULE										P-1 Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A3) (G80717)										Date: February 1998									
COST ELEMENTS										Fiscal Year 02										Fiscal Year 03									
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Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles												BRADLEY PVS TRAINING DEVICES (320900)	
Program Elements for Code B Items:												Other Related Program Elements:	
Code: A												0203735A D371 COMBAT VEHICLE IMPROVEMENT PROGRAM	
	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	225.4	0.0	0.0	0.6	0.0	12.7	23.8	19.0	2.6	3.3	36.4	323.9	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	225.4	0.0	0.0	0.6	0.0	12.7	23.8	19.0	2.6	3.3	36.4	323.9	
Initial Spares	1.8											1.8	
Total Proc Cost	227.2	0.0	0.0	0.6	0.0	12.7	23.8	19.0	2.6	3.3	36.4	325.7	
Flyaway U/C													
Wpn Sys Proc U/C													

Description:

- Bradley Advanced Training System (BATS) - Integrated BFVS A3 crew precision gunnery training system.
- Maintenance Trainer - Replicates actual Bradley turret allowing maintainers to trouble shoot, fault isolate, and repair.
- Precision Gunnery System (PGS) - Upgrade PGS to integrate BFVS A3. Facilitates unit sustainment training between gunnery cycles.
- Bradley Desktop Trainer (BDT) - desktop computer designed to support individual and networked unit training.

Justification:

Introduction of the more technologically advanced Infantry Fighting Vehicle and Cavalry Fighting Vehicles into the Army inventory necessitates a redesign of existing training equipment. The rising cost of fuel, ammunition, repair parts, environment restrictions, vehicles used exclusively for training, and restriction on the availability of suitable training areas will drastically reduce the capability to provide effective, realistic training on the BFVS through the operational use of the vehicle. The goal of training devices is to provide cost effective training to the soldiers without sacrificing realism. This training equipment will be part of an overall training package which will be used to replicate or substitute for actual vehicle use.

Exhibit P-5. Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles			P-1 Line Item Nomenclature: BRADLEY FVS TRAINING DEVICES (G20900)			Weapon System Type:			Date: February 1998		
WTCV Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
Production:														
		1. Bradley Advanced Training System				440	1	440				6500	5	1300
		2. Maintenance Trainers										1545	4	386
		3. Precision Gunnery System										2552	25	102
		4. Bradley Desktop Trainer (BDT)										1152	96	12
		Government Engineering:				131						979		
		TOTAL				571						12728		

Exhibit P-5a, Budget Procurement History and Planning										Date:	February 1998
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles		Weapon System Type:		P-1 Line Item Nomenclature: BRADLEY FVS TRAINING DEVICES (G20900)							
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date	
1. Bradley Advanced Training System FY99	TBD	FFP	TBD	Nov-98	Aug-99	5	1300	N/A	N/A	N/A	
2. Maintenance Trainers FY97	TBD	FFP	TBD	Aug-98	Jan-99	1	440	N/A	N/A	N/A	
FY99	TBD	FFP	TBD	Jan-99	Jul-99	4	386	N/A	N/A	N/A	
3. Precision Gunnery System FY99	SAAB, Sweden	FFP	STRICOM	Dec-98	Aug-99	25	102	N/A	N/A	N/A	
4. Bradley Deskbook Trainer FY99	UDLP	FFP	STRICOM	Nov-98	Aug-99	96	12	N/A	N/A	N/A	
REMARKS:											

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles												
P-1 Item Nomenclature:												HAB TRAINING DEVICES (G84600)
Program Elements for Code B Items:												
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							5					5
Gross Cost	0.0	0.0	0.0	0.0	0.0	0.4	15.2	1.3	1.1	0.0	0.0	17.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	0.4	15.2	1.3	1.1	0.0	0.0	17.8
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	0.4	15.2	1.3	1.1	0.0	0.0	17.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The Wolverine (Heavy Assault Bridge) simulator is an institutional operator training system (near term implementation) and will evolve into a future unit collective training system (mid to far term) implementation. Five institutional operator simulator systems will be located and housed at Ft. Leonard Wood to accomplish Advanced Individual Training (AIT) for the Military Occupational Specialty (MOS) 12B Combat Engineer on Wolverine driver/operator mission functions. Mission functions will include, driving the vehicle and conducting gap crossing operations (e.g. launch and retrieve the bridge) - day/night and in all weather/environmental conditions. Each simulator system will have the capability to train two Wolverine crews (4 MOS 12Fs) concurrently. The average student throughput is approximately 208.

JUSTIFICATION: The simulators will optimize training effectiveness at reduced institutional OPTEMPO costs and will minimize environmental impact to the installation.

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles				P-1 Line Item Nomenclature: HAB TRAINING DEVICES (GB4600)				Weapon System Type:		Date: February 1998	
WTCV Cost Elements			FY 96		FY 97		FY 98		FY 99					
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Gov't Program Mgmt												386		

Exhibit P-40, Budget Item Justification Sheet										Date:	February 1998	
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKO CMBT VEHS / 1 / Tracked Combat Vehicles			P-1 Item Nomenclature: BRADLEY FVS TRAINING DEVICES (MOD) (G22500)									
Program Elements for Code B Items:			Other Related Program Elements: 0203735A D371 COMBAT VEHICLE IMPROVEMENT PROGRAM									
	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	3.9	6.0	0.5	0.8	0.0	2.1	4.4	4.8	0.0	0.0	0.0	22.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	3.9	6.0	0.5	0.8	0.0	2.1	4.4	4.8	0.0	0.0	0.0	22.5
Initial Spares												
Total Proc Cost	3.9	6.0	0.5	0.8	0.0	2.1	4.4	4.8	0.0	0.0	0.0	22.5
Flyaway U/C												
Wpn Sys Proc U/C												
DESCRIPTION: Software upgrades to BFV Conduct of Fire Trainer (COFT)s, ODS COFTS, Precision Gunnery System, Bradley Advanced Training System, Bradley Desktop Trainer, and Maintenance Training Systems.												
JUSTIFICATION: Since training devices now function based on software which, as the systems are upgraded/modified, the training device software must be modified to provide adequate training for the soldier. Currently fielded training devices will be upgraded to support the BFVS as system enhancements and software maturation occurs. The average soldier sustainment throughput per year is approximately 3600 for the BFV Commanders and Gunners in the units who will be receiving training on these COFTS.												

Exhibit P-40M Budget Item Justification Sheet

Date _____

February 1998

Appropriation / Budget Activity/Serial No.

P-1 Item Nomenclature

PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles

BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500)

Program Elements for Code B Items

Code

Other Related Program Elements

Fiscal Years

Description

OSIP NO.	Classification
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OSIP NO.	
Software Upgrades	

OSIP NO.	Classification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
Software Upgrades											
1-96-05-4513	Operational	0.0	0.8	0.0	2.1	4.4	4.8	0.0	0.0	0.0	12.1

	0.0	0.8	2.1	4.4	4.8	0.0	0.0	0.0	12.1
Totals	0.0	0.8	2.1	4.4	4.8	0.0	0.0	0.0	12.1

INDIVIDUAL MODIFICATION																																																																																															
										Date	February 1998																																																																																				
MODIFICATION TITLE: Software Upgrades 1-96-05-4513																																																																																															
MODELS OF SYSTEMS AFFECTED: BFV COFTs, ODS COFTs, Precision Gunnery System, BATS, Bradley Desktop Trainer, Maintenance Training Systems.																																																																																															
DESCRIPTION / JUSTIFICATION: Software updates will be required of training devices. As a system is upgraded/modified software on the training device must be modified to ensure adequate training for the soldier.																																																																																															
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE																																																																																															
PLANNED						ACCOMPLISHED																																																																																									
Preliminary Design Review Critical Design Review Contractor Test & Evaluation Development Test & Evaluation Initial Operational Test and Evaluation IPR Production Decision TDP Available																																																																																															
Installation Schedule:																																																																																															
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Outputs																																																																																															
METHOD OF IMPLEMENTATION: Contractor																																																																																															
Contract Dates: FY 1997 Apr 98 FY 1998 Apr 99 PRODUCTION LEADTIME: 24 Months																																																																																															
Delivery Date: FY 1997 Apr 00 FY 1998 Apr 01 FY 1999 Apr 01																																																																																															

Exhibit P-40, Budget Item Justification Sheet										February 1998		
Appropriation / Budget Activity/Serial No:										Date:		
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles										P-1 Item Nomenclature:		
Program Elements for Code B Items:										FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100)		
Code:										Other Related Program Elements:		
A												
	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	805		48	48	36							937
Gross Cost	408.9	0.0	50.0	58.3	39.2	0.0	0.0	0.0	0.0	0.0	0.0	556.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	408.9	0.0	50.0	58.3	39.2	0.0	0.0	0.0	0.0	0.0	0.0	556.4
Initial Spares	1.8											1.8
Total Proc Cost	410.7	0.0	50.0	58.3	39.2	0.0	0.0	0.0	0.0	0.0	0.0	558.2
Flyaway U/C												
Wpn Sys Proc U/C	0.5		1.0	1.2	1.1							.6

DESCRIPTION:

The Field Artillery Ammunition Support Vehicle (FAASV) is a full tracked armored ammunition vehicle with onboard Ammunition Handling Equipment (AHE). The M992 is used to support the M109 Self-Propelled Howitzer (SPH). The FAASV is capable of transporting a minimum 12,000 pounds of 155mm ammunition over improved, unimproved, and/or cross-country roads. Armor shielding provides necessary ballistic protection. An armored rear door hinges upward and outward to provide the overhead ballistic protection between the FAASV and the Howitzer during loading operations. A conveyor is used for passing prepared projectiles and propellant charges from the FAASV into the supported Howitzer. Modifications to the rear door, conveyor, and propellant canister racks is incorporated to make the FAASV compatible with the M109A6 Paladin. The FAASV has the mobility equivalent to its supported Self-Propelled Howitzers. The FAASV is designed to operate in all geographical areas and climatic conditions in which the Howitzer operates. The M992A2 was type classified standard in July 1994.

JUSTIFICATION:

The Carrier, Ammunition, Tracked (155mm, M992A2) provides a significant improvement to the Army's offensive ground combat capability. The FAASV provides 100% increase in armor protection for the crew and ammunition, an 80% increase in Ammunition Handling Equipment (AHE) capability and a 50% increase in vehicle mobility over the current M548, which is being replaced on a one-for-one basis. Thus, high artillery firing rates can be maintained while minimizing casualties. The FAASV has a ventilated face piece Nuclear, Biological, Chemical(NBC) system, a Simplified Test Equipment - Internal Combustion Engine (STE-ICE), and an Automatic Fire Extinguisher System. The FAASV is a companion vehicle to, and is required to support the M109A6 Self-Propelled Howitzer (SPH). It also preserves a warm mobilization base for the SPH with the only tooled and experienced producer.

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles			P-1 Line Item Nomenclature: FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100)			Weapon System Type:			Date: February 1998		
WTCV Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. Basic Vehicle	A		38361	48	799	31224	48	651	26925	36	748			
2. Engine			1334	48	28	1386	48	29	1040	36	29			
3. Roadwheels			144	48	3	144	48	3	115	36	3			
4. Track			895	48	19	779	48	16	516	36	14			
5. BI/COEI			560			1389			593					
6. Government Furnished Materiel			2519			4259			1035					
7. Engineering Change Orders			95			95			71					
8. Engineering - Government			1506			7155			3240					
9. Engineering - Contractor			2448			8589			3234					
10. Project Management Administration			600			1901			1220					
11. Systems Testing			252			332			350					
12. Fielding			1274			1061			840					
TOTAL			49988			58314			39179					

Exhibit P-5a, Budget Procurement History and Planning										
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles					P-1 Line Item Nomenclature: FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100)					Date: February 1998
WBS Cost Elements:					Weapon System Types:					
Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
1. Basic Vehicle										
FY 96	United Defense (UDLP-GSD) York, PA	SS/FFP	TACOM	Jul-96	May-98	48	799			
FY 97	United Defense (UDLP-GSD) York, PA	Option	TACOM	Jan-97	Nov-98	48	651			
FY 98	United Defense (UDLP-GSD) York, PA	SS/FFP	TACOM	Apr-98	May-99	36	748			Jan-98
2. Engine										
FY 96	Detroit Diesel Detroit, MI	SS/FFP	TACOM	Jul-96	Dec-97	48	28			
FY 97	Detroit Diesel Detroit, MI	SS/FFP	TACOM	Jan-97	Aug-98	48	29			
FY 98	Detroit Diesel Detroit, MI	SS/FFP	TACOM	Jan-98	Dec-98	36	29			
3. Roadwheels										
FY96	North American Molded Products Hartville, OH	C/FFP	TACOM	May-96	Oct-97	48	3			
FY 97	North American Molded Products Hartville, OH	C/FFP	TACOM	Jan-97	May-98	48	3			
FY 98	North American Molded Products Hartville, OH	C/FFP	TACOM	Feb-98	Mar-99	36	3			
4. Track										
FY 96	Varec, Belgium	C/FFP	TACOM	Jul-96	Oct-97	48	19			
FY 97	Detroit Diesel	C/FFP	TACOM	Sep-97	May-98	48	16			
FY 98	Detroit Diesel	C/FFP	TACOM	Feb-98	Aug-98	36	14			
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles												M1A2 TANK TRAINING DEVICES (GB1302)	
Program Elements for Code B Items:												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	22.9	16.8	6.1	12.5	13.1	13.4	8.2	10.8	12.1	12.4	27.0	155.4	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	22.9	16.8	6.1	12.5	13.1	13.4	8.2	10.8	12.1	12.4	27.0	155.4	
Initial Spares													
Total Proc Cost	22.9	16.8	6.1	12.5	13.1	13.4	8.2	10.8	12.1	12.4	27.0	155.4	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: The family of M1A2 Training Aids, Devices, Simulators and Simulations (TADSS) will replicate actual tank performance without incurring the much higher costs of operating the tank itself.

- Advance Gunnery Training System (AGTS) - These are precision gunnery trainers which provide realistic commander and gunner training under varying scenarios.
- Maintenance Trainers - These systems provide training in essential unit and direct support/general support tasks. There are four different trainers: M1A2 Hands-on-Trainer (HOT); Hull Electrical Diagnostic/Troubleshooting (D/T) Trainer; Turret/Fire Control D/T Trainer; and Direct Support Electrical System Test Set Line Replaceable Unit (DSESTS LRU) simulators. The students (approximately 600/yr) will learn about the sub-systems and procedures for troubleshooting and fault isolating the tank system. The intended sites are Ft. Knox and Aberdeen Proving Grounds.
- SEP Integration - This funding provides for integration of SEP improvements into the various training devices impacted by those changes on the tank.

JUSTIFICATION: Fielding of the M1A2 Main Battle Tank requires concurrent fielding of a training support package. It is not cost effective to provide effective, realistic training on the M1A2 tanks through the operational use of the vehicle. Realistic training on a family of training devices simply makes better economic sense.

Exhibit P-5. Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKO CMBT VEHS / 1 / Tracked Combat Vehicles			P-1 Line Item Nomenclature: M1A2 TANK TRAINING DEVICES (GB1302)			Weapon System Type:			Date: February 1998		
WTCV Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
Advance Gunnery Training System (AGTS)														
1) Production	A		1819			5684			7700			8800		
2) Government Support			206			550			550			400		
3) First Article Test			268			1171			1768			300		
4) Non Recurring Cost			2907											
SUBTOTAL			5200	2	2600	7405	6	1234	10018	7	1431	9500	8	1188
M1A2 Maintenance Trainers														
1) Production	A		750											
2) Government Support			183											
3) First Article Test														
4) Non Recurring Cost														
SUBTOTAL			933	VAR	VAR		VAR	VAR		VAR	VAR		VAR	VAR
M1A2 Non System Integration Kits														
1) Production	A					1779								
2) Government Support						162								
3) First Article Test														
4) Non Recurring Cost						1941	VAR	VAR		VAR	VAR		VAR	VAR
SUBTOTAL							VAR	VAR		VAR	VAR		VAR	VAR
M1A2 Software Upgrades														
1) Production	A					100			100			100		
2) Government Support						380			825			825		
3) First Article Test														
4) Non Recurring Cost						480	VAR	VAR	925	VAR	VAR	925	VAR	VAR
SUBTOTAL							VAR	VAR		VAR	VAR		VAR	VAR
SEP Integration														
1) Production	A								633			2836		
2) Government Support									50			50		
3) First Article Test									1450			100		
4) Non Recurring Cost						2720	VAR	VAR		VAR	VAR		VAR	VAR
SUBTOTAL						2720	VAR	VAR	2133	VAR	VAR	2986	VAR	VAR
TOTAL			6133			12546			13076			13411		

Exhibit P-5a, Budget Procurement History and Planning										Date:
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles					Weapon System Type:					Date: February 1998
P-1 Line Item Nomenclature: M1A2 TANK TRAINING DEVICES (GB1302)										
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 Revisn Avail	RFP Issue Date
Advance Gunnery Training System (AGTS) FY96 FY97 FY98 FY99	Lockheed Martin, Orlando, FL	C-FPI	STRICOM	Feb-96	Jul-97	2	2600	Yes	No	N/A
	Lockheed Martin, Orlando, FL	C-FPI	STRICOM	Feb-97	Apr-98	6	1234	Yes	No	N/A
	Lockheed Martin, Orlando, FL	C-FPI	STRICOM	Mar-98	Mar-00	7	1431			N/A
	Lockheed Martin, Orlando, FL	C-FPI	STRICOM	Jan-99	Mar-01	8	1188			N/A
M1A2 Maintenance Trainers FY96	Contraves, Tampa, FL	C-FFP	STRICOM	Mar-96	Mar-98	VAR	VAR	Yes	No	N/A
M1A2 Non System Integration Kits 1/ FY97	Various	C-FFP	STRICOM	Mar-97	Jun-98	VAR	VAR	No	No	N/A
M1A2 Software Upgrades 2/ FY97 FY98 FY99	Various	C-FFP	STRICOM	Dec-96	Dec-97	VAR	VAR	No	No	N/A
	Various	C-FFP	STRICOM	Dec-97	Dec-98	VAR	VAR	No	No	N/A
	Various	C-FFP	STRICOM	Dec-98	Dec-99	VAR	VAR	No	No	N/A
SEP Integration FY97 FY98 FY99	Lockheed Martin, Orlando, FL Lockheed Martin, Orlando, FL Lockheed Martin, Orlando, FL	C-PIF C-PIF C-PIF	STRICOM STRICOM STRICOM	Jun-97 Feb-98 Feb-99	NA NA Mar-00	VAR VAR VAR	VAR VAR VAR	No No No	No No No	N/A N/A N/A
REMARKS: 1/ M1A2 Non-System Integration Kits provide system unique kits allowing the installation of Non-System Training Devices, such as Thru Sight Video (TSV), Tank Weapon Gun Simulation System (TWGSS), Precision Range Integrated Maneuver Exercise (PRIME), and Multiple Integrated Laser Engagement System (MILES) onto the M1A2 tank. 2/ M1A2 trainer software upgrades update M1A2 training devices to keep pace with changes in the M1A2 tank.										

Exhibit P-40, Budget Item Justification Sheet												Date: February 1998	
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
PROCUREMENT OF WPNS & TRKO CMBT VEHS / 1 / Tracked Combat Vehicles												COMMAND & CONTROL VEHICLE (G84200)	
Program Elements for Code B Items:												Other Related Program Elements:	
Code: A												PE 0604640A Advanced Command and Control Vehicle	
	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				5	5	10	22	22	22	37	316	439	
Gross Cost	0.0	0.0	0.0	48.8	30.3	44.2	74.8	77.4	71.3	121.8	936.6	1405.2	
Less PY Adv Proc								6.5	10.1	19.0	116.5	152.1	
Plus CY Adv Proc							13.5	12.1	10.0		116.5	152.1	
Net Proc (P-1)	0.0	0.0	0.0	48.8	30.3	44.2	88.3	83.0	71.2	102.8	936.6	1405.2	
Initial Spares					0.9	2.5	2.6	0.7	1.5	1.3		9.6	
Total Proc Cost	0.0	0.0	0.0	48.8	31.2	46.7	90.9	83.7	72.7	104.1	936.6	1414.7	
Flyaway U/C													
Wpn Sys Proc U/C				9.8	6.2	4.7	4.1	3.8	3.3	2.8	3.0	3.2	
DESCRIPTION: The Command and Control Vehicle (C2V), provides a fully tracked, armored vehicle based on Bradley A2 and MLRS designs and components. It will ensure a mobile, responsive, and survivable command and control capability for the heavy force, and it provides the platform to support command and control on the move. C2V was developed in response to lessons learned during Operation Desert Storm. It supports the Army Digitization Effort, incorporating communications and electronic systems compatible with Army Tactical Command and Control systems (ATCCS). JUSTIFICATION: This program was initiated as a result of deficiencies in existing command and control vehicles identified during Operation Desert Storm. FY99 is the 3rd year of low rate initial production. A four year multi-year contract is planned for FY00 through FY03.													

Exhibit P-40C Budget Item Justification Sheet					Date	February 1998
Appropriation / Budget Activity/Serial No.		P-1 Item Nomenclature				
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles		COMMAND & CONTROL VEHICLE (G84200)				
Program Elements for Code B Items		Code	Other Related Program Elements	PE 0604840A	Advanced Command and Control Vehicle	
		A				
C2V Advanced Procurement Detail (in Mills):		Fiscal Year	2000	2001	2002	2003
FY2000 For FY2001 (memo)			6.5			
FY2000 For FY2002 (memo)			3.6			
FY2000 For FY2003 (memo)			3.4			
FY2001 (memo)				-6.5		
FY2001 For FY2002 (memo)				6.5		
FY2001 For FY2003 (memo)				5.6		
FY2002 (memo)				-10.1		
FY2002 For FY2003				10.0		
FY2003 (memo)					-19.0	

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles				P-1 Line Item Nomenclature: COMMAND & CONTROL VEHICLE (G84200)				Weapon System Type:		Date: February 1998	
WTCV Cost Elements			FY 96		FY 97		FY 98		FY 99					
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1.		Vehicle				12394	5	2479	14331	5	2866	23059	10	2306
2.		Engine (included in LOT buy)												
3.		Transmission				567	5	113	739	5	148	1487	10	149
4.		Primary Power Unit										1834	10	183
5.		Environmental Control Unit										406	10	41
6.		Bio Chem Unit										1139	10	114
7.		Other GFE				192	5	38	191	5	38	1256	10	126
8.		Mission Module Components				1273	5	255	1157	5	231	1908	10	191
9.		Veh Inter/Intra Communication System (VIICS)				279	5	56	255	5	51	470	10	47
SUBTOTAL						14705			16673			31559		
10.		Tooling												
11.		FAT/Qual of Vendors												
SUBTOTAL														
12.		Test							666			935		
13.		Engineering - Government				1292			2725			2785		
14.		Engineering - Contractor				8353			7033			6896		
15.		Project Management Administration				300			469			474		
16.		Reimbursable Matrix Support				170			453			503		
17.		Software Support							522			282		
18.		Logistics				1996			1721			807		
19.		Cummins Engine Life-of-Type (LOT) Buy				21950	439	50						
TOTAL						48766			30262			44241		

Exhibit P-5a, Budget Procurement History and Planning												
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles					Weapon System: Type:		P-1 Line Item Nomenclature: COMMAND & CONTROL VEHICLE (384200)					
WBS Cost Elements: Fiscal Years		Contractor and Location		Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
1. Vehicle												
FY 97		UDLP, York, PA.		SS/FFP	TACOM	Dec-96	Apr-98	5	2479		No	
FY 98		UDLP, York, PA.		SS/FFP	TACOM	Dec-97	Apr-99	5	2866		No	
FY 99		UDLP, York, PA.		SS/FFP	TACOM	Dec-98	Apr-00	10	2306		No	
3. Transmission												
FY 97		GDLS, Muskegon, MI.		SS/FFP	TACOM	Mar-97	Apr-98	5	113		No	
FY 98		GDLS, Muskegon, MI.		SS/FFP	TACOM	Mar-98	Apr-99	5	148		No	
FY 99		GDLS, Muskegon, MI.		SS/FFP	TACOM	Mar-99	Apr-00	10	149		No	
4. Primary Power Unit												
FY 99		TBD		TBD	TACOM	Dec-98	Apr-00	10	183		No	
5. Environmental Control Unit												
FY 99		TBD		TBD	TACOM	Dec-98	Apr-00	10	41		No	
6. Bio Chem Unit												
FY 99		TBD		TBD	TACOM	Dec-98	Apr-00	10	114		No	
8. Mission Module Components												
FY 97		L3 Comm. Sys, Camden,NJ		FP-Op	CECOM	Feb-97	Apr-98	5	255		No	
FY 98		L3 Comm. Sys, Camden,NJ		FP-Op	CECOM	Dec-97	Apr-99	5	231		No	
FY 99		L3 Comm. Sys, Camden,NJ		FP-Op	CECOM	Dec-98	Apr-00	10	191		No	
9. Veh Inter/Intra Communication System (VIICS)												
FY 97		L3 Comm. Sys, Camden, NJ		FP	CECOM	Feb-97	Apr-98	5	56		No	
FY 98		L3 Comm. Sys, Camden, NJ		FP	CECOM	Dec-97	Apr-99	5	51		No	
FY 99		L3 Comm. Sys, Camden, NJ		FP	CECOM	Dec-98	Apr-00	10	47		No	
REMARKS: L3 Comm. Sys, Camden, NJ - L3 Communications Systems, Camden, NJ FY98: High Vehicle and Transmission cost reflects reduced business base. FY99: Breakout of Primary Power Unit, Environmental control Unit, and Bio Chem Unit.												

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:		P-1 Item Nomenclature:											
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles		CARRIER, MOD (GB1930)											
Program Elements for Code B Items:		Other Related Program Elements:											
		Code: A											
	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	566.7	53.1	43.7	44.7	39.4	54.5	59.4	53.6	73.6	86.1	816.3	1890.9	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	566.7	53.1	43.7	44.7	39.4	54.5	59.4	53.6	73.6	86.1	816.3	1890.9	
Initial Spares	3.5											3.5	
Total Proc Cost	570.2	53.1	43.7	44.7	39.4	54.5	59.4	53.6	73.6	86.1	816.3	1894.4	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: The M113 Family of Vehicles (FOV) consists of over 18,000 vehicles, 16 different variants/platforms, in service in U.S. Army units. The M113 FOV is almost one half of the tracked combat vehicle fleet in a mechanized infantry or armor heavy division. The family provides transport for troops, anti-tank, fire direction, smoke, mortar, cargo carrier and command & control systems. The fleet is required for the next 20 plus years and must be modified to increase mobility, survivability and to install operational enhancements. Operation Desert Storm (ODS) highlighted the need to improve the mobility and survivability, chemical protection, driver's night vision, fuel system for Command Post Auxiliary Power Units (APU) for the fleet.

JUSTIFICATION:

- 1. BLOCK 1 (A3) MODIFICATION:** Provides improvements to enhance mobility and crew survivability. Provides a new 275 Horse Power (HP) turbocharged engine coupled with a new transmission. This powertrain replaces less reliable components and results in reduced O&S costs while increasing mobility to keep up with the M1 and BFVS fleet. Internal spall suppression liners, external armored fuel tanks and external armor mounting provisions increase crew survivability. The intent is to convert vehicles at depot or contractor facilities to the A3 configuration, in the Department of the Army Master Priority List (DAMPL) sequence.
- 2. CREW CHEMICAL PROTECTION:** Provides mounting provisions and hardware and the complete M8, M13 or M14 Nuclear, Biological and Chemical (NBC) System tailored for installation into each M113 variant. The installed system includes blowers, filters, and air line heaters for use with crew issued ventilated face masks. The installed system permits vehicle operation in an NBC environment. Prior to FY98 only mounting provisions were installed during vehicle conversions to the A3 configuration. The intent is to install the complete system during future A3 conversions. Vehicle conversions will be done in Department of the Army Master Priority List (DAMPL) sequence.

INDIVIDUAL MODIFICATION												Date	February 1998								
MODIFICATION TITLE: Crew Chemical Protection 1-91-05-4311																					
MODELS OF SYSTEMS AFFECTED: M113A3, M577A3, M1068A3																					
DESCRIPTION / JUSTIFICATION: Provides mounting provisions and hardware and the complete M8, M13 or M14 Nuclear, Biological and Chemical (NBC) System tailored for installation into each M113 variant. The installed system includes blowers, filters, air line heaters and hoses for use with crew issued ventilated face masks. The installed system permits vehicle operation in an NBC environment. Prior to FY 98 only mounting provisions were installed during vehicle conversions to the A3 configuration. The intent is to install complete system during future A3 conversions. Vehicle conversions to be done in the Department of the Army Master Priority List (DAMPL) sequence.																					
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																					
<u>PLANNED</u> <u>ACCOMPLISHED</u>																					
TDP Available: February 92																					
Installation Schedule:																					
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Totals																					
Inputs																					
Outputs																					
Installation Schedule:																					
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete				
Inputs	50	51	51	51	60	60	60	60	60	60	60	60	60	60	60	60	3391				
Outputs	46	50	51	51	60	60	60	60	60	60	60	60	60	60	60	60	3391				
METHOD OF IMPLEMENTATION: Depot/Contractor														ADMINISTRATIVE LEADTIME: 3 Months				PRODUCTION LEADTIME: 10 Months			
Contract Dates: FY 1997														FY 1998				January 98			
Delivery Date: FY 1997														FY 1998				October 98			

INDIVIDUAL MODIFICATION															Date		February 1998		
MODIFICATION TITLE (Cont):															Crew Chemical Protection 1-91-05-4311				
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	\$	
RDT&E																			
PROCUREMENT																			
Kit Quantity			240	0.6	216	0.6	181	0.5	203	0.6	240	0.8	240	0.8	3391	16.9	4711	20.8	
Installation Kits																			
Installation Kits, Nonrecurring																			
Equipment																			
Equipment, Nonrecurring																			
Engineering Change Orders																			
Data																			
Training Equipment																			
Support Equipment																			
Other																			
Interim Contractor Support																			

INDIVIDUAL MODIFICATION																																																																																																																																								
										Date	February 1998																																																																																																																													
MODIFICATION TITLE: Block 1 1-84-05-4026																																																																																																																																								
MODELS OF SYSTEMS AFFECTED: M113A2, M577A2, M981, M1059, M1064, M1068, OSV, M58																																																																																																																																								
DESCRIPTION / JUSTIFICATION: Provides improvements to enhance mobility and crew survivability. Provides a new 275 Horse Power (HP) turbocharged engine coupled with a new transmission. This powertrain replaces less reliable components and results in reduced O&S costs while increasing mobility to keep up with the M1 and BFVS fleet. Internal spall suppression liners, external armored fuel tanks and external armor mounting provisions increase crew survivability. The intent is to convert vehicles at depot or contractor facilities to the A3 configuration, in the Department of the Army Master Priority List (DAMPL) sequence.																																																																																																																																								
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <u>PLANNED</u> <u>ACCOMPLISHED</u>																																																																																																																																								
IPR Production Decision: May 86																																																																																																																																								
TDP Available: June 86																																																																																																																																								
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="4"></td> </tr> <tr> <td>Outputs</td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="4"></td> </tr> <tr> <td>Totals</td> <td>379</td><td></td><td></td><td></td> <td>154</td><td>164</td><td>174</td><td>155</td> <td>60</td><td>60</td><td>60</td><td>60</td> <td>60</td><td>60</td><td>60</td><td>60</td> <td>54</td><td>54</td><td>54</td><td>54</td> </tr> <tr> <td></td> <td>379</td><td></td><td></td><td></td> <td>134</td><td>149</td><td>150</td><td>149</td> <td>99</td><td>60</td><td>60</td><td>60</td> <td>60</td><td>60</td><td>60</td><td>60</td> <td>54</td><td>54</td><td>54</td><td>54</td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																					Totals	379				154	164	174	155	60	60	60	60	60	60	60	60	54	54	54	54		379				134	149	150	149	99	60	60	60	60	60	60	60	54	54	54	54
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																																							
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	46	50	51	51	60	60	60	60	60	60	60	60	60	60	60	60	2168	4645																																																																																																																						
METHOD OF IMPLEMENTATION: Depot/Contractor ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 10 Months																																																																																																																																								
Contract Dates: FY 1997 March 97 FY 1998 January 98 FY 1999 January 99																																																																																																																																								
Delivery Date: FY 1997 June 97 FY 1998 October 98 FY 1999 October 99																																																																																																																																								

INDIVIDUAL MODIFICATION																				
Block 1 1-84-05-4026																				
MODIFICATION TITLE (Cont):																				
FINANCIAL PLAN: (\$ in Millions)																				
FY 1996 and Prior Qty	FY 1996 \$	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	\$	
RDT&E PROCUREMENT Kit Quantity Installation Kits Installation Kits, Nonrecurring Equipment Equipment, Nonrecurring Engineering Change Orders Data Training Equipment Support Equipment Other Interim Contractor Support Pre-Conversion FDT TPF	2030	223.4	304	31.2	240	25.9	216	21.1	181	22.6	203	25.4	240	35.8	240	36.3	2168	339.1	5822	760.8
		3.4																		3.4
		40.2		2.0		2.3		3.6		4.3		4.4		4.6		5.0		46.7		113.1
		0.1		0.1		0.5		19.5		22.2		14.4		22.1		32.1		290.0		400.3
		2.6		0.5		1.0		1.0		1.8		1.9		1.2		1.5		14.0		20.4
								1.3		1.8		1.9		2.1		2.3		21.5		35.0
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 Cost	379	7.2	474	9.9	304	8.7	240	7.1	216	6.8	181	5.8							853	17.1
																			304	8.7
																			240	7.1
																			216	6.8
																			181	5.8
																			203	6.8
																			240	7.9
																			240	7.9
																			240	7.9
																			2168	75.9
																		4645	144.0	
																			1477.0	

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles												FIST VEHICLE (MOD) (GZ2300)	
Program Elements for Code B Items:												Other Related Program Elements:	
0203735A													
	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					19	27	49	56	60	87	267	565	
Gross Cost	372.8	0.0	0.0	0.0	15.6	20.7	43.5	47.4	50.1	62.3	202.1	814.5	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	372.8	0.0	0.0	0.0	15.6	20.7	43.5	47.4	50.1	62.3	202.1	814.5	
Initial Spares													
Total Proc Cost	372.8	0.0	0.0	0.0	15.6	20.7	43.5	47.4	50.1	62.3	202.1	814.5	
Flyaway U/C													
Wpn Sys Proc U/C					.8	.8	.9	.8	.8	.7	.8		

DESCRIPTION: The Bradley Fire Support Vehicle (BFIST) integrates Mission Equipment Packages into a Bradley Fighting Vehicle to support heavy maneuver force operations. The BFIST replaces the aging M981 Fire Support Vehicle for fire mission planning, support and execution for maneuver company commanders. The Fire Support Team is attached to a mechanized infantry or armor company and is primarily responsible for developing and executing fire support plans that enable success on the battlefield. The BFIST allows fire support operations to be performed on the battlefield in vehicles with the same signature, survivability, and mobility as other Bradley maneuver units.

JUSTIFICATION: The current Fire Support Vehicle M981 was unable to maintain the operational tempo of Bradley /Abrams equipped maneuver forces during Operation Desert Storm (ODS). Additionally, the M981 displayed a number of operational deficiencies and shortcomings remedied by the BFIST design. The BFIST provides synchronization of combined arms operations.

Exhibit P-5. Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles			P-1 Line Item Nomenclature: FIST VEHICLE (MOD) (GZ2300)			Weapon System Type:			Date: February 1998		
WTCV			FY 96			FY 97			FY 98			FY 99		
Cost Elements			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Hardware Cost														
1. Vehicle Upgrade														
2. Pre-Mod Depot Maintenance														
SUBTOTAL														
Non Recurring Production														
3. Engineering Contractor														
4. Engineering Government														
5. Program Management Administration														
6. Reimbursable Matrix Support														
7. Fielding														
8. Refurbish Test Vehicles														
SUBTOTAL														
TOTAL														

Exhibit P-5a, Budget Procurement History and Planning										Date:	February 1998
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles			Weapon System Type:			P-1 Line Item Nomenclature: FIST VEHICLE (MOD) (GZ2300)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date	
1. Vehicle Upgrade FY 98 FY 99	UDLP, York, PA UDLP, York, PA	SS/FFP SS/FFP	USATACOM, Warren, MI USATACOM, Warren, MI	Dec-97 Nov-98	May-99 Jan-00	19 27	579 378				
REMARKS:											

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles												BFVS SERIES (MOD) (GZ2400)	
Program Elements for Code B Items:												Other Related Program Elements:	
Code:												A	
	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	503.1	90.2	88.6	113.6	60.0	59.0	1.7	7.4	4.0	7.6	0.0	935.2	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	503.1	90.2	88.6	113.6	60.0	59.0	1.7	7.4	4.0	7.6	0.0	935.2	
Initial Spares													
Total Proc Cost	503.1	90.2	88.6	113.6	60.0	59.0	1.7	7.4	4.0	7.6	0.0	935.2	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: The funds appropriated, budgeted, and programmed in this budget line will provide for the procurement and application of modification kits for the Bradley Fighting Vehicle. The Operation Desert Storm improvements are 6 ECPs which will correct deficiencies identified in Operation Desert Storm and include: Laser Range Finder, Position Navigation System, Equipment Restow Improvement, Combat Identification System, Drivers Vision Enhancer and Missile Countermeasure Device. The A1 to A2 conversion effort increases the vehicle survivability and brings the vehicle up to the current A2 configuration, with the addition of the High Survivability Kit and the 600HP power pack. Operational improvements are the Transmission Electronic Controller, the Armament Control Unit Pillow Block, the Vehicle Intercommunications System, and Armor Tiles. One safety mod, the A2 Card Retrofit, will prevent inadvertent TOW missile launch. The A2 ODS Applique(+) modification will integrate Bradley Fighting Vehicles with the Army's Applique computer system to improve situational awareness. Additionally, there is the Presidentially directed HALON Replacement Program. Most of these modifications will be applied concurrently in "blocks" to reduce application cost and inconvenience to the unit.

JUSTIFICATION: The programs in these P-Forms were initiated to meet requirements identified to correct deficiencies identified in Operation Desert Storm and to improve the lethality, survivability, mobility and situational awareness of the Bradley Fighting Vehicle. Reduced Bradley Fighting Vehicle capability, survivability, and mobility will occur if these modifications are delayed or reduced.

Exhibit P-40M Budget Item Justification Sheet											
Appropriation / Budget Activity/Serial No.				Date				February 1998			
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles				P-1 Item Nomenclature				BFVS SERIES (MOD) (GZ2400)			
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
A1--A2 Conversion											
1-84-05-4038	Oper. Capability	347.3	16.4	16.8	13.6	0.0	0.0	0.0	0.0	0.0	394.1
A2 ODS Mods											
1-92-05-4404	Oper. Capability	67.2	49.6	28.9	31.9	1.6	0.0	0.0	0.0	0.0	179.2
Transmission Electronic Controller (TEC)											
1-90-05-4282	Oper. Capability	5.8	4.1	3.6	0.0	0.0	0.0	0.0	0.0	0.0	13.5
ACU Pillow Block Mod											
1-91-05-4314	Oper. Capability	5.8	0.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	7.2
Vehicle Intercom System											
1-90-05-4284	Oper. Capability	8.4	3.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	15.3
DECA											
1-93-05-4441	Oper. Capability	11.5	5.7	1.4	2.5	0.0	0.0	0.0	0.0	0.0	21.1
HALON Replacement											
1-92-05-4422	Legisl. Compliance	3.7	0.6	4.7	0.1	0.1	0.0	0.0	0.0	0.0	9.2
Armor Tiles											
1-84-05-4038	Oper. Capability	40.6	32.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.3
A2 Card Retrofit											
1-96-05-4517	safety	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Suite of Survivability Enhancement Systems (No P3a Set)											
1-96-05-4514	Oper. Capability	0.0	0.0	0.0	0.0	0.0	7.4	4.0	7.6	0.0	19.0
A2 ODS Applique											
1-98-05-4539	Operational Capability	0.0	0.0	0.0	10.9	0.0	0.0	0.0	0.0	0.0	10.9
Totals											
		490.3	113.6	60.0	59.0	1.7	7.4	4.0	7.6	0.0	743.6

INDIVIDUAL MODIFICATION												Date	February 1998		
MODIFICATION TITLE: A1-A2 Conversion 1-84-05-4038															
MODELS OF SYSTEMS AFFECTED: M2A1 (IFV) / M3A1 (CFV)															
DESCRIPTION / JUSTIFICATION: The BFVS conversion effort converts the A1 configuration to an A2 configuration. The conversion effort includes: 1. High Survivability (HS) Kit which will enhance vehicle survivability through the application of alternate armor and selective use of crew compartment spall liners for increased protection against threat from frontal attack. The HS kit also contains other associated changes such as restowage, swim curtain, IFV firing ports, and M240 gun upright. 2. The 600HP power pack, which includes the 600 HP engine and the reliability improved 500-3 Transmission which eliminates the adverse impact of increased vehicle weight on vehicle performance and reliability, resulting from High Survivability changes.															
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:												PLANNED		ACCOMPLISHED	
Preliminary Design Review: NA Critical Design Review: NA Contractor Test and Evaluation: NA Development Test and Evaluation: NA Initial Operational Test and Evaluation: NA IPR Production Decision: 3Q89 TDP Available: 3Q89															
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		
Inputs		938	42	42	42	42	42	42	42	42	42	42	42		
Outputs		896	42	42	42	42	42	42	42	42	42	42	42		
Totals		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		Totals			
Inputs		1	2	3	4	1	2	3	4	1	2	3	4		
Outputs		1358	42	42	42	42	42	42	42	42	42	42	42		
METHOD OF IMPLEMENTATION: Depot Conversion ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months															
Contract Dates: FY 1997 Jan 97 FY 1998 FY 1999 FY 1999															
Delivery Date: FY 1997 Jan 98 FY 1998 FY 1999															

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont): A1-A2 Conversion 1-84-05-4038													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E		115.6											115.6
PROCUREMENT													
Kit Quantity													
Installation Kits													
Installation Kits Nonrecurring													
600 HP Engine	1317	45.6	41	1.9									47.5
500-3 Transmission	1358	39.2											39.2
High Survivability kits	1358	187.9		2.5									190.4
Engineering Change Orders		0.9											0.9
Training Equipment													
Support Equipment													
Other		1.6		0.8									2.5
Interim Contractor Support						6.2							6.2
Pre-mod Depot Maintenance													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits	977	72.1	136	11.2	168	16.8	36	3.4					103.5
FY 1997 Eqpt -- Kits							41	3.9					3.9
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	977	72.1	136	11.2	168	16.8	77	7.3					107.4
Total Procurement Cost		347.3		16.4		16.8		13.6					394.1

INDIVIDUAL MODIFICATION																																																																																										
MODIFICATION TITLE: A2 ODS Mods 1-92-05-4404										Date																																																																																
MODELS OF SYSTEMS AFFECTED: M2A2/M3A2										February 1998																																																																																
DESCRIPTION / JUSTIFICATION:																																																																																										
Six vehicle improvements (ECP's) which will correct deficiencies identified in Operation Desert Storm. These increase vehicle lethality and survivability and situational awareness. Additionally, included in this effort are Armored Hatches to further improve vehicle survivability. a. Laser Range Finder: will give the BFVS a first burst on target capability and reduce the time required to acquire and kill a target. b. Position Navigation System: Global Positioning System (GPS) integrating hardware and a self calibrating digital compass. This will enable the Bradley commander to determine his exact location at all times and determine the heading and distance to any location. c. Equipment Restow Improvement: Improves the method of stowing internal and external equipment. d. Combat Identification System (CID): Provides integration hardware for the passive CID system that will provide visual and thermal signatures detectable between ground to ground vehicles and from air to ground. e. Driver's Thermal Viewer: Increases the driver's ability to see through battlefield obscurants such as dust, fog and smoke during night and day. f. Missile Countermeasure Device: Provides additional protection against a variety of anti tank missiles.																																																																																										
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																										
ACCOMPLISHED						PLANNED																																																																																				
Preliminary Design Review: 4Q93 Critical Design Review: 2Q94 Contractor Test and Evaluation: 3Q94 Development Test and Evaluation: 4Q94 Initial Operational Test and Evaluation: 1Q95 IPR Production Decision: 2Q95																																																																																										
Installation Schedule:																																																																																										
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Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001																																																																													
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3																																																																											
Totals	26	93	124	124	95	115	104	147	72	57	89	126	105	17	17																																																																											
Inputs	26	93	124	124	95	115	104	147	72	57	89	126	105	17	17																																																																											
Outputs																																																																																										
<table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <tr> <th rowspan="2"></th> <th colspan="3">FY 2002</th> <th colspan="3">FY 2003</th> <th colspan="3">FY 2004</th> <th colspan="3">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th> <th>3</th><th>4</th><th>1</th><th>2</th><th>3</th> <th>4</th><th>To</th><th>Complete</th> </tr> <tr> <td>Inputs</td> <td>15</td><td>14</td><td>14</td> <td>14</td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td> <td></td><td></td><td>1493</td> </tr> <tr> <td>Outputs</td> <td>15</td><td>14</td><td>14</td> <td>14</td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td> <td></td><td></td><td>1493</td> </tr> </table>													FY 2002			FY 2003			FY 2004			FY 2005			Totals		1	2	3	4	1	2	3	4	1	2	3	4	To	Complete	Inputs	15	14	14	14										1493	Outputs	15	14	14	14										1493																				
	FY 2002			FY 2003			FY 2004			FY 2005			Totals																																																																													
	1	2	3	4	1	2	3	4	1	2	3	4	To	Complete																																																																												
Inputs	15	14	14	14										1493																																																																												
Outputs	15	14	14	14										1493																																																																												
METHOD OF IMPLEMENTATION:																																																																																										
Contr/Dpot/Field ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months																																																																																										
Contract Dates: FY 1997 Jan 97 FY 1998 Jan 98 FY 1999 Jan 99																																																																																										
Delivery Date: FY 1997 Jan 98 FY 1998 Jan 99 FY 1999 Jan 00																																																																																										

INDIVIDUAL MODIFICATION													
A2 ODS Mods 1-92-05-4404													
MODIFICATION TITLE (Cont):													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RD&E													
PROCUREMENT													
Kit Quantity	690	63.3	415	45.3	215	28.9	173	25.5					1493
Installation Kits													163.1
Installation Kits, Nonrecurring													
Equipment													
Equipment, Nonrecurring		1.9											1.9
Engineering Change Orders													
Data													
Training Equipment													
Support Equipment		0.2											0.2
Other													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits	193	1.8	356	4.2									549
FY 1997 Eqpt -- Kits													6.0
FY 1998 Eqpt -- Kits													
FY 1999 Eqpt -- Kits							122	6.4	116	1.6			122
FY 2000 Eqpt -- kits													6.4
FY 2001 Eqpt -- kits													116
FY 2002 Eqpt -- kits													1.6
FY 2003 Eqpt -- kits													
TC Equip-Kits													
Total Installment	193	1.8	356	4.2			122	6.4	116	1.6			787
Total Procurement Cost		67.2		49.6		28.9		31.9		1.6			179.2

NOTE: Application quantities and costs reflect kits applied by field retrofit only. Costs for ODS application during AO-A2 remanufacture and A1-A2 conversion are reflected on their respective P-forms.

INDIVIDUAL MODIFICATION																								
														Date										
February 1998																								
MODIFICATION TITLE: Transmission Electronic Controller (TEC) 1-90-05-4282																								
MODELS OF SYSTEMS AFFECTED: M2A2/M3A2																								
DESCRIPTION / JUSTIFICATION: The Transmission Electronic Controller (TEC) replaces the hydromechanical transmission control with an electromechanical control. The TEC directly improves transmission maintainability and reliability. The control features of TEC will provide improved acceleration, fuel utilization and hot and cold performance, and better low speed maneuverability.																								
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: IPR Production Decision: 2Q94 TDP Available: 2Q94																								
Installation Schedule:																								
Inputs Outputs	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			
	26	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61			
Inputs Outputs	Totals	26	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61			
	26	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61			
	820	820	820	820	820	820	820	820	820	820	820	820	820	820	820	820	820	820	820	820	820			
METHOD OF IMPLEMENTATION: Contr/depot/field ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 8 Months																								
Contract Dates: FY 1997 Dec 97 FY 1998 Dec 98 FY 1999 Aug 99																								
Delivery Date: FY 1997 Aug 98 FY 1998 Aug 99 FY 1999 Aug 99																								

INDIVIDUAL MODIFICATION													
Transmission Electronic Controller (TEC) 1-90-05-4282													
MODIFICATION TITLE (Cont):													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity													
Installation Kits	333	5.8	256	4.1	231	3.6							820
Installation Kits, Nonrecurring Equipment													
Equipment, Nonrecurring Engineering Change Orders													
Data													
Training Equipment													
Support Equipment													
Other													
Interim Contractor Support													
NOTE: Application is budgeted as part of the A2 ODS program													
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 Cost		5.8		4.1		3.6							13.5

INDIVIDUAL MODIFICATION												Date	February 1998
MODIFICATION TITLE: ACU Pillow Block Mod 1-91-05-4314													
MODELS OF SYSTEMS AFFECTED: TOW 2 SUBSYSTEM													
DESCRIPTION / JUSTIFICATION: This block modification combines 5 class 1 ECPs into a consolidated block ACU package. The ACU is part of the TOW missile launcher. These modifications will seal against moisture and eliminate pillow block associated damage to the ACU which can result in critical failures of the TOW weapon system package.													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Planned NA NA NA NA NA NA 1Q92 NA Accomplished NA NA NA NA NA NA 1Q92 NA													
Installation Schedule:													
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001			
Pr Yr		1	2	3	4	1	2	3	4	1	2	3	4
Totals		1874	334	334	333	267	266	267	266				
Inputs		1874	334	334	333	267	266	267	266				
Outputs													
		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		Totals	
1		2	3	4	1	2	3	4	1	2	3	4	Complete
Inputs													
Outputs													4275
METHOD OF IMPLEMENTATION: Contractor teams ADMINISTRATIVE LEADTIME: PRODUCTION LEADTIME:													
Contract Dates:		FY 1997		Mar 97		FY 1998		Mar 98		FY 1999		FY 1999	
Delivery Date:		FY 1997		N/A		FY 1998		N/A		FY 1999		FY 1999	

INDIVIDUAL MODIFICATION																				
ACU Pillow Block Mod 1-91-05-4314																				
MODIFICATION TITLE (Cont):																				
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	4275	4.5																	4275	4.5
Installation Kits																				
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	1874	1.3	1335	0.9	1066	0.6													4275	2.8
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	1874	1.3	1335	0.9	1066	0.6													4275	2.8
Total Procurement Cost		5.8		0.9		0.6														7.2

INDIVIDUAL MODIFICATION												Date	February 1998		
MODIFICATION TITLE: Vehicle Intercom System 1-90-05-4284															
MODELS OF SYSTEMS AFFECTED: A2 ODS M2/M3															
DESCRIPTION / JUSTIFICATION: The VIS system is a replacement for the AN/VIC-1 intercom system. It is a digital intercom system which provides internal communications as well as access to the vehicle radios. This is a non-developmental item to be applied to the A2 ODS vehicles.															
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:												<u>PLANNED</u>		<u>ACCOMPLISHED</u>	
Preliminary Design Review: NA Critical Design Review: NA Contractor Test and Evaluation: NA Development Test and Evaluation: NA Initial Operational Test and Evaluation: 2Q95 IPR Production Decision 3Q95 TDP Available: NA															
Installation Schedule:															
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001					
Pr Yr		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4					
Totals		26 49 49 80		78 38 57 46		88 72 57 89		126 105 105 126		126 105 105 126					
Inputs		26		49		49		80		78		38			
Outputs		26		49		49		80		78		38			
Installation Schedule:															
		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006					
Pr Yr		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4					
Totals		26 49 49 80		78 38 57 46		88 72 57 89		126 105 105 126		126 105 105 126					
Inputs		26		49		49		80		78		38			
Outputs		26		49		49		80		78		38			
METHOD OF IMPLEMENTATION: Contractor/Depot ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months															
Contract Dates: FY 1997 Mar 97 FY 1998 Mar 98 FY 1999 Mar 99															
Delivery Date: FY 1997 Sep 97 FY 1998 Sep 98 FY 1999 Sep 99															

INDIVIDUAL MODIFICATION													
MODIFICATION TITLE (Cont):												Date	February 1998
Vehicle Intercom System 1-90-05-4284													
FINANCIAL PLAN: (\$ in Millions)													
RDT&E	FY 1996 and Prior	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002	
		Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PROCUREMENT													
Kit Quantity													
Installation Kits	553	8.4	262	3.0	145	3.9							
Installation Kits, Nonrecurring													
Equipment													
Equipment, Nonrecurring													
Engineering Change Orders													
Data													
Training Equipment													
Support Equipment													
Other													
Interim Contractor Support													
APPLICATION SCHEDULED AND BUDGETED AS PART OF A2ODS PROGRAM													
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 Installation													
Total Procurement Cost		8.4	3.0		3.9								15.3

INDIVIDUAL MODIFICATION																																																																																																																			
										Date	February 1998																																																																																																								
MODIFICATION TITLE: DECA 1-93-05-4441																																																																																																																			
MODELS OF SYSTEMS AFFECTED: M2A2/M3A2																																																																																																																			
DESCRIPTION / JUSTIFICATION: The DECA is the microprocessor based controller of the turret drive system. It transfers signals from crew and sensor inputs to the appropriate subsystem to execute a specific task. The DECA replaces the Electronic Control Assembly (ECA) and provides built in testing, improved reliability and elimination of hull and turret gyro.																																																																																																																			
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Preliminary Design Review: NA Critical Design Review: NA Contractor Test and Evaluation: NA Development Test and Evaluation: NA Initial Operational Test and Evaluation: NA IPR Production Decision: 3Q89 TDP Available: 3Q89 PLANNED ACCOMPLISHED																																																																																																																			
Installation Schedule:																																																																																																																			
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Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Inputs	26	49	49	80	78	38	57	46	88	72	57	50	85	66																																																																																																					
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Inputs	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To																																																																																																	
Inputs	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																			
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METHOD OF IMPLEMENTATION: Contractor & Depot ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 8 Months																																																																																																																			
Contract Dates: FY 1997 Jan 97 FY 1998 Jan 98 FY 1999 Jan 99																																																																																																																			
Delivery Date: FY 1997 Sep 97 FY 1998 Sep 98 FY 1999 Sep 99																																																																																																																			

INDIVIDUAL MODIFICATION													
MODIFICATION TITLE (Cont): DECA 1-93-05-4441													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity													
Installation Kits													
Installation Kits, Nonrecurring													
Equipment	450	11.5	233	5.7	58	1.4	100	2.5					841
Equipment, Nonrecurring													
Engineering Change Orders													
Data													
Training Equipment													
Support Equipment													
Other													
Interim Contractor Support													
APPLICATION BUDGETED AS PART OF A1-A2 CONVERSION AND A2 ODS APPLICATION													
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		11.5		5.7		1.4		2.5					21.1
Total Procurement Cost													

INDIVIDUAL MODIFICATION																																																																																																																																																																																																																																																																																																
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														February 1998																																																																																																																																																																																																																																																																																		
MODIFICATION TITLE: HALON Replacement 1-92-05-4422																																																																																																																																																																																																																																																																																																
MODELS OF SYSTEMS AFFECTED: Bradley Fighting Vehicle System																																																																																																																																																																																																																																																																																																
DESCRIPTION / JUSTIFICATION: The Halon replacement program is in response to DOD and Army policy to eliminate the unnecessary release of Halon into the atmosphere. This program will provide an alternate agent to use in the BFV engine compartment fire extinguishers.																																																																																																																																																																																																																																																																																																
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Preliminary Design Review: Critical Design Review: Contractor Test and Evaluation: Development Test and Evaluation: Initial Operational Test and Evaluation: IPR Production Decision Approve ECP: 3Q95 4Q96 NA 4Q96 NA 2Q98 2Q98																																																																																																																																																																																																																																																																																																
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HALON Replacement 1-92-05-4422

MODIFICATION TITLE (Cont):

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					6720	4.4													6720	4.4
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring Engineering Change Orders						0.3														0.3
Data																				
Training Equipment						0.6														4.3
Support Equipment																				
Other																				
Interim Contractor Support																				
NOTE: Installation quantity and cost reflect field retrofit only. Applications occurring during A1-A2 conversion, A0-A2 remanufacture and ODS field retrofit are reflected on their respective P-Forms.																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits					160	0.0	2835	0.1	2835	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 Installation					160	0.0	2835	0.1	2835	0.1									5630	0.2
Total Procurement Cost						4.7		0.1		0.1										9.2
	3.7			0.6																

INDIVIDUAL MODIFICATION																																																																																																																						
														Date																																																																																																								
														February 1998																																																																																																								
MODIFICATION TITLE: Armor Tiles 1-84-05-4038																																																																																																																						
MODELS OF SYSTEMS AFFECTED: M2A2(IFV)/M3A2(CFV)																																																																																																																						
DESCRIPTION / JUSTIFICATION: Armor tiles are one of the High Survivability improvements to the BFVS. The tiles provide increased armor protection for shaped charge threats, including hand held heat and other classes of warheads as specified in the BFVS material need area. There are 5 configurations of tiles covering the vehicle front, sides and turret.																																																																																																																						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Preliminary Design Review: NA Critical Design Review: 3Q90 Contractor Test and Evaluation: NA Development Test and Evaluation: NA Initial Operational Test and Evaluation: NA IPR Production Decision: 2Q92 TDP Available: NA PLANNED NA 3Q90 NA NA NA 2Q92 NA ACCOMPLISHED																																																																																																																						
Installation Schedule:																																																																																																																						
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Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																					
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Inputs																																																																																																																						
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METHOD OF IMPLEMENTATION: Troop installed Contract Dates: FY 1997 Sep 97 Delivery Date: FY 1997 Jan 99																																																																																																																						
ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months FY 1998 FY 1999																																																																																																																						

INDIVIDUAL MODIFICATION																				
Armor Tiles 1-84-05-4038																				
MODIFICATION TITLE (Cont):																				
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		4.0																		4.0
PROCUREMENT																				
Kit Quantity																				
Installation Kits	136	34.3	110	23.5															246	57.7
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring Engineering Change Orders				0.5																0.5
Data																				
Training Equipment																				
Support Equipment																				
Other		6.3		8.8																15.1
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 Installation				32.7																73.3
Total Procurement Cost		40.6																		

INDIVIDUAL MODIFICATION																																																																																																																																																						
										Date	February 1998																																																																																																																																											
MODIFICATION TITLE: A2 ODS Applique 1-98-05-4539																																																																																																																																																						
MODELS OF SYSTEMS AFFECTED: Bradley Fighting Vehicle Systems																																																																																																																																																						
DESCRIPTION / JUSTIFICATION: <u>ODS Vehicle Applique:</u> For Force XXI and the First Digitized Division, the Bradley Infantry vehicles will be integrated with the Army's Applique (+) computer system. The integration kit will include mounting the flat panel display, keyboard and CPU inside of the Bradley Turret and interfacing the vehicle systems (Bradley Eyesafe Laser Rangefinder and Position/Navigation System) to to applique (+) to provide Laser Designation and Steer-to capability. The Bradley Infantry variant will also include an additional display in the hull for squad situational awareness and an external turret mounted display for the Bradley commander's awareness while commanding from a "name tag defilade" position. <u>M2A3 Vehicle Applique:</u> M2A3 will incorporate the Army's embedded Battle Command Software into the vehicle's turret computer to ensure interoperability with FBCB2. PM Bradley jointly with PM Abrams is working a common integration approach that consists of utilizing the GCSS common processor card (Power PC-VME card). This will be an additional processor card required for the M2A3 to incorporate EBC.																																																																																																																																																						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> PLANNED Preliminary Design Review: 7/95 Critical Design Review: 1/96 LUT: 9/98 IOT&E: 10/99 MS III: 11/99 </td> <td style="width: 50%; vertical-align: top;"> ACTUAL 7/95 1/96 </td> </tr> </table>												PLANNED Preliminary Design Review: 7/95 Critical Design Review: 1/96 LUT: 9/98 IOT&E: 10/99 MS III: 11/99	ACTUAL 7/95 1/96																																																																																																																																									
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Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th rowspan="2">Pr Yr</th> <th colspan="3">FY 1997</th> <th colspan="3">FY 1998</th> <th colspan="3">FY 1999</th> <th colspan="3">FY 2000</th> <th colspan="3">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th> <th>3</th><th>4</th><th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th><th>3</th> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>126</td><td>23</td><td>23</td><td>23</td> </tr> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>126</td><td>23</td><td>23</td><td>23</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th rowspan="2">Pr Yr</th> <th colspan="3">FY 2002</th> <th colspan="3">FY 2003</th> <th colspan="3">FY 2004</th> <th colspan="3">FY 2005</th> <th colspan="3">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th> <th>3</th><th>4</th><th>1</th><th>2</th><th>3</th> <th>4</th><th>Complete</th><th>195</th> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>195</td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>195</td> </tr> </table>												Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	Inputs																Outputs												126	23	23	23	Totals												126	23	23	23	Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			Totals			1	2	3	4	1	2	3	4	1	2	3	4	Complete	195	Inputs														195	Outputs														195
Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001																																																																																																																																									
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3																																																																																																																																							
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Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			Totals																																																																																																																																									
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Inputs														195																																																																																																																																								
Outputs														195																																																																																																																																								
METHOD OF IMPLEMENTATION: Contractor applied ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 12 Months Contract Dates: FY 1997 FY 1998 FY 1999 Jun 99 Delivery Date: FY 1997 FY 1998 FY 1999 Jun 00																																																																																																																																																						

INDIVIDUAL MODIFICATION																			
A2 ODS Applique 1-98-05-4539																			
MODIFICATION TITLE (Cont):																			
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																			
ODS Installation Kits																			
ODS Nonrecurring																			
A3 Installation Kits																			
A3 Nonrecurring																			
Engineering Change Orders																			
Data																			
Training Equipment																			
Support Equipment																			
Other																			
Interim Contractor Support																			
NOTE: Application costs are included in procurement cost.																			
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 Cost																			

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles												P-1 Item Nomenclature:
Program Elements for Code B Items:												HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400)
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	698.5	226.9	282.0	95.4	72.8	11.3	9.1	5.5	0.1	0.0	9.5	1411.2
Less PY Adv Proc	16.3											16.3
Plus CY Adv Proc	16.3											16.3
Net Proc (P-1)	698.5	226.9	282.0	95.4	72.8	11.3	9.1	5.5	0.1	0.0	9.5	1411.2
Initial Spares	1.6	1.9	2.4	6.4	3.6							15.9
Total Proc Cost	700.1	228.8	284.4	101.8	76.4	11.3	9.1	5.5	0.1	0.0	9.5	1427.1
Flyaway U/C												
Wpn Sys Proc U/C												
DESCRIPTION:												
Funds the procurement of approved modifications to the 155MM M109 Self-Propelled Howitzer. The fiscal program identified herein reflects the economies and efficiencies of a competitive multiyear contract strategy. (See detailed description/justification on following exhibit P-3A) COOPERATIVE AGREEMENTS: The Government of the United States of America, as represented by the Department of the Army (DA), and the Government of Israel (GOI), as represented by the Ministry of Defense (MOD), agreed to cooperate on a joint development project to improve the M109 Series 155mm Self-Propelled Howitzer in November 1985. This program incorporated already developed items, together with items which were developed under contract, into prototype M109s. DA and MOD supplied their own M109s for prototype work. GOI funding for its share of the program was \$30.7 million over Fiscal Years (FY) 1986-1990. The U.S. Howitzer is currently in the full scale production phase and has been named the M109A6 Paladin. The U.S./Israeli Joint Development Agreement has expired effective with the Paladin Milestone III Full Scale Production Decision. The system developer, BMY, a Division of Harsco Corporation, was awarded a full scale engineering development contract in October 1985, and a low rate production contract in September 1990. In April 1993, FMC Corporation (now known as United Defense, Limited Partnership, Paladin Production Division) won a competitive multiyear procurement contract for full scale production of remaining Paladin requirements during FY 1993-1996 programs.												

Exhibit P-40M Budget Item Justification Sheet

Date _____

February 1998

Appropriation / Budget Activity/Serial No.

P-1 Item Nomenclature

PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles

HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400)

Program Elements for Code B Items

Code

Other Related Program Elements

Fiscal Years

Description

OSIP NO.	Classification
----------	----------------

Howitzer Improvement Program

1-81-05-1002 unclassified

Chlorofluorocarbon (CFC) Elimination

1-96-05-1003 unclassified

Totals

OSP NO.	Classification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
Howitzer Improvement Program											
1-81-05-1002	unclassified	1,207.4	95.4	66.5	11.3	9.1	5.5	0.1	0.0	0.0	1,399
Chlorofluorocarbon (CFC) Elimination											
1-96-05-1003	unclassified	0.0	0.0	6.3	0.0	0.0	0.0	0.0	0.0	9.5	11
Totals		1,207.4	95.4	72.8	11.3	9.1	5.5	0.1	0.0	9.5	1,410

[illegible]

unclassified	0.0	6.3	0.0	0.0	9.5	15.8
1-96-05-1003	unclassified	0.0	0.0	0.0	0.0	0.0
Emilio-Gonzalez (G. S.)	unclassified	0.0	0.0	0.0	0.0	0.0

Totals	1,207.4	95.4	72.8	11.3	9.1	5.5	0.1	0.0	9.5	1,411.1
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INDIVIDUAL MODIFICATION												Date	February 1998																																																																																										
MODIFICATION TITLE: Howitzer Improvement Program 1-81-05-1002																																																																																																							
MODELS OF SYSTEMS AFFECTED: Howitzer, MED Sp Ft 155mm M109 Ser (Mod) (MYP)																																																																																																							
DESCRIPTION / JUSTIFICATION: The M109A6 Paladin, approved for full scale production, has been designed to upgrade the M109A2/A3 Howitzer's responsiveness, effectiveness, survivability; and Reliability, Availability, and Maintainability-Durability (RAM-D). This meets the user's urgent need for a product improved system that satisfies the deficiencies cited in these areas by the Mission Element Need Statement (MENS), approved by the Secretary of Defense in December 1980. The production phase of the program involves a combined effort between Letterkenny Army Depot and the contractor. M109A2/A3 Howitzers from CONUS and OCONUS field units are being shipped to Letterkenny Army Depot. Letterkenny removes traverse mechanism, disassembles the howitzer, reconditions turret components to be reset in the new turret, and overhauls/ modifies the chassis to the Paladin configuration. The reconditioned turret components, and the overhauled/modified chassis with the new M284 Cannon and M182 Gun Mount manufactured by Watervliet and Rock Island Arsenal, respectively, are shipped to the contractor for final integration and assembly, and acceptance testing. The acquisition strategy for FY89/90-FY92 called for sole source contracts. An FY93-FY96 competitive multiyear production contract was awarded to UDLP in April 1993. In April 1997, a contract modification was awarded to the existing multiyear production contract for an additional 37 M109A6 Paladins. An FY98 contract option for 36 vehicles was awarded in November 1997.																																																																																																							
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The M109A6 was approved for entry into full scale development in November 1984. At that time, DA decided to modify M109A2/A3 Howitzers to a HIP configuration. It was decided to merge the Howitzer Extended Life Program (HELP) into the HIP where kits from both programs would be applied to the M109A2/A3 Howitzer. The improved 155mm Self-Propelled Howitzer was approved for Type-Classification Low Rate Production (TC-LRP) and designated the M109A6 Howitzer following a Milestone III-A ASARC on 7 February 1990. In March 1993 a Milestone III Pre-ASARC review was chaired by the Assistant Secretary of the Army for Research, Development and Acquisition, and the M109A6 Paladin was approved for Type Classification-Standard and full rate production and deployment. This Milestone III is documented in Acquisition Decision Memorandum dated 9 April 1993. The Paladin production program is within schedule and, as of February 1998, successfully fielded 487 M109A6 Howitzers and all associated items of equipment. All major development milestones for the M109A6 Paladin Howitzer have been successfully completed.																																																																																																							
Installation Schedule: <table border="1"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td>54</td><td>54</td><td>54</td><td>54</td> <td>54</td><td>54</td><td>53</td><td>18</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td>49</td><td>54</td><td>55</td><td>55</td> <td>54</td><td>54</td><td>54</td><td>54</td> <td>41</td><td>18</td><td>18</td><td>18</td> <td>9</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>														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	54	54	54	54	54	54	53	18													Outputs	49	54	55	55	54	54	54	54	41	18	18	18	9													
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	54	54	54	54	54	54	53	18																																																																																															
Outputs	49	54	55	55	54	54	54	54	41	18	18	18	9																																																																																										
<table border="1"> <thead> <tr> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> </thead> <tbody> <tr> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>Complete</td><td>To</td> </tr> <tr> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td>950</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td>950</td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td>950</td> </tr> </tbody> </table>														FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To																		950	Inputs																	950	Outputs																	950
FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																							
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To																																																																																						
																	950																																																																																						
Inputs																	950																																																																																						
Outputs																	950																																																																																						
METHOD OF IMPLEMENTATION: Depot/Contractor ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 19 Months Contract Dates: FY 1997 Apr 97 FY 1998 Nov 97 FY 1999 Delivery Date: FY 1997 Nov 98 FY 1998 Jun 99 FY 1999																																																																																																							

INDIVIDUAL MODIFICATION														Date		February 1998			
MODIFICATION TITLE (Cont):																		Howitzer Improvement Program 1-81-05-1002	
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	\$			
RDT&E		149.4															149.4		
PROCUREMENT	877		37		36												950		
Kit Quantity																			
Equipment		698.8		40.1		37.3		0.5		4.9		5.5		0.1			787.2		
Equipment, Nonrecurring		233.3		4.5		4.2											242.0		
Engineering Change Orders		163.5		20.7		10.5		3.3		0.4							198.4		
Data		11.7		2.3		0.5											14.5		
Training Equipment		14.1															14.1		
Vehicular Intercom System		9.2		0.4		0.4											10.0		
Other		4.4		0.7													5.1		
Project Management Admin		9.2		4.7		3.0		2.8									19.7		
Fielding		10.0		10.4		8.5		4.5		3.8							37.2		
Depot Maint Premodification								0.2									0.2		
Installation of Hardware																			
FY 1996 & Prior--Kits (877)	716	53.2	161	9.2													62.4		
FY 1997 Eqpt -- Kits (37)			37	2.4													2.4		
FY 1998 Eqpt -- Kits (36)					36	2.1											2.1		
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	716	53.2	198	11.6	36	2.1											66.9		
Total Procurement Cost		1207.4		95.4		66.5		11.3		9.1		5.5		0.1			1395.3		

INDIVIDUAL MODIFICATION																			
Date																			
February 1998																			
MODIFICATION TITLE (Cont):																			
Chlorofluorocarbon (CFC) Elimination 1-96-05-1003																			
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																			
Hardware																			
Testing																			

Exhibit P-40, Budget Item Justification Sheet										February 1998		
Appropriation / Budget Activity/Serial No:										Date:		
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles										P-1 Item Nomenclature:		
Program Elements for Code B Items:										FAASV PIP TO FLEET (GA8010)		
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	56.7	9.9	6.4	23.5	1.9	3.2	0.1	0.0	18.7	0.0	4.6	124.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	56.7	9.9	6.4	23.5	1.9	3.2	0.1	0.0	18.7	0.0	4.6	124.9
Initial Spares												
Total Proc Cost	56.7	9.9	6.4	23.5	1.9	3.2	0.1	0.0	18.7	0.0	4.6	124.9
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Funds the procurement of approved modifications to the M992 and M992A1 Field Artillery Ammunition Support Vehicle (See detailed Description/Justification on the following exhibit P-3A).

INDIVIDUAL MODIFICATION																
														Date		
														February 1998		
MODIFICATION TITLE: FAASV Materiel Change (A2 Conversion) 1-93-05-4457																
MODELS OF SYSTEMS AFFECTED: FAASV M992A2																
DESCRIPTION / JUSTIFICATION: The FAASV materiel change encompasses the previously approved FAASV HELP (Howitzer Extended Life Program) and Survivability Materiel Changes. The materiel change incorporates M109 Family of Vehicles improvements into the FAASV in order to maintain a common chassis. These improvements include the Low Heat Rejection/Cold Start Engine, improved XTG 411-4 Transmission, Reliability, and Maintainability (RAM) improvements to the cooling, electrical, and suspension systems, relocated heater and hydraulic reservoir, stronger fuel cell, and modifications to provide interoperability with the M109A6 Paladin Howitzer. The enhancements provided by the materiel change will permit the FAASV crew to operate in the same environment as the M109A6 Paladin. This means the operation and maintenance features will be common (i.e. spares, repair parts, special tools, and training) and the FAASV cold starting and RAM features will be comparable. The modifications to the rear door conveyor and propellant racks will improve M109A6 supportability. Funding against Depot Maintenance Pre-Modification pays the Inspect and Repair Only As Necessary (IROAN) upgrade effort. FY99 represents the first year these funds were transferred from the Operation and Maintenance, Army(OMA) to the procurement appropriation as directed by Program Budget Decision (PBD) 21.																
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Preliminary Design Review: 1QFY91 Critical Design Review: 4QFY91 Contractor Test and Evaluation: 2QFY93 IPR Production Design: 3QFY93 TDP Available: 3QFY93 M992A2 First Delivery: M992A2 First Unit Equipped: 3QFY94 M992A2 First Unit Equipped: 1QFY95																
Installation Schedule:																
Inputs Outputs	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
	356	33	31	90	21	42	39	63	106	8	35	26	2	2	2	2
Inputs Outputs	Totals	FY 2002			FY 2003			FY 2004			FY 2005			Totals		
	1	2	3	4	1	2	3	4	1	2	3	4	Complete			
	789													789		
METHOD OF IMPLEMENTATION: Field Retrofit																
Contract Dates: FY 1997 October 1997 FY 1998 N/A FY 1999 N/A PRODUCTION LEADTIME: 7 Months																
Delivery Date: FY 1997 April 1998 FY 1998 N/A FY 1999 N/A																

INDIVIDUAL MODIFICATION													
FAASV Materiel Change (A2 Conversion) 1-93-05-4457													
MODIFICATION TITLE (Cont):													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity	664	42.4	125	2.3									789
Installation Kits													
Engineering Change Orders		10.2		0.1									44.7
Project Management Admin		1.0		0.2									10.3
Testing		0.1											1.2
Vehicular Intercom System				9.1									0.1
Fielding		3.4		0.9		0.1		0.2	0.1				9.1
Depot Maint PreModification						2.7							4.7
Auxiliary Power Unit										0.6			3.3
									18.1				18.1
Installation of Hardware													
FY 1996 & Prior Eqpt(664) Kits	462	15.4	202	8.4									664
FY 1997 Eqpt (125) Kits			125	1.5									125
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	462	15.4	327	9.9									789
Total Procurement Cost		72.5		22.5		0.1		2.9	0.1				116.8

INDIVIDUAL MODIFICATION												Date	February 1998																																																																																				
MODIFICATION TITLE: FAASV Halon Replacement 1-94-05-4477																																																																																																	
MODELS OF SYSTEMS AFFECTED: FAASV M992A2																																																																																																	
DESCRIPTION / JUSTIFICATION:																																																																																																	
References: DOD Directive 6050.0; DA Policy Letter 200.0.1; AMC Regulation 70-68; Montreal Protocol of 1986 and Presidential Directive . These references mandate the replacement of Halon charged fire suppression systems to prevent ozone depletion. A common replacement agent engine compartment fire extinguishing system is required for 885 FAASV systems. FY97-99 funds have been appropriated to begin step one of the conversion by replacing the fire suppression distribution system in the FAASV engine compartment on 688 vehicles with one suitable to both Halon and the selected alternate agent.																																																																																																	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																																	
PLANNED: Preliminary Design Review: 2QFY98 Critical Design Review: 2QFY98 Joint Government Contractor Test and Evaluation: 2QFY98 IPR Production Decision: 3QFY98 TDP Available: 3QFY98										ACTUAL: 1QFY98 1QFY98																																																																																							
Installation Schedule:																																																																																																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>100</td><td>100</td><td>244</td><td>244</td> <td>197</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>57</td><td>50</td><td>26</td><td>20</td> <td>50</td><td>162</td><td>162</td><td>161</td> <td></td><td></td><td></td><td></td> </tr> </table>														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	100	244	244	197								Outputs									57	50	26	20	50	162	162	161				
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	100	244	244	197																																																																																				
Outputs									57	50	26	20	50	162	162	161																																																																																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>Complete</td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>885</td><td>688</td> </tr> </table>														FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete																		885	688																														
FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																	
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete																																																																																	
																885	688																																																																																
METHOD OF IMPLEMENTATION: Unknown Contract Dates: FY 1997 July 98 Delivery Date: FY 1997 Dec 88														ADMINISTRATIVE LEADTIME: 9 Months FY 1998 July 98 FY 1998 Dec 98				PRODUCTION LEADTIME: 6 Months FY 1999 N/A FY 1999 N/A																																																																															

INDIVIDUAL MODIFICATION													
MODIFICATION TITLE (Cont): FAASV Halon Replacement 1-94-05-4477													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Quantity Kit A			200	0.3	488	0.7	197	0.3					885
Hardware for Kit A													1.3
Engineering Support				0.3		0.4							0.7
Data													
Test				0.4									0.8
Other													
Quantity Kit B													
Hardware for Kit B											885	3.4	885
													3.4
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt (200) Kits													200
FY 1998 Eqpt (488) Kits													488
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- kits													
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip-Kits													
Total Installation					688	0.7							1082
Total Procurement Cost		0.4		1.0		1.8		0.3					1082
													1770
													4.6
													8.1

Exhibit P-40, Budget Item Justification Sheet													Date:	February 1998
Appropriation / Budget Activity/Serial No:		P-1 Item Nomenclature:											IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570)	
PROCUREMENT OF WPNS & TRKD CMBT VEHs / 1 / Tracked Combat Vehicles		Other Related Program Elements:												
Program Elements for Code B Items:		Code:												
		A												
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	13	24	24	10	15	25	25	34	45	399	629			
Gross Cost	31.2	54.4	55.5	31.9	38.2	57.4	58.2	77.8	101.8	1029.3	1569.4			
Less PY Adv Proc														
Plus CY Adv Proc														
Net Proc (P-1)	31.2	54.4	55.5	31.9	38.2	57.4	58.2	77.8	101.8	1029.3	1569.4			
Initial Spares		2.9	1.6	0.8	2.9	3.2	3.1	4.2	4.2	63.2	88.0			
Total Proc Cost	31.2	36.8	56.0	32.7	41.1	60.5	61.3	82.0	105.9	1092.4	1657.5			
Flyaway U/C														
Wpn Sys Proc U/C	2.4	2.3	2.3	3.2	2.5	2.3	2.3	2.3	2.3	2.6	2.5			

DESCRIPTION: The M88A2 HERCULES is an armored, full-tracked, diesel-powered, recovery vehicle configured with an A-frame boom, three winches, and a spade. The boom has a 35 ton lift capacity and the main winch has a constant pull capacity of 70 tons. The hull is armored for protection against small arms fire, artillery fragments and anti-personnel mines. The vehicle mounts a caliber .50 machine gun for self-protection. The M88A2 HERCULES is capable of performing recovery, evacuation, and limited repair of the main battle tank. The FY98 procurement is the first year of full rate production following a Milestone III decision in August 1997. The procurement objective for the HERCULES is 629 vehicles.

JUSTIFICATION: The present 56 ton M88A1 is deficient in its ability to safely perform battlefield recovery of vehicles weighing 60 tons or more. The M88A1 cannot safely recover the Army's current main battle tank, the Abrams Tank, without using a second vehicle as a brake vehicle. The present lack of recovery capability has necessitated the development of a heavy recovery vehicle to provide a towing capability for vehicles weighing up to 70 tons. Future Army vehicles exceeding the M88A1's capability include the Grizzly, Wolverine, and Crusader. The M88A2 HERCULES will provide the Army this capability. The M88A2 program strategy is to modify the existing M88 recovery vehicle chassis, upgrade the propulsion system to 1050 horsepower, add armor protection, improve winching to 70 tons, improve hoisting to 35 tons, and add a hydraulic assisted braking system.

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles				P-1 Line Item Nomenclature: IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570)				Weapon System Type:		Date: February 1998	
WTCV Cost Elements			FY 96		FY 97		FY 98		FY 99					
ID	CD		TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
1. Vehicle Manufacturing - Contractor	A		45841	24	1910	44421	24	1851	19153	10	1915	28395	15	1893
2. Vehicle Manufacturing - GFE			2193	*24	VAR	2390	*24	VAR	972	*10	VAR	1471	*15	VAR
3. Contractor Engineering			1349			3152			3205			3159		
4. Engineering Change Orders			125			318			604			893		
5. Project Management - Core			870			974			1006			1014		
6. Project Management - OGA			1116			1017			1118			1128		
7. Transportation			48			48			23			36		
8. Fielding			873			580			1192			1052		
9. Testing			1890			959			649					
10. Test Vehicle Refurb			58			1670								
11. Depot Maintenance - Premodification												1027		
12. Congressional Increase (ECP)									4000					
TOTAL			54363			55529			31922			38175		

Exhibit P-5a, Budget Procurement History and Planning										Date: February 1998
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles		Weapon System Type:		P-1 Line Item Nomenclature: IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570)						
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
1. Vehicle Manufacturing - Contractor										
FY 96	UDLP (1)	SS-FFP	TACOM	Apr-96	Jul-97	24	1910	YES		Nov-95
FY 97	UDLP	SS-FFP	TACOM	Apr-97	Jul-98	24	1851	YES		Nov-96
FY 98	UDLP	SS-FFP	TACOM	Apr-98	Jul-99	10	1915	YES		Nov-97
FY 99	UDLP	SS-FFP	TACOM	Apr-99	Nov-00	15	1893	YES		Nov-98
2. Vehicle Manufacturing - GFE										
FY 96	Various	Reqn/PO	Various			24	VAR	YES		
FY 97	Various	Reqn/PO	Various			24	VAR	YES		
FY 98	Various	Reqn/PO	Various			10	VAR	YES		
FY 99	Various	Reqn/PO	Various			15	VAR	YES		
REMARKS: (1) UDLP - United Defense Limited Partnership										

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles												P-1 Item Nomenclature:
HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)												P-1 Item Nomenclature:
Program Elements for Code B Items:												Other Related Program Elements:
Code:												84649
B												84649
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		2	6	7	9	13	18	22	23	365	465	
Gross Cost	0.0	14.6	51.4	41.3	50.4	68.6	86.5	106.5	116.5	2112.0	2647.8	
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	14.6	51.4	41.3	50.4	68.6	86.5	106.5	116.5	2112.0	2647.8	
Initial Spares				0.9	0.9	1.4	1.4	1.8	2.1	36.2	44.6	
Total Proc Cost	0.0	14.6	51.4	42.2	51.3	70.0	87.9	108.3	118.6	2148.2	2692.4	
Flyaway U/C												
Wpnt Sys Proc U/C		7.3	8.6	5.9	5.6	5.3	4.8	4.8	5.1	5.8	5.7	

DESCRIPTION: The Wolverine (Heavy Assault Bridge) is a 26 meter (79 feet) Military Load Class 70 bridge transported on a modified M1A2 System Enhancement Package (SEP) Abrams Tank chassis. The bridge is capable of spanning gaps up to 24 meters on both prepared and unprepared abutments and can be placed on a bearing surface over its entire length. It is launched under armor within five minutes and can be retrieved, from either end, in less than ten minutes. The Wolverine is operated by a crew of two soldiers and will be employed by Combat Engineer units in both offensive and defensive combined arms operations. Its mission is to provide gap crossing capability for heavy maneuver forces. It is planned to support the Abrams Tank System and the Bradley Fighting Vehicle and is compatible with these systems in mobility and survivability.

JUSTIFICATION: During Operation Desert Storm, it became evident that the current Army bridging system was deficient in gap spanning capability and required increased load carrying capability. The Wolverine will replace the Armored Vehicle Launched Bridge (AVLB) providing increased worldwide gap crossing capabilities, increased load capacity to support Military Load Class 70 vehicles and improved mobility, survivability, and logistics compatibility. The Wolverine enhances the Combined Arms Team's ability to move where it wants, multiplying its combat capabilities. First Unit Equipped will be in FY00 at a quantity of 12 vehicles.

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles			P-1 Line Item Nomenclature: HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)			Weapon System Type:			Date: February 1998		
WTCV			FY 96			FY 97			FY 98			FY 99		
Cost Elements			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. Vehicle Manufacturing - Contractor	B		10048	2	5024	32618	6	5436	27376	7	3911	35261	9	3918
2. Vehicle Manufacturing - ANAD						1212	6	202	1600	7	229	2100	9	233
3. Vehicle Manufacturing - GFE			1861						2260	7	323	2940	9	327
4. Contract Engineering			1330			15513			7000			6990		
5. Engineering Change Orders									730			950		
6. Project Mgmt Admin - Core			482			844			730			750		
7. Project Mgmt Admin - OGA			890			1204			1260			1160		
8. New Equipment Training									340			230		
9. Total Package Fielding														
10. Transportation						10			15			20		
TOTAL			14611			51401			41311			50401		

Exhibit P-5a, Budget Procurement History and Planning																
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles					Weapon System Type:			P-1 Line Item Nomenclature: HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)								
WBS Cost Elements: Fiscal Years					Contractor and Location		Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date	
1. Vehicle Manufacturing - Contractor FY 96 FY 97 FY 97 FY98 FY99					General Dynamics Land Sys Lima, Ohio		SS-CPFF	TACOM	Aug-96		2	5024	YES		Aug-97	
							SS-CPFF	TACOM	Dec-96		4	*6199	YES		Aug-97	
							SS-FFP	TACOM	Jan-98		2	*3911	YES		Jul-98	
							M2(1)									
							SS-FFP	TACOM	Jan-98		7	3911	YES			
2. Vehicle Manufacturing - ANAD FY 97 FY 98 FY 99					Anniston Army Depot		M2(1)									
							SS-FFP	TACOM	Nov-98		9	3918	YES			
							M2(2)									
3. Vehicle Manufacturing - GFE FY 96 FY 97 FY 98 FY 99					Government Furnished Equipment											
REMARKS: *The first four vehicles of the FY97 funds were purchased as an option in Dec 96 on the Aug 96 Pilot Vehicle contract. The unit price is much greater due to the nonrecurring costs to be incurred in preparing for production such as tooling costs. The last 2 vehicles will be included in the Jan 98 MYP award at the same unit price as the FY98 buy. **PM Abrams provided PM Wolverine with two refurbished chassis for the first two LRIP vehicles.																

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
PROCUREMENT OF WPNS & TRKD CNBT VEHIS / 1 / Tracked Combat Vehicles												P-1 Item Nomenclature:
Program Elements for Code B Items:												ARMORED VEH LAUNCH BRIDGE (AVLB) (MOD) (GZ3000)
Other Related Program Elements:												
Code: A												
	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	146.2	0.0	0.0	0.0	0.0	1.0	1.3	1.7	0.0	0.0	0.0	150.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	146.2	0.0	0.0	0.0	0.0	1.0	1.3	1.7	0.0	0.0	0.0	150.3
Initial Spares												
Total Proc Cost	146.2	0.0	0.0	0.0	0.0	1.0	1.3	1.7	0.0	0.0	0.0	150.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The Armored Vehicle Launched Bridge (AVLB) is the current authorized standard assault bridge supporting heavy forces. AVLBs are primarily assigned to Combat Engineering training and War Reserve sites.

JUSTIFICATION: In order to fully modify the fleet, 35 vehicles, 20% of the Active Component and high priority War Reserve units need modifications. The Armored Top Loading Air Cleaner and Air Induction System Improvements (Clean Air) will improve the reliability and extend engine life. The other two modifications, the AN/VVS-2 Driver's Night Viewer (DNV) and Smoke Grenade Launcher will improve the tactical maneuvering and operations capability of the AVLB. The DNV will improve the night vision capability of the vehicle driver; the Smoke Grenade Launcher allows the AVLB to advance, deploy, and retreat under cover of obscuring smoke in a tactical environment. These vehicle modifications are required on AVLBs to make the vehicles supportable.

INDIVIDUAL MODIFICATION													
										Date	February 1998		
MODIFICATION TITLE: AVL Block MOD 1-97-05-4531													
MODELS OF SYSTEMS AFFECTED: M60A1/M48A5 AVLB													
DESCRIPTION / JUSTIFICATION:													
In order to fully modify the fleet, 35 vehicles, 20% of the Active Component and high priority War Reserve units need modifications. The Armored Top Loading Air Cleaner and Air Induction System Improvements (Clean Air) will improve the reliability and extend engine life. The other two modifications, the AN/VVS-2 Driver's Night Viewer (DNV) and Smoke Grenade Launcher will improve the tactical maneuvering and operations capability of the AVLB. The DNV will improve the night vision capability of the vehicle driver; the Smoke Grenade Launcher allows the AVLB to advance, deploy, and retreat under cover of obscuring smoke in a tactical environment. These vehicle modifications are required on AVLBs to make the vehicles supportable.													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:													
<u>PLANNED</u> February 98 <u>ACCOMPLISHED</u>													
TDP Review													
Installation Schedule:													
Inputs Outputs	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
Inputs Outputs	FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		Totals		
	1	2	3	4	1	2	3	4	1	2	3	4	
	9											35	
METHOD OF IMPLEMENTATION: Depot/Depot Teams ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 6 Months Contract Dates: FY 1997 FY 1998 FY 1999 June 99 Delivery Date: FY 1997 FY 1998 FY 1999 October 99													

INDIVIDUAL MODIFICATION														February 1998						
MODIFICATION TITLE (Cont):														Date						
AVLB Block MOD 1-97-05-4531																				
FINANCIAL PLAN: (\$ in Millions)																				
FY 1996 and Prior	Qty	\$	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	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity							6	0.3	20	0.9	9	0.5							35	1.7
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																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits									6	0.2									6	0.2
FY 2001 Eqpt -- kits									5	0.1	15	0.6							20	0.7
FY 2002 Eqpt -- kits											9	0.4							9	0.4
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment									11	0.3	24	1.0							35	1.3
Total Procurement Cost								1.0	1.3	1.3	1.7	1.7							4.0	

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD OMBT VEHS / 1 / Tracked Combat Vehicles												P-1 Item Nomenclature: M1 ABRAMS TANK (MOD) (GA0700)	
Program Elements for Code B Items:												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	447.6	35.0	50.1	62.9	29.2	53.3	30.4	62.5	97.1	119.9	1348.9	2336.9	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	447.6	35.0	50.1	62.9	29.2	53.3	30.4	62.5	97.1	119.9	1348.9	2336.9	
Initial Spares													
Total Proc Cost	447.6	35.0	50.1	62.9	29.2	53.3	30.4	62.5	97.1	119.9	1348.9	2336.9	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: This budget line provides for the procurement and installation of modification kits for the Abrams series tank to improve Lethality, Survivability, Safety and Operational Capabilities. Tank Lethality is being improved by the Armament Enhancement Initiative (AEI) and the Embedded Battle Command (EBC). Tank Survivability and Safety improvements include Live Fire Category A (Manual Blaster, Driver's/Loader's Hatch Ballistic Rims, Turret Cable Ballistic Protection and Driver's Hatch Latch); Live Fire Category B (Ammo Door Latch Mechanism, Smoke Generator Fuel Line, NBC Fire Warning System (NBCFW), new Hand - Held Fire Extinguishers (H-HFE), Improved Gunner's Station (IGS); Battlefield Override (BF/OR), Driver's Viewer Quick Release (DVQR); System Enhancement Package (SEP); and Driver's Hatch Interlock (DHI). Tank Operational improvements include the Precision Lightweight GPS Receiver (PLGR); Pulse - Jet System (PJS); Vehicle Intercommunications System (VIS); External Auxiliary Power Unit (EAPU); M1A2 Field Upgrades, the M1A1-D program and the Mounted Water Ration Heater (MWRH). Finally, there is the Presidentially directed HALON Replacement program (Ozone Depleting Chemical Replacement). These P-Forms also reflect the alignment of most MODS into BLOCKS in order to realize reduced installation costs from concurrent application.

JUSTIFICATION: The priorities noted here in are consistent with USA Armor School requirements and are structured to meet needs validated by Tank users in training and testing as well as in actions such as Operation Desert Storm (ODS). Degradation of tank warfighting capability and survivability, increased incidents of vehicle damage and crew injuries will occur if these modifications are delayed or deleted.

Exhibit P-40M Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No.			Date									
PROCUREMENT OF WPNS & TRKD CMBT VEHs / 1 / Tracked Combat Vehicles			February-98									
Program Elements for Code B Items			M1 ABRAMS TANK (MOD) (GA0700)									
			P-1 Item Nomenclature									
			Other Related Program Elements									
			Code									
			Fiscal Years									
OSIP NO.	Classification		FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
Halon Replacement (HAR) [MOD 1]												
1-92-05-4411	Environmental		7.4	1.5	2.0	5.3	6.5	6.6	6.8	5.7	5.6	47.4
Driver's Hatch Interlock (DHI) [Mod 2]												
1-97-05-4520	Safety		0.0	20.4	6.5	5.8	4.9	0.0	0.0	0.0	39.8	77.4
Vehicle Intercommunications System (VIS) [MOD 3]												
1-92-05-4412	Legislative Compl.		27.0	6.6	6.0	5.3	0.7	0.0	0.0	0.0	4.5	50.1
Armament Enhancement Initiative (AEI) [MOD 4]												
1-89-05-4226	Operational		60.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.5
Precision Lightweight GPS Receiver (PLGR) [MOD 5]												
1-92-05-4417	Manprint		0.4	0.0	0.5	0.6	0.6	0.6	0.6	0.6	13.4	17.3
Live Fire Category A (LFCA) [MOD 6]												
1-89-05-4230	Deficiency Correct.		14.5	5.3	3.5	3.5	3.5	3.3	2.9	2.5	0.3	39.3
Battlefield Override (BF/OR) [MOD 7]												
1-89-05-4229	Operational		13.7	2.7	2.1	4.2	1.1	0.8	0.6	0.3	0.0	25.5
Live Fire Category B (LFCB) [MOD 8]												
1-94-05-4481	Deficiency Correct.		2.4	1.8	0.8	0.8	0.8	0.7	0.7	0.6	0.0	8.6
Driver's Viewer Quick Release (DVQR) [MOD 9]												
1-92-05-4427	Safety		0.3	0.2	0.3	0.3	0.2	0.0	0.0	0.0	0.0	1.3
Pulse - Jet System (PJS) [MOD 10]												
1-92-05-4475	Operational		29.0	6.7	3.5	2.4	1.5	0.0	0.0	0.0	296.9	340.0
Mounted Water Ration Heater (MWRH) [MOD 11]												
1-92-05-4426	Manprint		1.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.1
System Enhancement Package (SEP) [MOD 12]												
1-96-05-4505	Operational		0.0	0.0	0.0	0.0	2.9	46.5	82.8	107.4	655.5	895.1

Exhibit P-40M Budget Item Justification Sheet									
Appropriation / Budget Activity/Serial No.				Date		February-98			
PROCUREMENT OF WPNS & TRKD CMBT VEHs / 1 / Tracked Combat Vehicles				P-1 Item Nomenclature		M1 ABRAMS TANK (MOD) (GA0700)			
Program Elements for Code B Items				Code		Other Related Program Elements			
Embedded Battle Command (EBC) [MOD 13]									
1-96-05-4516	Operational	0.0	0.0	0.0	0.0	1.0	1.0	1.1	9.6
External Auxiliary Pwr Unit (EAPU) [MOD 14]									
1-85-05-4057	Operational	0.0	8.0	2.0	0.0	0.0	0.0	0.0	50.8
External Auxiliary Pwr Unit Upgrade (EAPUU) [MOD 15]									
1-97-05-4521	Operational	0.0	2.4	0.0	0.0	0.0	0.0	0.0	2.4
NBC Fire Warning (NBCFW) [MOD 16]									
1-97-05-4524	Safety	0.0	0.0	0.0	4.1	3.3	0.4	0.0	13.1
Hand-Held Fire Extinguisher (HHFE) [MOD 17]									
1-97-05-4525	Safety	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8
M1A2 Field Mods (A2FM) [MOD 18]									
1-97-05-4534	Deficiency Correction	0.0	1.4	0.9	0.2	1.0	2.0	1.0	13.7
Matrix Support (MXSP) [MOD 19]									
OSIP NO 20	Operational	0.0	0.5	0.5	0.5	0.6	0.6	0.6	7.3
Prior Year Mod Installation (PYMI) [MOD 20]									
OSIP NO 21	Operational	65.0	4.9	0.5	0.0	0.0	0.0	0.0	70.4
M1A1-D Integration Kit [MOD 21]									
OSIP NO. 22	Operational	0.0	0.0	0.0	20.3	0.0	0.0	0.0	291.7
Totals		221.7	62.9	29.2	53.3	30.4	62.5	97.1	2,025.4

INDIVIDUAL MODIFICATION																																																																																																																			
										Date	February 1998																																																																																																								
MODIFICATION TITLE: Halon Replacement (HAR) [MOD 1] 1-92-05-4411																																																																																																																			
MODELS OF SYSTEMS AFFECTED: M1 = 355, IPM1 = 818, M1A1 = 4327, M1A2 = 650 TOTAL RQMT = 6150																																																																																																																			
DESCRIPTION / JUSTIFICATION: This Modification changes the engine compartment fire suppression system in all models of the Abrams tank. This retrofit involves the substitution of a dry powder fire retardant (FM-200) for the Halon 1301 gas currently used. This requirement was mandated by the 1988 Montreal Protocol in which 93 countries including the U.S.A. agreed to phase out Ozone Depleting Chemicals [ODC's] including the Halon 1301 used in the Abrams Tank Engine Compartment [Halon 1301 remains authorized for the Abrams Crew Compartment due to survivability concerns]. See 1992 DOD directive 6050.9 which establishes the policy on ODC's for the Armed Forces and DA letter 200 / 9 which implements that policy within the U.S. Army. The Halon 1301 replacement modification represents the implementation of a Presidential directive.																																																																																																																			
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METHOD OF IMPLEMENTATION: Contr. / Depot Teams ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 4 Months																																																																																																																			
Contract Dates: FY 1997 N/A FY 1998 APR 98 FY 1999 APR 99																																																																																																																			
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INDIVIDUAL MODIFICATION																		
Driver's Hatch Interlock (DHI) [Mod 2] 1-97-05-4520																		
MODIFICATION TITLE (Cont):																		
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	\$
RDT&E																		
PROCUREMENT																		
Kit Quantity	2433		228		420										2499		5580	
Installation Kits																		
Installation Kits, Nonrecurring							4.0											
Equipment		18.5		2.1												27.3		51.9
Equipment, Nonrecurring																		
Engineering Change Orders		1.1																1.1
Data																		
Training Equipment																		
Support Equipment																		
Other (Tst & Source select)																		
Interim Contractor Support																		
Installation of Hardware																		
FY 1996 & Prior Eqpt -- Kits																		
FY 1997 Eqpt -- Kits	422	0.8	1067	4.4	427	1.8			517	2.2							2433	9.2
FY 1998 Eqpt -- Kits									228	0.9							228	0.9
FY 1999 Eqpt -- Kits									420	1.8							420	1.8
FY 2000 Eqpt -- kits																		
FY 2001 Eqpt -- kits																		
FY 2002 Eqpt -- kits																		
FY 2003 Eqpt -- kits																		
TC Equip 2499 --Kits															2499	12.5	2499	12.5
4															2499	12.5	5580	24.4
Total Procurement Cost																		
	422	0.8	1067	4.4	427	1.8			1165	4.9					2499	12.5	5580	24.4
		20.4		6.5		5.8				4.9						39.8		77.4

INDIVIDUAL MODIFICATION																																																																																																																			
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MODIFICATION TITLE: Vehicle Intercommunications System (VIS) [MOD 3] 1-92-05-4412																																																																																																																			
MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 181 TOTAL RQMT = 4508																																																																																																																			
DESCRIPTION / JUSTIFICATION: The Vehicle Intercommunications System (VIS) is an intercom for inter-crew communications and a connection to a radio for tank to tank direct communications. VIS replaces the AN/VIC-1 which is technologically obsolete, difficult to maintain and susceptible to electronic countermeasures. VIS is a state-of-the-art replacement which has none of these drawbacks. This is a Congressionally mandated program. All milestones are for USA CECOM, the "A" proponent for the VIS program. Current funding will provide for the retrofit of all M1A2's produced prior to VIS availability (Balance of M1A2's will be fitted in production via the M1A2 Upgrade program) and all M1A1's.																																																																																																																			
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Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																		
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Inputs	2568	164	164	163	128	128	128	128	113	113	113	112	128	128	128	128																																																																																																			
Outputs	1932	159	159	159	163	164	164	164	128	128	128	128	128	128	128	67																																																																																																			
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INDIVIDUAL MODIFICATION													
Vehicle Intercommunications System (VIS) [MOD 3] 1-92-05-4412													
Date February 1998													
MODIFICATION TITLE (Cont):													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E													
PROCUREMENT													
Kit Quantity	2568		655		512		451						4508
Installation Kits													
Installation Kits, Nonrecurring													
Equipment		22.9		5.7		5.1		4.6				3.9	42.2
Equipment, Nonrecurring		0.2											0.2
Engineering Change Orders		0.2											0.2
Testing													
Training Equipment													1.7
Support Equipment													0.5
Other		1.7											
Interim Contractor Support		0.5											
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits	1932	1.5	636	0.9									2.4
FY 1997 Eqpt -- Kits					655	0.9							0.9
FY 1998 Eqpt -- Kits							512	0.7					0.7
FY 1999 Eqpt -- Kits									451	0.7			0.7
FY 2000 Eqpt -- kits													
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip -- 322 Kits													
Total Installation	1932	1.5	636	0.9	655	0.9	512	0.7	451	0.7			5.3
Total Procurement Cost		27.0		6.6		6.0		5.3		0.7		4.5	50.1

MODIFICATION TITLE: Armament Enhancement Initiative (AEI) [MOD 4] 1-89-05-4226

MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 4327

DESCRIPTION / JUSTIFICATION:

The Armament Enhancement Initiative (AEI) is a high priority program to improve the lethality of the Abrams M1A1 tank fleet by improving the 120mm main armament ammunition and by modifying the fire control system via new ballistic solutions and reticle changes to allow the tank to accept the new rounds (All M1A2's are receiving this mod in production). The ammunition upgrades will significantly improve kill ratios in actions such as Operation Desert Storm. This program also includes the upgrade of the first 1629ea M1A1 gun mounts to the higher pressure (and higher muzzle velocity) AEI configuration (the balance of delivered gun mounts were supplied in this configuration for production). The Gun Mount upgrade is an RIA (Rock Island Arsenal) effort; Reticle revisions are contracted and field retrofits to the tanks are completed by a Depot Team.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	PLANNED	ACCOMPLISHED
Preliminary Design Review	- - - - - 2Q91	3Q91
Critical Design Review	- - - - - 3Q91	4Q91
Contractor Test & Eval.	- - - - - 3Q91	4Q91
Initial Operational Test & Eval.	- - - - - 4Q91	1Q92
TDP Available	- - - - - 2Q92	1Q92

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
Inputs	4327														
Outputs	4177	38	38	37											

FY 2002				FY 2003				FY 2004				FY 2005				To
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete
Inputs																
Outputs																
Totals																
4327																
4327																

METHOD OF IMPLEMENTATION: See Description
 Contract Dates: FY 1997 N/A
 Delivery Date: FY 1997 N/A
 ADMINISTRATIVE LEADTIME: N/A
 MONTHS: N/A
 PRODUCTION LEADTIME: N/A
 MONTHS: N/A

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont):													
Armament Enhancement Initiative (AEI) [MOD 4] 1-89-05-4226													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RD&E													
PROCUREMENT													
Kit Quantity	4327												4327
Installation Kits													
Installation Kits, Nonrecurring		26.4											26.4
Equipment													
Equipment, Nonrecurring													
Engineering Change Orders		3.2											3.2
Data (In - House Support)													
Training Equipment													
Support Equipment													
Other (Gun Mount Rebuild)		15.2											15.2
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits	4177	15.3	150	0.4									4327
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 Installation	4177	15.3	150	0.4									15.7
Total Procurement Cost		60.1		0.4									60.5

MODIFICATION TITLE: Precision Lightweight GPS Receiver (PLGR) [MOD 5] 1-92-05-4417

MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 4327ea

DESCRIPTION / JUSTIFICATION:

The Precision Lightweight GPS Receiver (PLGR) is a self-contained locator unit which can collect and process GPS satellite signals and derive Position (To within + or - 10 meters), Velocity and Time (PVT). The funding shown is for the PLGR Installation Kit only. PLGR units were procured and provided to PM Abrams by PM GPS.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:		PLANNED				ACCOMPLISHED			
Preliminary Design Review	-	-	-	-	-	2Q91			
Critical Design Review	-	-	-	-	-	4Q91			
Contractor Test & Eval.	-	-	-	-	-	3Q93			** Delayed by
Development Test & Eval.	-	-	-	-	-	1Q94			continuing
Initial Operational Test & Eval.	-	-	-	-	-	4Q94			EMI problems
IPR Production Decision	-	-	-	-	-	1Q95			
TDP Available	-	-	-	-	-	2Q95			
	-	-	-	-	-	**			

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	38								50	50	50	50	50	50	50	50	50	50	50	50
Outputs	38								50	50	50	50	50	50	50	50	50	50	50	50

	FY 2002				FY 2003				FY 2004				FY 2005				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	50	50	50	50	50	50	50	50	50	50							3289	4327
Outputs	50	50	50	50	50	50	50	50	50	50							3289	4327

METHOD OF IMPLEMENTATION: Depot Field Team ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 5 Months
 Contract Dates: FY 1997 FY 1998 AUG 98 FY 1999 JUL 99
 Delivery Date: FY 1997 FY 1998 JAN 99 FY 1999 DEC 99

INDIVIDUAL MODIFICATION																			
Date February 1998																			
Precision Lightweight GPS Receiver (PLGR) [MOD 5] 1-92-05-4417																			
MODIFICATION TITLE (Cont):																			
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	\$
38	0.1			200	0.5	200	0.5	200	0.5	200	0.5	200	0.5	200	0.5	3089	10.0	4327	13.1
RDT&E																			
PROCUREMENT																			
Kit Quantity																			
Installation Kits																			
Installation Kits, Nonrecurring Equipment																			
Equipment, Nonrecurring Engineering Change Orders																			
Data																			
Training Equipment																			
Support Equipment																			
Other (Benet Labs)																			
Interim Contractor Support																			
Installation of Hardware																			
FY 1996 & Prior Eqpt -- Kits																			
38	0.1																	38	0.1
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 -- 3089 Kits																			
38	0.1					200	0.1	200	0.1	200	0.1	200	0.1	200	0.1	200	0.1	200	0.1
Total Installation																			
	0.4				0.5		0.6		0.6		0.6		0.6		0.6		0.6	3.4	4.0
Total Procurement Cost																			
																		13.4	17.3

INDIVIDUAL MODIFICATION																																																																																																																																																																									
										Date	February 1998																																																																																																																																																														
MODIFICATION TITLE: Live Fire Category A (LFCA) [MOD 6] 1-89-05-4230																																																																																																																																																																									
MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 4327																																																																																																																																																																									
DESCRIPTION / JUSTIFICATION: Live Fire Category A consists of the following M1A1 Tank modifications: [1.] Independent Manual Blaster, [2.] Driver's / Loader's Hatch Ballistic Rims, [3.] AFES Wiring Harness Ballistic Protection and [4.] Driver's Hatch Latch Mechanism. Each of these modifications corrects a deficiency relating to tank survivability found during Live - Fire Testing. These modifications are planned for concurrent procurement and installation as a portion of Block G.																																																																																																																																																																									
<table border="0" style="width: 100%;"> <tr> <th style="text-align: left;">DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</th> <th style="text-align: center;">PLANNED</th> <th style="text-align: center;">ACCOMPLISHED</th> </tr> <tr> <td>Preliminary Design Review</td> <td style="text-align: center;">2Q89</td> <td style="text-align: center;">2Q89</td> </tr> <tr> <td>Critical Design Review</td> <td style="text-align: center;">1Q91</td> <td style="text-align: center;">1Q91</td> </tr> <tr> <td>Contractor Test & Eval.</td> <td style="text-align: center;">4Q91</td> <td style="text-align: center;">4Q91</td> </tr> <tr> <td>IPR Production Decision</td> <td style="text-align: center;">2Q92</td> <td style="text-align: center;">2Q92</td> </tr> <tr> <td>TDP Available</td> <td style="text-align: center;">4Q92</td> <td style="text-align: center;">4Q92</td> </tr> </table>												DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:	PLANNED	ACCOMPLISHED	Preliminary Design Review	2Q89	2Q89	Critical Design Review	1Q91	1Q91	Contractor Test & Eval.	4Q91	4Q91	IPR Production Decision	2Q92	2Q92	TDP Available	4Q92	4Q92																																																																																																																																												
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IPR Production Decision	2Q92	2Q92																																																																																																																																																																							
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Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> <tr> <td>Inputs</td> <td>1400</td><td>135</td><td>136</td><td>135</td> <td>136</td><td>97</td><td>97</td><td>98</td> <td>98</td><td>97</td><td>97</td><td>98</td> <td>98</td><td>97</td><td>97</td><td>98</td> <td>98</td><td>97</td><td>97</td><td>98</td> </tr> <tr> <td>Outputs</td> <td>1400</td><td>135</td><td>136</td><td>135</td> <td>136</td><td>97</td><td>97</td><td>98</td> <td>98</td><td>97</td><td>97</td><td>98</td> <td>98</td><td>97</td><td>97</td><td>98</td> <td>98</td><td>97</td><td>97</td><td>98</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>To Complete</th><th>Months</th> </tr> <tr> <td>Inputs</td> <td>97</td><td>97</td><td>98</td><td>98</td> <td>97</td><td>97</td><td>98</td><td>98</td> <td>45</td><td>45</td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td>6</td> </tr> <tr> <td>Outputs</td> <td>97</td><td>97</td><td>98</td><td>98</td> <td>97</td><td>97</td><td>98</td><td>98</td> <td>45</td><td>45</td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>4327</td><td>6</td> </tr> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	1400	135	136	135	136	97	97	98	98	97	97	98	98	97	97	98	98	97	97	98	Outputs	1400	135	136	135	136	97	97	98	98	97	97	98	98	97	97	98	98	97	97	98		FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Months	Inputs	97	97	98	98	97	97	98	98	45	45								6	Outputs	97	97	98	98	97	97	98	98	45	45							4327	6
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																																																																								
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																					
Inputs	1400	135	136	135	136	97	97	98	98	97	97	98	98	97	97	98	98	97	97	98																																																																																																																																																					
Outputs	1400	135	136	135	136	97	97	98	98	97	97	98	98	97	97	98	98	97	97	98																																																																																																																																																					
	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																																																																								
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Months																																																																																																																																																							
Inputs	97	97	98	98	97	97	98	98	45	45								6																																																																																																																																																							
Outputs	97	97	98	98	97	97	98	98	45	45							4327	6																																																																																																																																																							
METHOD OF IMPLEMENTATION: Contr. Field Team ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 6 Months Contract Dates: FY 1997 JAN 97 FY 1998 JUN 98 FY 1999 DEC 98 Delivery Date: FY 1997 JUL 97 FY 1998 DEC 98 FY 1999 JUN 99																																																																																																																																																																									

INDIVIDUAL MODIFICATION																				Date		February 1998			
MODIFICATION TITLE (Cont):																						Live Fire Category A (LFCA) [MOD 6] 1-89-05-4230			
FINANCIAL PLAN: (\$ in Millions)																									
FY 1996 and Prior	Qty	\$	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	\$					
RDT&E PROCUREMENT Kit Quantity Installation Kits Installation Kits, Nonrecurring Equipment Equipment, Nonrecurring Engineering Change Orders Data Training Equipment Support Equipment Other (In - House Spt) Interim Contractor Support	2110		500		390		390		390		390		157						4327						
		9.9		2.1		1.2		1.2		1.2		0.9		0.4						16.9					
Installation of Hardware	1400	4.5	542	3.2	168	1.0	278	1.7	278	1.7	278	1.8	278	1.8					2110	8.7					
					222	1.3	112	0.6	112	0.6	112	0.6	112	0.7					500	3.0					
																		390	2.3						
																		390	2.4						
																		390	2.4						
																		390	2.5						
																		157	1.0						
TC Equip-Kits																	45	0.3							
Total Installation		1400	4.5	542	3.2	390	2.3	390	2.3	390	2.4	390	2.5	390	2.5	45	0.3	4327	22.3						
Total Procurement Cost			14.5		5.3		3.5		3.5		3.3		2.9		2.5		0.3		39.3						

INDIVIDUAL MODIFICATION														
Battlefield Override (BF/OR) [MOD 7] 1-89-05-4229														
MODIFICATION TITLE (Cont):														
FINANCIAL PLAN: (\$ in Millions)														
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E														
PROCUREMENT														
Kit Quantity	2435		333		333		333		333		333		308	
Installation Kits														4408
Installation Kits, Nonrecurring Equipment		3.9		0.5		0.5		0.5		0.5		0.5	0.3	
Equipment, Nonrecurring														6.7
Engineering Change Orders		1.1												1.1
Engineering / Testing		1.9												1.9
Training Equipment														
Support Equipment														
Other														
Interim Contractor Support														
Installation of Hardware														
FY 1996 & Prior Eqpt -- Kits	1421	6.8	458	2.2	333	1.6	223	0.9						2435
FY 1997 Eqpt -- Kits							333	1.4						333
FY 1998 Eqpt -- Kits							333	1.4						333
FY 1999 Eqpt -- Kits									333	0.6				333
FY 2000 Eqpt -- kits											333	0.3		333
FY 2001 Eqpt -- kits														333
FY 2002 Eqpt -- kits													308	0.3
FY 2003 Eqpt -- kits														308
TC Equip-Kits														
Total Installation	1421	6.8	458	2.2	333	1.6	889	3.7	333	0.6	333	0.3	308	0.3
Total Procurement Cost		13.7		2.7		2.1		4.2		1.1		0.8	0.6	0.3
														25.5

INDIVIDUAL MODIFICATION													
Date											February 1998		
MODIFICATION TITLE: Live Fire Category B (LFCB) [MOD 8] 1-94-05-4481													
MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 81 TOTAL RQMT = 4408													
DESCRIPTION / JUSTIFICATION:													
Live Fire Category B includes the following individual modifications: [1.] Improved Gunner's Station [2.] Smoke Generator Fuel Line and [3.] Turret Ammunition Door Locking Mechanism. Each of these modifications corrects a vehicle deficiency found during Live Fire testing. These modifications are planned for concurrent procurement and application as a portion of Block G.													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:													
						<u>PLANNED</u>			<u>ACCOMPLISHED</u>				
Critical Design Review						4Q93			4Q93				
IPR Production Decision						4Q93			4Q93				
Development Test & Eval.						1Q94			1Q94				
TDP Available						2Q94			4Q94				
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
Inputs		241	242	242	242	101	101	101	101	101	101	101	17
Outputs		238	238	238	238	101	101	101	101	101	101	101	101
Totals		241	242	242	242	101	101	101	101	101	101	101	101
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94	94	94	94	94	94	94
Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
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Inputs		101	101	101	101	95	94	94	94	94	94	94	94
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Inputs		101	101	101	101	95	94	94	94	94	94	94	94
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Inputs		101	101	101	101	95	94	94	94	94	94	94	94
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Inputs		101	101	101	101	95	94	94	94	94	94	94	94
Outputs		101	101	101	101	95	94	94	94	94	94	94	94
Totals		101	101	101	101	95	94						

INDIVIDUAL MODIFICATION														Date		February 1998	
MODIFICATION TITLE (Cont):																	
Live Fire Category B (LFCB) [MOD 8] 1-94-05-4481																	
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	\$	
RDT&E PROCUREMENT Kit Quantity Installation Kits Installation Kits, Nonrecurring Equipment Equipment, Nonrecurring Engineering Change Orders Data Training Equipment Support Equipment Other Interim Contractor Support	2010		967		404		404		404		219						4408
		0.8		0.4		0.2		0.2		0.2		0.1					1.9
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	1058	1.6	952	1.4	404	0.6	404	0.6	159	0.2							2010
									245	0.4	159	0.2					967
											245	0.4	159	0.3			404
													245	0.4	159	0.2	404
														219	0.4		219
Total Installation		1058	1.6	952	1.4	404	0.6	404	0.6	404	0.6	404	0.7	378	0.6		4408
Total Procurement Cost			2.4		1.8		0.8		0.8		0.7		0.7		0.6		8.6

INDIVIDUAL MODIFICATION																																																																																																																																																																																																																										
										Date	February 1998																																																																																																																																																																																																															
MODIFICATION TITLE: Driver's Viewer Quick Release (DVQR) [MOD 9] 1-92-05-4427																																																																																																																																																																																																																										
MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 181 TOTAL RQMT = 4508																																																																																																																																																																																																																										
DESCRIPTION / JUSTIFICATION: The Driver's Night Viewer Quick Release (DVQR) is a modification to the Driver's Night Viewer Periscope Retainer. It Provides a more positive locking feature which will preclude inadvertent release of the periscope from its operating position. Its primary purpose is to prevent the Viewer / Periscope from falling into the driver's lap when it is moved out of the driver's way as he exits the vehicle precluding injury to the driver as well as damage to the periscope. Because of its potential importance in emergency driver egress this modification has a secondary safety designation. It is however, primarily an operational improvement.																																																																																																																																																																																																																										
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Critical Design Review - - - - - Development Test & Eval. - - - - - IPR Production Decision - - - - - TDP Available - - - - - </td> <td style="width: 50%; vertical-align: top;"> <table border="0"> <tr> <td style="text-align: center;"><u>PLANNED</u></td> <td style="text-align: center;"><u>ACCOMPLISHED</u></td> </tr> <tr> <td style="text-align: center;">4Q93</td> <td style="text-align: center;">4Q93</td> </tr> <tr> <td style="text-align: center;">1Q94</td> <td style="text-align: center;">1Q94</td> </tr> <tr> <td style="text-align: center;">3Q94</td> <td style="text-align: center;">3Q94</td> </tr> <tr> <td style="text-align: center;">4Q94</td> <td style="text-align: center;">4Q94</td> </tr> </table> </td> </tr> </table>												DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Critical Design Review - - - - - Development Test & Eval. - - - - - IPR Production Decision - - - - - TDP Available - - - - -	<table border="0"> <tr> <td style="text-align: center;"><u>PLANNED</u></td> <td style="text-align: center;"><u>ACCOMPLISHED</u></td> </tr> <tr> <td style="text-align: center;">4Q93</td> <td style="text-align: center;">4Q93</td> </tr> <tr> <td style="text-align: center;">1Q94</td> <td style="text-align: center;">1Q94</td> </tr> <tr> <td style="text-align: center;">3Q94</td> <td style="text-align: center;">3Q94</td> </tr> <tr> <td style="text-align: center;">4Q94</td> <td style="text-align: center;">4Q94</td> </tr> </table>	<u>PLANNED</u>	<u>ACCOMPLISHED</u>	4Q93	4Q93	1Q94	1Q94	3Q94	3Q94	4Q94	4Q94																																																																																																																																																																																																			
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Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>1505</td><td>227</td><td>228</td><td>228</td> <td>261</td><td>261</td><td>262</td><td>262</td> <td>261</td><td>261</td><td>261</td><td>262</td> <td>262</td><td>261</td><td>261</td><td>262</td> <td>262</td><td>261</td><td>261</td><td>262</td> </tr> <tr> <td>Outputs</td> <td>785</td><td>180</td><td>180</td><td>180</td> <td>227</td><td>228</td><td>228</td><td>228</td> <td>261</td><td>261</td><td>261</td><td>262</td> <td>262</td><td>261</td><td>261</td><td>262</td> <td>262</td><td>261</td><td>261</td><td>262</td> </tr> <tr> <td colspan="20"> <table border="0" style="width: 100%;"> <tr> <td colspan="10"></td> <td colspan="4">FY 2002</td> <td colspan="4">FY 2003</td> <td colspan="4">FY 2004</td> <td colspan="4">FY 2005</td> <td colspan="2">Totals</td> </tr> <tr> <td colspan="10"></td> <td colspan="4">1</td><td colspan="4">2</td><td colspan="4">3</td><td colspan="4">4</td> <td colspan="2">Complete</td> </tr> <tr> <td colspan="10"></td> <td colspan="4">2</td><td colspan="4">3</td><td colspan="4">4</td> <td colspan="2">4508</td> </tr> <tr> <td colspan="10"></td> <td colspan="4">3</td><td colspan="4">4</td><td colspan="4">1</td><td colspan="2">4508</td> </tr> </table> </td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	1505	227	228	228	261	261	262	262	261	261	261	262	262	261	261	262	262	261	261	262	Outputs	785	180	180	180	227	228	228	228	261	261	261	262	262	261	261	262	262	261	261	262	<table border="0" style="width: 100%;"> <tr> <td colspan="10"></td> <td colspan="4">FY 2002</td> <td colspan="4">FY 2003</td> <td colspan="4">FY 2004</td> <td colspan="4">FY 2005</td> <td colspan="2">Totals</td> </tr> <tr> <td colspan="10"></td> <td colspan="4">1</td><td colspan="4">2</td><td colspan="4">3</td><td colspan="4">4</td> <td colspan="2">Complete</td> </tr> <tr> <td colspan="10"></td> <td colspan="4">2</td><td colspan="4">3</td><td colspan="4">4</td> <td colspan="2">4508</td> </tr> <tr> <td colspan="10"></td> <td colspan="4">3</td><td colspan="4">4</td><td colspan="4">1</td><td colspan="2">4508</td> </tr> </table>																														FY 2002				FY 2003				FY 2004				FY 2005				Totals												1				2				3				4				Complete												2				3				4				4508												3				4				1				4508	
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METHOD OF IMPLEMENTATION: Depot Field Teams ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 3 Months Contract Dates: FY 1997 OCT 96 FY 1998 OCT 97 FY 1999 OCT 98 Delivery Date: FY 1997 DEC 96 FY 1998 DEC 97 FY 1999 DEC 98																																																																																																																																																																																																																										

INDIVIDUAL MODIFICATION																				
Driver's Viewer Quick Release (DVQR) [MOD 9] 1-92-05-4427																				
MODIFICATION TITLE (Cont):																				
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	1505		911		1046		1046												4508	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		0.2		0.1		0.1		0.1												0.5
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	785	0.1	720	0.1															1505	0.2
FY 1997 Eqpt -- Kits					911	0.2													911	0.2
FY 1998 Eqpt -- Kits							1046	0.2											1046	0.2
FY 1999 Eqpt -- Kits									1046	0.2									1046	0.2
FY 2000 Eqpt -- kits										0.2										
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installation	785	0.1	720	0.1	911	0.2	1046	0.2	1046	0.2									4508	0.8
Total Procurement Cost		0.3		0.2		0.3		0.3		0.2										1.3

INDIVIDUAL MODIFICATION																																																																																																																			
										Date	February 1998																																																																																																								
MODIFICATION TITLE: Pulse - Jet System (PJS) [MOD 10] 1-92-05-4475																																																																																																																			
MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 228 TOTAL RQMT = 4555																																																																																																																			
DESCRIPTION / JUSTIFICATION: The Pulse - Jet System (PJS) replaces a large portion of the current engine air filtration system. The purpose of PJS is to extend the time between required air path servicing in any severe dust environment. The current system requires frequent servicing in such an environment which can introduce dust into the clean air path as each servicing requires that the path is broken in order to complete the service. PJS greatly reduces the number of times the clean air path requires servicing. The result is improved combat performance and reduced O&S costs. PJS was identified as user priority number one by Abrams tank units involved in Operation Desert Storm (ODS). NOTE: 180ea additional PJS Kits were procured using FY97 DBOF OSCR (O & S Cost Reduction) funds. This procurement is NOT a part of the Abrams tank MOD Line procurements but the 180 are being installed using MOD Line \$\$\$, thus total procured will be 180 less than the total installed.																																																																																																																			
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="10" style="text-align: center;">DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</th> <th colspan="2" style="text-align: center;">ACCOMPLISHED</th> </tr> </thead> <tbody> <tr> <td colspan="10">Preliminary Design Review</td> <td colspan="2">2Q92</td> </tr> <tr> <td colspan="10">Critical Design Review</td> <td colspan="2">3Q92</td> </tr> <tr> <td colspan="10">Contractor Test & Eval.</td> <td colspan="2">3Q93</td> </tr> <tr> <td colspan="10">Development Test & Eval.</td> <td colspan="2">3Q93</td> </tr> <tr> <td colspan="10">Initial Operational Test & Eval.</td> <td colspan="2">4Q93</td> </tr> <tr> <td colspan="10">IPR Production Decision</td> <td colspan="2">4Q93</td> </tr> <tr> <td colspan="10">TDP Available</td> <td colspan="2">2Q96</td> </tr> </tbody> </table>												DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:										ACCOMPLISHED		Preliminary Design Review										2Q92		Critical Design Review										3Q92		Contractor Test & Eval.										3Q93		Development Test & Eval.										3Q93		Initial Operational Test & Eval.										4Q93		IPR Production Decision										4Q93		TDP Available										2Q96									
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Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Inputs	543	36	36	36	36	9																																																																																																													
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	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																		
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Outputs																	3643	3643																																																																																																	
Totals																	4375	4555																																																																																																	
METHOD OF IMPLEMENTATION: Contractor Teams ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 8 Months Contract Dates: FY 1997 DEC 97 FY 1998 FEB 98 FY 1999 FEB 99 Delivery Date: FY 1997 APR 98 FY 1998 OCT 98 FY 1999 OCT 99																																																																																																																			

INDIVIDUAL MODIFICATION														February 1998					
Pulse - Jet System (PJS) [MOD 10] 1-92-05-4475																Date			
MODIFICATION TITLE (Cont):																			
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																			
543		144		45													3643		4375
			6.7		2.1														
	24.6																253.2		286.6
	0.6																		0.6
	1.0																		1.0
	0.9																		0.9
Training Equipment																			
Support Equipment																			
Other																			
* + 180ea Procured with DBOF OSCR Funds.																			
** 228 installed in CY97 using prior year funds																			
Installation of Hardware																			
17	1.9	228 **		180	1.4	118	0.9											543	4.2
						144	1.2											144	1.2
						36	0.3	189	1.5									225	1.8
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 -- 3643 Kits																			
17	1.9	228		180	1.4	298	2.4	189	1.5								3643	43.7	43.7
Total Installment																			
Total Procurement Cost																			

* + 180ea Procured with DBOF OSCF Funds.

** 228 installed in CY97 using prior year funds

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 -- 3643 Kits

Total Installment

Total Procurement Cost

INDIVIDUAL MODIFICATION											
Date										February 1998	
MODIFICATION TITLE: Mounted Water Ration Heater (MWRH) [MOD 11] 1-92-05-4426											
MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 1501, M1A2 = 0 TOTAL RQMT = 1501											
DESCRIPTION / JUSTIFICATION:											
The purpose of the Mounted Water Ration Heater (MWRH) is to provide the Abrams tank crew with the internal capability to heat water and rations during extended field operations without having to exit from the protection of the vehicle. NOTE: ATCOM / PM SOLDIER procured the MWRH. Abrams tank funds / data found herein are for the integration kit and installation only. Integration Kit is being fabricated by Anniston Army Depot (ANAD) so there is no Hardware Contract. Installation will also be by ANAD.											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:											
						<u>PLANNED</u>			<u>ACCOMPLISHED</u>		
Preliminary Design Review						4Q92			4Q92		
Critical Design Review						1Q93			1Q93		
Contractor Test & Eval.						1Q93			1Q93		
Development Test & Eval.						3Q93			3Q93		
Initial Operational Test & Eval.						3Q93			3Q93		
IPR Production Decision						2Q95			4Q95		
TDP Available						1Q96			1Q96		
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
1501		187	187	188	188	188	188	187			
Inputs											
Outputs											
Totals											
FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		Totals	
1		2	3	4	1	2	3	4	1	2	3
1501		187	187	188	188	188	188	187			
Inputs											
Outputs											
Totals											
METHOD OF IMPLEMENTATION: Depot Teams											
Contract Dates: FY 1997 N/A											
Delivery Date: FY 1997 N/A											
ADMINISTRATIVE LEADTIME: 3 Months											
PRODUCTION LEADTIME: 3 Months											
FY 1999 N/A											
FY 1999 N/A											

INDIVIDUAL MODIFICATION																			
Mounted Water Ration Heater (MWRH) [MOD 11] 1-92-05-4426																			
MODIFICATION TITLE (Cont):																			
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	\$
1501																		1501	
	1.9																		1.9
RDT&E																			
PROCUREMENT																			
Kit Quantity																			
Installation Kits																			
Installation Kits, Nonrecurring Equipment																			
Equipment, Nonrecurring																			
Engineering Change Orders																			
Data																			
Training Equipment																			
Support Equipment																			
Other																			
Interim Contractor Support																			
Installation of Hardware																			
FY 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 Installation																			
Total Procurement Cost																			

INDIVIDUAL MODIFICATION

MODIFICATION TITLE: System Enhancement Package (SEP) [MOD 12] 1-96-05-4505

MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 0, M1A2 = 627 TOTAL RQMT = 627

DESCRIPTION / JUSTIFICATION:

The System Enhancement Package (SEP) consists of M1A2 hardware and software changes which support the US Army's "Digitization of the Battlefield" effort. This effort upgrades the M1A2 electronics suite with improved processors, increased memory and software partitioning necessary for the M1A2 to operate in the Army's planned common operating environment and adds second generation thermal imaging capabilities to the Commander's Independent Thermal Viewer (CITV) and Gunner's Primary Sight (GPS) which are designed to significantly increase the capabilities of these Fire-Control sub-systems. This upgrade also allows for future growth without significant changes to the vehicle architecture so that insertion of future technology may be facilitated. These changes are designed to be exportable to other Abrams platforms, meet Army requirements for joint interoperability with Combined Arms Command & Control Systems and maximize commonality with other Ground Combat systems. For this effort procurement funds will include installation costs.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	PLANNED				ACCOMPLISHED			
Preliminary Design Review	-	-	-	-	3Q95			
Critical Design Review	-	-	-	-	2Q97			
Contractor Test & Eval.	-	-	-	-	3Q98			
Development Test & Eval.	-	-	-	-	1Q99			
Initial Operational Test & Eval.	-	-	-	-	2Q99			
IPR Production Decision	-	-	-	-	2Q99			
TDP Available	-	-	-	-	4Q99			

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				Totals			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete				
11	11	11	12	16	16	16	17									492				
627																				

METHOD OF IMPLEMENTATION: Contractor Teams ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 10 Months

Contract Dates: FY 1997 N/A FY 1998 N/A FY 1999 N/A

Delivery Date: FY 1997 N/A FY 1998 N/A FY 1999 N/A

INDIVIDUAL MODIFICATION												Date	February 1998																																																														
MODIFICATION TITLE: Embedded Battle Command (EBC) [MOD 13] 1-96-05-4516																																																																											
MODELS OF SYSTEMS AFFECTED: M1A2																																																																											
DESCRIPTION / JUSTIFICATION: Embedded Battle Command (EBC) is a part of Horizontal Battlefield Digitization (HBD). EBC is an annual software "drop" into each fielded M1A2 tank. There is no hardware associated with this modification. The purpose of EBC is to assure that all M1A2's have up - to - date and identical computer software with the latest State - of - the - Art changes installed on a regular basis. There is no delivery or installation schedule in the normal sense of these terms. Each fielded M1A2 will have its onboard computers upgraded every year.																																																																											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <u>PLANNED</u> Preliminary Design Review - - - - - 2Q97 Critical Design Review - - - - - 3Q97 Contractor Test & Eval. - - - - - 1Q98 Development Test & Eval. - - - - - 3Q98 Initial Operational Test & Eval. - - - - - 4Q98 IPR Production Decision - - - - - 2Q98 </td> <td style="width: 50%; vertical-align: top;"> <u>ACCOMPLISHED</u> 3Q97 4Q97 1Q98 </td> </tr> </table>														<u>PLANNED</u> Preliminary Design Review - - - - - 2Q97 Critical Design Review - - - - - 3Q97 Contractor Test & Eval. - - - - - 1Q98 Development Test & Eval. - - - - - 3Q98 Initial Operational Test & Eval. - - - - - 4Q98 IPR Production Decision - - - - - 2Q98	<u>ACCOMPLISHED</u> 3Q97 4Q97 1Q98																																																												
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Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																										
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																							
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Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																										
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	To																																																									
Totals																																																																											
Inputs N/A Outputs N/A																																																																											
METHOD OF IMPLEMENTATION: Fld Svc Rep Inst ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 8 Months Contract Dates: FY 1997 N/A FY 1998 N/A FY 1999 N/A Delivery Date: FY 1997 N/A FY 1998 N/A FY 1999 N/A																																																																											

INDIVIDUAL MODIFICATION																			February 1998	
MODIFICATION TITLE (Cont): Embedded Battle Command (EBC) [MOD 13] 1-96-05-4516																			Date	
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	\$		
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data (Software Only)								1.0			1.0			1.1			1.0	5.5		
Training Equipment																				
Support Equipment																				
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 Cost								1.0		1.0				1.1		1.0	5.5	9.6		

INDIVIDUAL MODIFICATION										Date	February 1998																																																																																											
MODIFICATION TITLE: External Auxiliary Pwr Unit (EAPU) [MOD 14] 1-85-05-4057																																																																																																						
MODELS OF SYSTEMS AFFECTED:																																																																																																						
M1 = 0, IPM1 = 0, M1A1 = 1836, M1A2 = 0 TOTAL RQMT = 1836																																																																																																						
DESCRIPTION / JUSTIFICATION: The current use of the Abrams Tank in stationary night defensive position, known as Silent Watch Mode, requires long duration idling of the AGT - 1500 vehicle main engine in order to generate the required electricity. The External Auxiliary Power Unit (EAPU) will provide power for this type of requirement at greatly reduced fuel usage and without main engine wear. The EAPU continuously delivers 2.2 KW of power at 28 Volts DC. The EAPU will be mounted in the left side of the turret bustle rack and will be fully integrated with the tank electrical systems. The EAPU has its own fuel supply and can provide power for 10 to 12 hours on one tank - full of diesel fuel. The Army is procuring an additional 336 EAPUs as a result of an FY97 Congressional plus-up. The EAPU will be used with the M1A2s until they are retrofitted with SEP (including the Under Armor EAPU).																																																																																																						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																																						
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </table>												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																											
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																					
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Inputs																																																																																																						
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Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																					
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To																																																																																				
Inputs																	1164	1500																																																																																				
Outputs																	1164	1500																																																																																				
METHOD OF IMPLEMENTATION: Contr./Depot Teams																																																																																																						
Contract Dates:																																																																																																						
FY 1997 SEP 97																																																																																																						
FY 1997 MAR 98																																																																																																						
Delivery Date:																																																																																																						
FY 1997 SEP 97																																																																																																						
FY 1997 MAR 98																																																																																																						
ADMINISTRATIVE LEADTIME: 4 Months																																																																																																						
PRODUCTION LEADTIME: 6 Months																																																																																																						

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont): External Auxiliary Pwr Unit (EAPU) [MOD 14] 1-85-05-4057													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RD&E													
PROCUREMENT													
Kit Quantity			336										1500
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													
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- kits													
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip -- 1164 Kits													
Total Installment													
Total Procurement Cost													

INDIVIDUAL MODIFICATION										Date	February 1998																																																																																																								
MODIFICATION TITLE: External Auxiliary Pwr Unit Upgrade (EAPUU) [MOD 15] 1-97-05-4521																																																																																																																			
MODELS OF SYSTEMS AFFECTED:																																																																																																																			
M1 = 0, IPM1 = 0, M1A1 = 1500, M1A2 = 0 TOTAL RQMT = 1500																																																																																																																			
DESCRIPTION / JUSTIFICATION: This modification is the Upgrade of 1500ea External Auxiliary Power Units (EAPU's) procured / fielded in FY91 / 94. The upgrade replaces the 12 volt starter with a 24 volt starter, adds an improved voltage regulator and a NATO standard receptacle and remove the 24 volt battery. These changes will increase the reliability and durability of the existing EAPU's. Installation costs for this modification are included in the hardware cost and the prime hardware contractor will also install the modification.																																																																																																																			
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="10" style="text-align: left;">DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</th> <th colspan="2" style="text-align: center;"><u>PLANNED</u></th> <th colspan="2" style="text-align: center;"><u>ACCOMPLISHED</u></th> </tr> <tr> <td colspan="10">Preliminary Design Review</td> <td colspan="2">3Q95</td> <td colspan="2">3Q95</td> </tr> <tr> <td colspan="10">Critical Design Review</td> <td colspan="2">2Q96</td> <td colspan="2">2Q96</td> </tr> <tr> <td colspan="10">Contractor Test & Eval.</td> <td colspan="2">4Q96</td> <td colspan="2">4Q96</td> </tr> <tr> <td colspan="10">Initial Operational Test & Eval.</td> <td colspan="2">2Q97</td> <td colspan="2">2Q97</td> </tr> <tr> <td colspan="10">IPR Production Decision</td> <td colspan="2">4Q97</td> <td colspan="2">4Q97</td> </tr> <tr> <td colspan="10">T D P Available</td> <td colspan="2">2Q98</td> <td colspan="2"></td> </tr> </table>												DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:										<u>PLANNED</u>		<u>ACCOMPLISHED</u>		Preliminary Design Review										3Q95		3Q95		Critical Design Review										2Q96		2Q96		Contractor Test & Eval.										4Q96		4Q96		Initial Operational Test & Eval.										2Q97		2Q97		IPR Production Decision										4Q97		4Q97		T D P Available										2Q98									
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:										<u>PLANNED</u>		<u>ACCOMPLISHED</u>																																																																																																							
Preliminary Design Review										3Q95		3Q95																																																																																																							
Critical Design Review										2Q96		2Q96																																																																																																							
Contractor Test & Eval.										4Q96		4Q96																																																																																																							
Initial Operational Test & Eval.										2Q97		2Q97																																																																																																							
IPR Production Decision										4Q97		4Q97																																																																																																							
T D P Available										2Q98																																																																																																									
Installation Schedule:																																																																																																																			
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Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To																																																																																																	
Totals																																																																																																																			
Inputs																																																																																																																			
Outputs																																																																																																																			
METHOD OF IMPLEMENTATION: Contractor Inst.																																																																																																																			
Contract Dates:																																																																																																																			
FY 1997 FEB 98 FY 1998 N / A																																																																																																																			
Delivery Date:																																																																																																																			
FY 1997 JUN 98 FY 1998 N / A																																																																																																																			
PRODUCTION LEADTIME: 4 Months																																																																																																																			
FY 1999 N / A																																																																																																																			
FY 1999 N / A																																																																																																																			

INDIVIDUAL MODIFICATION																		February 1998		
NBC Fire Warning (NBCFW) [MOD 16] 1-97-05-4524																		Date		
MODIFICATION TITLE (Cont):																				
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					1672				1051								1604		4327	
Installation Kits																				
Installation Kits, Nonrecurring Equipment							4.1		2.6									4.5		11.2
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																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits									1672	0.7	1051	0.4							1672	0.7
FY 2001 Eqpt -- kits																			1051	0.4
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip -- 1604 Kits																	1604	0.8	1604	0.8
Total Installation									1672	0.7	1051	0.4					1604	0.8	4327	1.9
Total Procurement Cost							4.1		3.3		0.4							5.3		13.1

INDIVIDUAL MODIFICATION												Date	February 1998																																																																																									
MODIFICATION TITLE: Hand-Held Fire Extinguisher (HHFE) [MOD 17] 1-97-05-4525																																																																																																						
MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 3003, M1A2 = 747 TOTAL RQMT = 3750																																																																																																						
DESCRIPTION / JUSTIFICATION:																																																																																																						
Under the terms of the 1988 Montreal Protocol in which 93 countries including the U.S.A. agreed to phase out Ozone Depleting Chemicals (ODS's), Halon 1301 used in the Abrams Tank for fire suppression must be eliminated. One current program does this in the engine compartment. This additional program will replace Halon Hand - Held Fire Extinguishers in the Abrams turret with new non - Halon extinguishers (The agent to be used is not yet known but testing to identify the best choice is underway). The funding identified here - in will support the initial buy of Abrams Hand - held Fire Extinguishers. Note that installation funding is not identified. This program is expected to result in a one - for - one replacement in each Abrams tank which can easily be carried out by tank crews so deliveries will be directly to tank units and no formal installation program is needed. Also note that four (4) extinguishers are required per tank so that 15000 will equip the 3750 tanks noted above while Reserve and N.G. tank requirements will be funded within their individual budgets.																																																																																																						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																																						
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	PLANNED	ACCOMPLISHED																																																																																																				
Preliminary Design Review	- - - - - 2Q97	3Q97																																																																																																				
Critical Design Review	- - - - - 2Q98																																																																																																					
Initial Operational Test & Eval.	- - - - - 4Q98																																																																																																					
IPR Production Decision	- - - - - 2Q99																																																																																																					
T D P Available	- - - - - 3Q99																																																																																																					
Installation Schedule:																																																																																																						
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Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																					
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																			
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Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																					
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																							
																Complete																																																																																						
																15000																																																																																						
Inputs																																																																																																						
Outputs																																																																																																						
METHOD OF IMPLEMENTATION: By Tank Crew																																																																																																						
Contract Dates: FY 1997 N/A FY 1998 N/A FY 1999 N/A																																																																																																						
Delivery Date: FY 1997 N/A FY 1998 N/A FY 1999 N/A																																																																																																						
ADMINISTRATIVE LEADTIME: 2 Months																																																																																																						
PRODUCTION LEADTIME: 4 Months																																																																																																						

INDIVIDUAL MODIFICATION																			
Hand-Held Fire Extinguisher (HHFE) [MOD 17] 1-97-05-4525																			
MODIFICATION TITLE (Cont):																			
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																			
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																			
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 Cost																			

INDIVIDUAL MODIFICATION										Date	February 1998		
MODIFICATION TITLE: M1A2 Field Mods (A2FM) [MOD 18] 1-97-05-4534													
MODELS OF SYSTEMS AFFECTED: M1A2													
DESCRIPTION/JUSTIFICATION: M1A2 Field Modifications (A2FM) represents funding for a continuing series of upgrades for M1A2 unique LRU's (Line Replaceable Unit's) and/or SRU's (Shop Replaceable Unit's). Examples of these include the Fire - Control Electronics Unit (FCEU), Commander's Integrated Display (CID) and various electronic "cards" (A6, A9, A10, A12 & A13 for example) for which modification rather than replacement is both feasible and cost effective. There is no set quantity for this modification. These upgrades will be applied to every fielded M1A2 tank as they are proven and approved and the number of fielded M1A2's will continue to increase. This program is expected to "run" as long as M1A2 production continues.													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:										PLANNED		ACCOMPLISHED	
IPR Production Decision - - - - -										2Q96		2Q96	
T D P Available - - - - -										2Q96		2Q96	

Installation Schedule:																											
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001										
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4							
Totals																											
Inputs																											
Outputs																											
FY 2002												FY 2003				FY 2004				FY 2005				To			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete							
Inputs																											
Outputs																											
METHOD OF IMPLEMENTATION: Contractor Team												ADMINISTRATIVE LEADTIME: 3 Months				PRODUCTION LEADTIME: 6 Months											
Contract Dates: FY 1997 FEB 97				FY 1998 FEB 98				FY 1999 FEB 99				FY 2000 FEB 00															
Delivery Date: FY 1997 AUG 97				FY 1998 AUG 98				FY 1999 AUG 99				FY 2000 AUG 00															

INDIVIDUAL MODIFICATION													
M1A2 Field Mods (A2FM) [MOD 18] 1-97-05-4534												Date	February 1998
MODIFICATION TITLE (Cont):													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity													
Installation Kits													
Installation Kits, Nonrecurring													
Equipment													
Equipment, Nonrecurring													
Engineering Change Orders													
Data													
Training Equipment													
Support Equipment													
Other													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- Kits													1.4
FY 1998 Eqpt -- Kits													0.9
FY 1999 Eqpt -- Kits													0.2
FY 2000 Eqpt -- kits													1.0
FY 2001 Eqpt -- kits													2.0
FY 2002 Eqpt -- kits													1.0
FY 2003 Eqpt -- kits													1.2
TC Equip-Kits													6.0
Total Installation													13.7
Total Procurement Cost													13.7

INDIVIDUAL MODIFICATION															Date	February 1998									
MODIFICATION TITLE: Matrix Support (MXSP) [MOD 19] N/A																									
MODELS OF SYSTEMS AFFECTED: WHOLE FLEET																									
DESCRIPTION / JUSTIFICATION: Matrix Support funds Government salaries in support of the entire Abrams Tank Modification program.																									
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																									
Installation Schedule:																									
Inputs	Outputs	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001						
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Totals																									
Inputs	Outputs	Totals	FY 2002				FY 2003				FY 2004				FY 2005				To Complete						
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4							
Inputs																									
Outputs																									
METHOD OF IMPLEMENTATION: PM / PEO Initiative																									
ADMINISTRATIVE LEADTIME: 0 Months																									
PRODUCTION LEADTIME: 0 Months																									
Contract Dates: FY 1997 N/A FY 1998 N/A FY 1999 N/A																									
Delivery Date: FY 1997 N/A FY 1998 N/A FY 1999 N/A																									

INDIVIDUAL MODIFICATION															Date	February 1998					
MODIFICATION TITLE: Prior Year Mod Installation (PYMI) [MOD 20] N / A																					
MODELS OF SYSTEMS AFFECTED: TOTAL RQMT = 6847.																					
DESCRIPTION / JUSTIFICATION: Continuing effort to install / apply modification kits procured during or before FY90. This effort was previously budgeted and executed within O&MA (P7M). Beginning in FY90 this effort transitioned from O&MA to PAA funding.																					
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: There are no hardware milestones associated with this program. All funding detailed here-in is for the installation of Modification Kits procured during or before FY90.																					
Installation Schedule:																					
Inputs Outputs	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
	6847																				
	Totals	100	99	99	21	21															
Inputs Outputs	Totals	FY 2002				FY 2003				FY 2004				FY 2005				To Complete			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
	Totals																				
METHOD OF IMPLEMENTATION: N / A ADMINISTRATIVE LEADTIME: N / A Months PRODUCTION LEADTIME: N / A Months																					
Contract Dates: FY 1997 N / A FY 1998 N / A FY 1999 N / A																					
Delivery Date: FY 1997 N / A FY 1998 N / A FY 1999 N / A																					

INDIVIDUAL MODIFICATION														Date		February 1998				
MODIFICATION TITLE (Cont):														Prior Year Mod Installation (PYMI) [MOD 20] N / A						
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	6847																		6847	
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	6408	65.0	397	4.9	42	0.5													6847	70.4
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 Installation	6408	65.0	397	4.9	42	0.5													6847	70.4
Total Procurement Cost		65.0		4.9		0.5														70.4

INDIVIDUAL MODIFICATION												Date	February 1998
MODIFICATION TITLE: M1A1-D Integration Kit OSIP NO. 21													
MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 1535, M1A2 = 0 TOTAL RQMT = 1535													
DESCRIPTION / JUSTIFICATION:													
This modification provides an integration kit for the Force XXI Battle Command Brigade and Below (FBCB2) into the M1A1 tank. Specifically, it complements the basic FBCB2 C2 integration kit by providing a far target designate capability for M1A1 tanks. The funding requested outfits the Army's first digital division. This modification includes integration of a pointing device into the tank and rework of the tank computer to provide range and elevation data necessary for far target designate. The installation costs for this modification are included in the hardware costs.													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:													
										PLANNED		ACCOMPLISHED	
Preliminary Design Review										2Q98			
Contractor Test & Eval.										3Q98			
Critical Design Review										4Q98			
IPR Production Decision										4Q98			
T D P Available										1Q99			
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
Inputs													
Outputs													
Totals													
Inputs													
Outputs													
Totals													
METHOD OF IMPLEMENTATION: Contractor Team													
Contract Dates:		FY 1997		N/A		FY 1998		N/A		FY 1999		JAN 99	
Delivery Date:		FY 1997		N/A		FY 1998		N/A		FY 1999		AUG 99	
ADMINISTRATIVE LEADTIME: 2 Months										PRODUCTION LEADTIME: 7 Months			

INDIVIDUAL MODIFICATION																		February 1998	
M1A1-D Integration Kit OSIP NO. 21																		Date	
MODIFICATION TITLE (Cont):																			
FINANCIAL PLAN: (\$ in Millions)																			
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RD&E																			
PROCUREMENT																			
Kit Quantity							125										1535		
Installation Kits																			
Installation Kits, Nonrecurring							20.3										1410		
Equipment																			
Equipment, Nonrecurring																			
Engineering Change Orders																			
Data																		291.7	
Training Equipment																			
Support Equipment																			
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									125								125		
FY 2001 Eqpt -- kits																			
FY 2002 Eqpt -- kits																			
FY 2003 Eqpt -- kits																			
TC Equip -- 1410 Kits																	1410		
Total Installment									125								1410		
Total Procurement Cost							20.3										1535		
																	291.7		

Exhibit P-40, Budget Item Justification Sheet													Date: February 1998
Appropriation / Budget Activity/Serial No:			P-1 Item Nomenclature:										
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles			ABRAMS UPGRADE PROGRAM (GA0750)										
Program Elements for Code B Items:			Other Related Program Elements:										
			Code:	A									
	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	172	34	100	120	120	120	120	105	90	88		1069	
Gross Cost	658.0	132.2	440.1	501.0	586.8	666.2	667.5	630.1	595.6	675.3	344.3	5897.1	
Less PY Adv Proc	196.7	33.9	181.3	297.2	258.2	253.5	262.9	242.7	153.6	144.3		2024.4	
Plus CY Adv Proc	230.6	181.3	297.2	258.2	253.5	262.9	242.7	153.6	144.3			2024.4	
Net Proc (P-1)	691.9	279.6	556.0	462.0	582.2	675.6	647.3	541.0	586.3	530.9	344.3	5897.1	
Initial Spares	1.6	2.7	17.1	9.2	13.7	9.8	9.9	10.8	16.9	16.0	38.0	145.7	
Total Proc Cost	693.5	282.3	573.1	471.2	595.8	685.4	657.2	551.8	603.2	546.9	382.3	6042.8	
Flyaway U/C	3.5	3.6	3.7	3.6	4.3	4.9	4.9	5.2	5.7	6.8			
Wpn Sys Proc U/C	3.8	4.0	4.6	4.3	5.0	5.6	5.6	6.1	6.8	7.9			

DESCRIPTION: The Abrams Tank Upgrade Program supports the Department of Army vision for the future. The Upgrade Program will reconfigure M1 Tanks to the M1A2 configuration making it a more survivable and lethal tank. This includes the Commander's Independent Thermal Viewer (CITV), Improved Commander's Weapon Station (ICWS), Position Navigation (POS/NAV) equipment, Radio Interface Unit (RIU), Core Architecture, D. U. Armor, 120mm Gun and Nuclear, Biological and Chemical (NBC) protection. In FY99 2nd Generation Forward Looking Infrared (FLIR) and vehicle core electronic upgrades will be cut into production.

JUSTIFICATION: The Upgrade Program will modernize the U.S. Army's armor force to enhance the combat effectiveness of the Abrams Tank Fleet and maintain the key elements of the tank industrial base.

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKO CMBT VEHS / 1 / Tracked Combat Vehicles			P-1 Line Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750)			Weapon System Type:			Date: February 1998		
WTCV Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. Basic Vehicle	A		215393	100	2154	293949	120	2450	301095	120	2509	322228	120	2685
2. Armor			35742	80	447	27569	122	226	39292	121	325	40186	120	335
3. H/TEU			5850	200	29	7170	240	30	6748	240	28			
4. Engine (DECU)			2347	100	23	2655	120	22	3072	120	26	3114	120	26
5. Transmission			22684	100	227	22534	120	188	23482	120	196	23799	120	198
6. Final Drive			1379	200	7	1491	240	6	1375	240	6	1375	240	6
7. Fire Control			32711	100	327	39485	120	329	39347	120	328	1805	120	15
8. Track			3327	15600		5678	18720		5696	18720		5696	18720	
9. Roadwheels			933	3200		1421	3840		1421	3840		1421	3840	
10. Gun Mounts			2142	50	43	2057	60	34	2558	60	43	3290	60	55
11. Gun			11672	100	117	11827	120	99	12073	120	101	15487	120	129
12. Driver's Night Viewer			539	100	5	599	120	5	617	120	5	626	120	5
13. Basic Issue Items			752	100	8	804	120	7	769	120	6	915	120	8
14. MILSTRIPS/RIK			684	100	7	502	120	4	663	120	6	672	120	6
15. VIS			568	60	9	978	120	8	1049	120	9	1135	120	9
16. Special Tools & Test Sets			3376			753			18400			15600		
17. Contract Engineering			59087			62557			65162			72083		
18. Project Mgt Administration			2401			1685			1711			1726		
19. Matrix Support			7913			491			4324			4361		
20. Auxiliary Services			2992			245			2270			3251		
21. Engineering Support			10901			2643			6956			7015		
22. Quality Support			1184			926			1080			1089		
23. Testing			4114			4172			4237			4273		
24. Transportation (FDT)			525			619			629			634		
25. Total Package Fielding			10884			8236			8389			8735		
26. II Gen FLIR									9030			96636	120	805
27. STS C2 FFTA 01									1038			1017		
28. Pre Mod Depot Maint									24316	120	203	28026	120	234
29. Industrial Base/Shut-Down														
30. NonRecurring Cost (Pilots,GFE Seed,IPT														
31. Service Life Extension (SLE)														
TOTAL			440100			501046			586799			666195		
Gross P-1 End Cost			440100	100	4401	501046	120	4175	586799	120	4890	666195	120	5552
Less: Prior Year Adv Proc			181306			297218			258171			253534		
Net P-1 Full Funding Cost			258794			203828			328628			412661		
Plus: P-1 CY Adv Proc			297218			258171			253534			262942		
Other Non P-1 Costs			19774			24955			13662			9800		
Initial Spares			17057			9248								
Mods														
TOTAL			592843			496202			595824			685403		

Exhibit P-5a, Budget Procurement History and Planning										Date: February 1998		
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles				Weapon System Type:		P-1 Line Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750)						
WBS Cost Elements: Fiscal Years		Contractor and Location		Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
1. Basic Vehicle												
FY 96		GDLS/1		/2(1)	TACOM-Warren	Jul-96	Oct-96	100	2154	Yes		Jan-95
FY 97		GDLS/1		/2(2)	TACOM-Warren	Dec-96	Aug-97	120	2450	Yes		Jan-95
FY 98		GDLS/1		/2(3)	TACOM-Warren	Feb-98	Aug-98	120	2509	Yes		Jan-95
FY 99		GDLS/1		/2(4)	TACOM-Warren	Feb-99	Aug-99	120	2685	Yes		Jan-95
2. Armor/3												
FY 96		LITCO/5		SS/CPFF	DOE/4	Mar-95	Apr-96	80	447	NA		NA
FY 97		LITCO/5		SS/CPFF	DOE/4	Mar-96	Feb-97	122	226	NA		NA
FY 98		LITCO/5		SS/CPFF	DOE/4	Feb-97	Feb-98	121	325	NA		NA
FY 99		LITCO/5		SS/CPFF	DOE/4	Jan-98	Feb-99	120	335	NA		NA
3. H/TEU												
FY 96		GDLS/1		SS/FFP	TACOM-Warren/6	Apr-95	Apr-96	200	29	Yes		Feb-96
FY 97		GDLS/1		C/FFP	TACOM-ACALA/7	May-96	Feb-97	240	30	Yes		Feb-96
FY 98		GDLS/1		OPTION	TACOM-ACALA/7	Mar-97	Feb-98	240	28	Yes		
4. Engine (DECU)/10												
FY 96		AlliedSignal/8		SS/FFP	TACOM-Warren	Feb-95	Apr-96	100	23	Yes		Aug-94
FY 97		AlliedSignal/8		OPTION	TACOM-Warren	Mar-96	Feb-97	120	22	Yes		Aug-94
FY 98		AlliedSignal/8		OPTION	TACOM-Warren	Apr-97	Feb-98	120	26	Yes		Aug-94
FY 99		AlliedSignal/8		SS/FFP	TACOM-Warren	Jan-98	Feb-99	120	26	Yes		Sep-97
5. Transmission												
FY 96		Allison Transmission Div/9		OPTION	TACOM-Warren	Apr-95	Apr-96	100	227	Yes		Oct-93
FY 97		Allison Transmission Div/9		OPTION	TACOM-Warren	Dec-95	Feb-97	120	188	Yes		Oct-93
FY 98		Allison Transmission Div/9		SS/FFP/CF	TACOM-Warren	Sep-97	Feb-98	120	196	Yes		Dec-96
FY 99		Allison Transmission Div/9		OPTION	TACOM-Warren	Feb-98	Feb-99	120	198	Yes		Dec-96
REMARKS:												
/1. General Dynamics Land System, Warren, MI												
/2. SS/FFP/M5												
/3. Armor production leads tank production												
/4. Department of Energy												
/5. Lockheed Idaho Technologies Company, Idaho Falls, Idaho												
/6. Awarded to GDLS as part of the Long Lead Material Contract												
/7. Awarded to GDLS on a separate competitive contract												
/8. AlliedSignal/Control & Accessories, Tucson, AZ												
/9. Allison Transmission Div, GM Corp, Indianapolis, IN												
/10. Awards are against a Navy BOA Contract therefore no RFP issued only letter with new requirements.												

Exhibit P-5a, Budget Procurement History and Planning												
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles					Weapon System Type:			P-1 Line Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750)				
WBS Cost Elements: Fiscal Years		Contractor and Location		Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
6. Final Drive		TACOM NICP		REQ		Mar-95	Apr-96	200		7	Yes	NA
FY 96		LOC Performance, Inc/1		C/FFP	TACOM-Warren	Nov-95	Feb-97	240		6	Yes	Apr-95
FY 97		LOC Performance, Inc/1		OPTION	TACOM-Warren	Jan-97	Feb-98	240		6	Yes	Apr-95
FY 98		LOC Performance, Inc/1		OPTION	TACOM-Warren	Apr-98	Feb-99	240		6	Yes	Apr-95
FY 99												
7. Fire Control		Hughes/2/Various		Various	TACOM-ACALA	Var	Apr-96	100	327	Yes		Var
FY 96		Hughes/2/Various		Various	TACOM-ACALA	Var	Feb-97	120	329	Yes		Var
FY 97		Hughes/2/Various		Various	TACOM-ACALA	Var	Feb-98	120	328	Yes		Var
FY 98		Hughes/2/Various		Various	TACOM-ACALA	Var	Feb-99	120	15	Yes		Var
FY 99												
8. Track		Goodyear Tire & Rubber/3		C/FFP	TACOM-Warren	Feb-96	Apr-96	15600		Yes		Oct-95
FY 96		Goodyear Tire & Rubber/3		OPTION	TACOM-Warren	Mar-96	Feb-97	18720		Yes		Oct-95
FY 97		Goodyear Tire & Rubber/3		OPTION	TACOM-Warren	Nov-96	Feb-98	18720		Yes		Oct-95
FY 98		Goodyear Tire & Rubber/3		SS/FFP	TACOM-Warren	Apr-98	Feb-99	18720		Yes		Dec-97
FY 99												
9. Roadwheels		B&C Corp/4		/5	TACOM-Warren	Feb-95	Apr-96	3200		Yes		Jul-92
FY 96		B&C Corp/4		/5	TACOM-Warren	Mar-96	Feb-97	3840		Yes		Sep-95
FY 97		B&C Corp/4		/5	TACOM-Warren	Dec-96	Feb-98	3840		Yes		Sep-95
FY 98		B&C Corp/4		/5	TACOM-Warren	Apr-98	Feb-99	3840		Yes		Sep-95
FY 99												
REMARKS: /1. Loc Performance, Inc, Plymouth, MI /2. Hughes Aircraft, El Segundo, CA /3. Goodyear Tire & Rubber Co., Akron, OH /4. B&C Corp, Barberton, OH /5. Requirement Contract/FFP												

Exhibit P-5a, Budget Procurement History and Planning												Date: February 1998		
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles					Weapon System Type:					P-1 Line Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750)				
WBS Cost Elements: Fiscal Years		Contractor and Location		Contract Method and Type	Location of PCO		Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date	
10. Gun Mounts/1 FY 96 FY 97 FY 98 FY 99		RIA		WR			Jun-95	Apr-96	50	43	Yes			NA
		RIA		WR			Mar-96	Feb-97	60	34	Yes			NA
		RIA		WR			Feb-97	Feb-98	60	43	Yes			NA
		RIA		WR			Apr-98	Feb-99	60	55	Yes			NA
11. Gun FY 96 FY 97 FY 98 FY 99		Watervliet		WR			Mar-95	Apr-96	100	117	Yes			NA
		Watervliet		WR			Aug-96	Feb-97	120	99	Yes			NA
		Watervliet		WR			Mar-97	Feb-98	120	101	Yes			NA
		Watervliet		WR			Apr-98	Feb-99	120	129	Yes			NA
12. Driver's Night Viewer FY 96 FY 97 FY 98 FY 99		CECOM N1CP		REQ	CECOM CECOM		Jul-95	Apr-96	100	5	Yes			NA
		CECOM N1CP		REQ			Jun-96	Feb-97	120	5	Yes			NA
		CECOM N1CP		REQ			Sep-97	Feb-98	120	5	Yes			NA
		TBD		TBD			Jul-98	Feb-99	120	5	Yes			NA
13. Basic Issue Items FY 96 FY 97 FY 98 FY 99		TACOM-ACALA		WR			May-95	Apr-96	100	8	Yes			NA
		TACOM-ACALA		WR			May-96	Feb-97	120	7	Yes			NA
		TACOM-ACALA		WR			Feb-97	Feb-98	120	6	Yes			NA
		TACOM-ACALA		WR			Apr-98	Feb-99	120	8	Yes			NA
REMARKS: /1. RIA, Rock Island Arsenal, Rock Island, IL produces 50% of gun mounts. The remainder are procured with the GDLS contract.														

Exhibit P-5a, Budget Procurement History and Planning										
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles					Weapon System Type:		Date: February 1998			
P-1 Line Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750)										
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
14. MILSTRIPS/RIK										
FY 96	NA	REQ/WR		Various	Apr-96	100	7	Yes		NA
FY 97	NA	REQ/WR		Various	Feb-97	120	4	Yes		NA
FY 98	NA	REQ/WR		Various	Feb-98	120	6	Yes		NA
FY 99	NA	REQ/WR		Various	Feb-99	120	6	Yes		NA
15. VIS/1										
FY 96/3	Grumman/2	OPTION	CECOM	Dec-95	Apr-96	60	9	Yes		Sep-91
FY 97	Grumman/2	OPTION	CECOM	May-96	Feb-97	120	8	Yes		Sep-91
FY 98	Grumman/2	OPTION	CECOM	Apr-97	Feb-98	120	9	Yes		Sep-91
FY 99	Grumman/2	OPTION	CECOM	Jun-98	Feb-99	120	9	Yes		Sep-91
26. II Gen FLIR										
FY 99	Various	SS/FFP	CECOM	Jan-98	Feb-99	120	805	Yes		Sep-96
REMARKS: /1. VIS, Vehicular Intercommunication System /2. Grumman Aerospace Corp, Bethpage, NY /3. 40 VIS Components were previously procured in Phase I										

FY 98 / 99 BUDGET PRODUCTION SCHEDULE										P-1 Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750)										Date: February 1999																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
COST ELEMENTS				MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 04										Fiscal Year 05																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Exhibit P-40, Budget Item Justification Sheet										Date: February 1998		
Appropriation / Budget Activity/Serial No:				P-1 Item Nomenclature:								
PROCUREMENT OF WPNS & TRKO CMBT VEHs / 1 / Tracked Combat Vehicles				ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)								
Program Elements for Code B Items:				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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less PY Adv Proc												
Plus CY Adv Proc		181.3	297.2	258.2	253.5	262.9	242.7	153.6	144.3			1793.8
Net Proc (P-1)	0.0	181.3	297.2	258.2	253.5	262.9	242.7	153.6	144.3	0.0	0.0	1793.8
Initial Spares												
Total Proc Cost	0.0	181.3	297.2	258.2	253.5	262.9	242.7	153.6	144.3	0.0	0.0	1793.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Advance procurement for long lead materials to support procurement for the Abrams Upgrade Program.

JUSTIFICATION: Without advance procurement funds, procurement of components, assemblies and raw materials to support procurement, long lead time would not be possible and would cause a break in production.

Advance Procurement Requirements Analysis-Funding (P-10A)										First System Award Date:		First System Completion Date:		Date:	
Appropriation / Budget Activity/Serial No:										Jul-98		Oct-98		February 1998	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles										P-1 Line Item Nomenclature / Weapon System:					
										ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)					
										(\$ in Millions)					
	PLT (mos)	When Rqd (mos)	Pr Yrs	1995	1996	1997	1998	1999	2000	2001	2002	2003	To Comp	Total	
End Item Quantity:	*			100	120	120	120	120	105	90	88				
1. Basic Vehicle	18	6		77.1	193.0	142.8	100.2	116.9	129.5	57.3	80.8			897.7	
2. Armor	19	6		20.0	7.9	9.8	10.0	10.2	10.6	10.8	2.2			81.7	
3. H/TEU	13	6		5.9	7.2	6.7								19.7	
4. Engine (DECU)	20	6		2.1	2.5	3.1	3.1	3.1	2.8	2.5	2.5			21.7	
5. Transmission	19	6		22.3	22.4	23.4	23.6	24.0	21.4	18.7	18.7			174.5	
6. Final Drives	16	6		1.4	1.5	1.4	1.4	1.4	1.3	1.1	1.1			10.5	
7. Fire Control	16	6		32.5	39.3	38.8	1.8	1.8	1.6	1.5	1.5			118.7	
8. Track	19	6		3.3	5.7	5.7	5.7	5.8	5.1	4.5	4.5			40.2	
9. Roadwheels	16	6		0.9	1.4	1.4	1.4	1.4	1.3	1.1	1.1			10.1	
10. Gun Mounts	16	6		2.1	2.1	2.6	3.3	2.6	2.4	2.1	2.1			19.2	
11. Gun	16	6		11.3	11.4	10.6	15.4	12.4	11.1	9.9	9.9			91.9	
12. Driver's Night Viewer	13	6		0.5	0.6	0.5	0.6	0.6	0.6	0.5	0.5			4.5	
13. Basic Issue Items	16	6		0.7	0.8	0.7	0.9	0.8	0.7	0.6	0.6			5.8	
14. MILSTRIPS/RIK	16	6		0.6	0.5	0.7	0.7	0.7	0.6	0.5	0.5			4.7	
15. VIS	16	6		0.6	1.0	1.0	1.1	1.1	1.0	0.9	0.9			7.7	
26. II Gen FLIR	20	8				9.0	84.3	80.1	52.7	41.6	17.5			285.3	
29. Industrial Base/"Shut Down"															
Total Advance Procurement				181.3	297.2	258.2	253.5	262.9	242.7	153.6	144.3			1793.8	

Description:
* PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.
ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.
PLT includes the 6 months requirement for components prior to tank delivery.

Description:

- * PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.
- ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.
- PLT includes the 6 months requirement for components prior to tank delivery.

Advance Procurement Requirements Analysis-Budget Justification (P-10B)									
Appropriation / Budget Activity/Serial No:				Date: February 1998					
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles				P-1 Line Item Nomenclature / Weapon System:					
				ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)					
				(\$ in Millions)					
End Item	PLT (mos)	Quantity Per Assembly	Unit Cost	1998			1999		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
1. Basic Vehicle	18	1	0.8	120	Various	100.2	120	Various	116.9
2. Armor	19	1	0.1	121	Jan 98	10.0	121	Jan 99	10.2
3. H/TEU	20	1	0.0	120	Jan 98	3.1	120	Dec 98	3.1
4. Engine (DECU)	19	1	0.2	120	Feb 98	23.6	120	Jan 99	24.0
5. Transmission	16	2	0.0	240	Apr 98	1.4	240	Apr 99	1.4
6. Final Drives	16	1	0.0	120	Various	1.8	120	Various	1.8
7. Fire Control	19	156	0.0	18720	Apr 98	5.7	18720	Nov 98	5.8
8. Track	16	32	0.0	3840	Apr 98	1.4	3840	Apr 99	1.4
9. Roadwheels	16	1	0.1	60	Apr 98	3.3	60	Apr 99	2.6
10. Gun Mounts	16	1	0.1	120	Apr 98	15.4	120	Apr 99	12.4
11. Gun	13	1	0.0	120	Jul 98	0.6	120	Jul 99	0.6
12. Driver's Night Viewer	16	1	0.0	120	Apr 98	0.9	120	Apr 99	0.8
13. Basic Issue Items	16	1	0.0	120	Various	0.7	120	Various	0.7
14. MILSTRIPS/RIK	16	1	0.0	120	Jun 98	1.1	120	Apr 99	1.1
15. VIS	20	1	0.7	120	Jan 98	84.3	120	Dec 98	80.1
26. II Gen FLIR									
Total Advance Procurement						253.5			262.9
Description: * PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors. ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts. PLT includes the 6 months requirement for components prior to tank delivery.									

Advance Procurement Requirements Analysis-Present Value Analysis (P-10C)												
Appropriation / Budget Activity/Serial No:					Date: February 1998							
PROCUREMENT OF WPNS & TRKD CMBT VEHs / 1 / Tracked Combat Vehicles					P-1 Line Item Nomenclature / Weapon System: ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)							
(\$ in Millions)												
	Pr Yrs	1995	1996	1997	1998	1999	2000	2001	2002	2003	To Comp	Total
Proposal w/o AP												
Then Year Cost	658	132	440	501	587	666	668	630	596	675	344	5897
Constant Year Cost	692	136	447	502	578	651	642	595	552	613	303	5711
Present Value	762	146	466	509	571	625	599	540	488	527	251	5482
AP Proposal												
Then Year Cost	692	280	556	462	582	676	647	541	586	531	344	5897
Constant Year Cost	753	289	564	463	574	660	622	511	543	482	303	5764
Present Value	871	310	588	469	566	634	581	464	480	414	251	5626
AP Savings (Difference)												
Then Year Cost	34	148	116	-39	-5	9	-20	-89	-9	-144		
Constant Year Cost	61	153	118	-39	-5	9	-20	-84	-9	-131		53
Present Value	109	164	123	-40	-5	9	-18	-76	-8	-113		145
Remarks:												

Advance Procurement Requirements Analysis-Execution (P-10D)												
Appropriation / Budget Activity/Serial No:				Date: February 1998								
PROCUREMENT OF WPNS & TRKO CMBT VEHS / 1 / Tracked Combat Vehicles				P-1 Line Item Nomenclature / Weapon System:								
				ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)								
(\$ in Millions)												
End Item	PLT (mos)	1996			1997			1998			1999	
		Contract Forecast Date	Actual Contract Date	Total Cost Request	Actual Contract Cost	Qty	Contract Forecast Date	Actual Contract Date	Total Cost Request	Actual Contract Cost	Qty	Contract Forecast Date
1. Basic Vehicle	18	120 Various	Various	193.0	193	120 Various	Various	142.8	142.7	120 Various	Various	120 Various
2. Armor	19	122 Mar-96	Mar-96	7.9	8	121 Mar-97	Feb-97	9.8	9.8	120 Jan-98	Jan-98	120 Jan-99
3. H/TEU	20	240 May-96	May-96	7.2	7	240 Mar-97	Mar-97	6.7	6.7	120 Jan-98	Jan-98	120 Dec-98
4. Engine (DECU)	20	120 Mar-96	Mar-96	2.5	3	120 Mar-97	Apr-97	3.1	3.1	120 Jan-98	Jan-98	120 Dec-98
5. Transmission	19	120 Dec-95	Various	22.4	22	120 Dec-96	Sep-97	23.4	23.4	120 Feb-98	Feb-98	120 Jan-98
6. Final Drives	16	240 Mar-96	Nov-95	1.5	1	240 Mar-97	Jan-97	1.4	1.4	240 Apr-98	Apr-98	240 Apr-99
7. Fire Control	16	120 Various	Various	39.3	39	120 Various	Various	38.8	38.8	120 Various	Various	120 Various
8. Track	19	18720 Mar-96	Mar-96	5.7	6	18720 Mar-97	Nov-96	5.7	5.7	18720 Apr-98	Apr-98	18720 Nov-98
9. Roadwheels	16	3840 Mar-96	Mar-96	1.4	1	3840 Mar-97	Dec-96	1.4	1.4	3840 Apr-98	Apr-98	3840 Apr-99
10. Gun Mounts	16	60 Mar-96	Mar-96	2.1	2	60 Mar-97	Feb-97	2.6	2.6	60 Apr-98	Apr-98	60 Apr-99
11. Gun	16	120 Apr-96	Apr-96	11.4	11	120 Mar-97	Mar-97	10.6	10.6	120 Apr-98	Apr-98	120 Apr-99
12. Driver's Night Viewer	13	120 Apr-96	Jun-96	0.6	1	120 Jul-97	Sep-97	0.5	0.6	120 Jul-98	Jul-98	120 Jul-99
13. Basic Issue Items	16	120 Mar-96	May-96	0.8	1	120 May-97	Feb-97	0.7	0.8	120 Apr-98	Apr-98	120 Apr-99
14. MILSTRIPS/RIK	16	120 Various	Various	0.5	0	120 Various	Various	0.7	0.5	120 Various	Various	120 Various
15. VIS	16	120 Apr-96	May-96	1.0	1	120 Apr-97	Apr-97	1.0	1.0	120 Jun-98	Jun-98	120 Apr-99
26. II Gen FLIR	20					120 Feb-97	Apr-97	9.0	9.0	120 Jan-98	Jan-98	120 Dec-98
Total Advance Procurement				297.2	297.2			258.2	258.2			
Description:												
* PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.												
ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.												

Description:
 * PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.
 ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)																
Appropriation / Budget Activity/Serial No:										Date: February 1998						
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles										P-1 Line Item Nomenclature / Weapon System: ABRAMS UPGRADE PROGRAM (ADV PROG) (GA0760)						
(\$ in Millions)																
	Total Program	FY 96												Total Obl/Exp (Cum)	Ending Balance (Cum)	
		1995					1996									
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep			
FY 96																
Obl Plan	297.2		1.1	23.5	28.8	4.6	37.0	15.3	12.0	1.3	168.4	5.2	297.2	.0		
Actual	297.2	1.1	1.1	23.5	28.8	4.6	33.6	17.0	8.2	.8	.8	84.1	267.9	29.3		
Exp Plan	297.2							.4	.4	.8		5.1	11.8	285.4		
Actual	297.2							.4	.4	.8		4.5	13.1	284.1		
FY 97																
Obl Plan	258.2													258.2		
Actual	258.2													258.2		
Exp Plan	258.2													258.2		
Actual	258.2													258.2		
FY 98																
Obl Plan	253.5													253.5		
FY 99																
Obl Plan	262.9													262.9		
Narrative:																

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)													
Appropriation / Budget Activity/Serial No:												Date: February 1998	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles												P-1 Line Item Nomenclature / Weapon System:	
ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)													
(\$ in Millions)													
FY 97													
1996													
1997													
Total													
Ob/Exp													
(Cum)													
Ending													
Balance													
(Cum)													

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)																
Appropriation / Budget Activity/Serial No:										Date: February 1998						
PROCUREMENT OF WPNS & TRKD OMBT VEHS / 1 / Tracked Combat Vehicles										P-1 Line Item Nomenclature / Weapon System: ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)						
(\$ In Millions)																
	Starting Balance	FY 98												Total Obl/Exp (Cum)	Ending Balance (Cum)	
		1997														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep			
FY 96																
Obl Plan	.0			.0											.0	.0
Actual																
Exp Plan	172.4	8.6	8.6	8.6	8.6	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	104.0	68.4
Actual	159.4	11.7	29.2	13.1											54.0	105.4
FY 97																
Obl Plan	.0															.0
Actual	1.7	.0	1.4												1.5	.2
Exp Plan	240.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	96.0	144.0
Actual	246.8	3.0	7.8	11.5											22.2	224.5
FY 98																
Obl Plan	253.5				174.1	23.6		29.0	8.0	2.0	1.1	13.8	1.9	253.5		262.9
FY 99																
Obl Plan	262.9															
Narrative:																

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)															
Appropriation / Budget Activity/Serial No:										Date: February 1998					
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles										P-1 Line Item Nomenclature / Weapon System: ABRAMS UPGRADE PROGRAM (ADV / PROC) (GA0750)					
		FY 99 (\$ in Millions)													
	Starting Balance	1998			1999									Total Obl/Exp (Cum)	Ending Balance (Cum)
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
FY 96	.0	2.8	2.9	2.8	2.8	2.8	2.8	2.9	2.8	2.9	2.9	2.9	2.9	34.2	.0
Obl Plan															
Actual															
Exp Plan	68.4														
Actual	159.4														
FY 97	.0	7.3	7.4	7.3	7.3	7.3	7.3	7.3	7.4	7.3	7.4	7.4	7.4	88.1	.0
Obl Plan															
Actual															
Exp Plan	144.0														
Actual	246.8														
FY 98	.0														.0
Obl Plan															
Actual															
Exp Plan															
Actual															
FY 99	262.9	5.8	77.6	140.2				19.6	1.4	3.7	.6	11.8	2.2	262.9	.0
Obl Plan															
Actual															
Exp Plan															
Actual															
Narrative:															

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)														
Appropriation / Budget Activity/Serial No:										Date: February 1998				
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles										P-1 Line Item Nomenclature / Weapon System: ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)				
(\$ in Millions)														
	Starting Balance	FY 02										Total Obl/Exp (Cum)	Ending Balance (Cum)	
		2001					2002							
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul			Aug
FY 96														
Obl Plan	.0													.0
Actual														.0
Exp Plan	.0													.0
Actual	159.4													159.4
FY 97														
Obl Plan	.0													.0
Actual	63.0													63.0
Exp Plan	12.1													.0
Actual	246.8	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.0	12.1	246.8
FY 98														
Obl Plan	.0													.0
FY 99														
Obl Plan														
Narrative:														

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles						Date: February 1998						
P-1 Item Nomenclature: ITEMS LESS THAN \$2.0M (TCV-WTCV) (GL3100)												
Program Elements for Code B Items:						Other Related Program Elements:						
Code:												
	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	17.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.0	18.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	17.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.0	18.3
Initial Spares												
Total Proc Cost	17.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.0	18.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Provides for procurement/assembly of full tracked vehicle organizational maintenance tool/shop sets. This equipment has multi-applications and is essential for effective maintenance on all tracked vehicles.

JUSTIFICATION: Required to provide organizational maintenance personnel with equipment essential to maintain full tracked vehicles in an acceptable state of readiness. Funding of this program will establish and maintain the operational capability of the Bradley Fighting Vehicle, M1 Tank, etc.

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKO CMBT VEHS / 1 / Tracked Combat Vehicles			P-1 Line Item Nomenclature: ITEMS LESS THAN \$2.0M (TCV-WTCV) (GL3100)			Weapon System Type:			Date: February 1998		
WTCV Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
1. Shop Set, Contact and Emergency Repair, FM		G352	11	1	11	11	1	11	44	3	15	33	3	11
2. Tool Set, Full Tracked Vehicle, Org Maint, Sup 2		G649							92	7	13	90	7	13
3. Shop Equip, Contact Repair Shop, Light Vhl Mtd		G314										9	1	9
TOTAL			11			11			136			132		

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
PROCUREMENT OF WPNS & TRKD CMVT VEHs / 1 / Tracked Combat Vehicles												P-1 Item Nomenclature:
Program Elements for Code B Items:												PRODUCTION BASE SUPPORT (TCV-WTCV) (GA0050)
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	1430.0	14.4	5.3	9.3	8.8	8.9	9.1	9.5	10.2	10.2	0.0	1515.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1430.0	14.4	5.3	9.3	8.8	8.9	9.1	9.5	10.2	10.2	0.0	1515.6
Initial Spares												
Total Proc Cost	1430.0	14.4	5.3	9.3	8.8	8.9	9.1	9.5	10.2	10.2	0.0	1515.6
Flyaway U/C												
Wpn Sys Proc U/C												
DESCRIPTION: This program provides for Provision of Industrial Facilities (PIF). Funds are used to establish, modernize, expand or replace facilities owned by the Army. It provides Production Support Equipment Replacement (PSR) and Modernization (MOD) to Government owned equipment, real property used in production and production testing of Weapons and Tracked Combat Vehicles. This program also provides funding for the Layaway of Industrial Facilities (LIF) for preservation of equipment and Environmental (Env) restoration for the portions of plants which are no longer required for active production. JUSTIFICATION: The FY99 request supports PSR to Government owned equipment at Lima Army Tank Plant. Included are a waste water discharge monitoring and separation system, repaving of roadways, roof/downspouts, and design/installation of a point source air ventilation system. Also, funding will be used to replace and rehabilitate unscheduled/unplanned emergency repairs of Government owned production machinery, equipment and facility items currently in use at the contractor plant in Muskegon, MI. and Scranton, Pa.												
				FY 1996	FY 1997	FY 1998	FY 1999					
			PIF	3.443	8.926	8.401	8.511					
			LIF	0.432	0.360	0.357	0.350					
			ENV	1.448								
			TOTAL	5.323	9.286	8.758	8.861					

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles				P-1 Line Item Nomenclature: PRODUCTION BASE SUPPORT (TCV- WTCV) (GA0050)				Weapon System Type:		Date: February 1998	
WTCV Cost Elements			FY 96		FY 97		FY 98		FY 99					
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
49X3002 Omnibus Design Provided for design of construction/equip projects in support of Tank production.			\$0.394											
49X4281 LIF, Layaway/Redistribution Various Government & Contractor Facilities Provides for plant clearance and restoration of those areas no longer required for active production. Packing, crating, handling & transportation GFE retained for future prod.			\$0.432		\$0.360	\$0.357			\$0.350					
49X6037 PSR, LIMA Army Tank Plant (LATP) Provides non-routine maintenance of real property facilities, I.P.E. purchase & rehab. of production equipment			\$2.299		\$4.427	\$5.626			\$4.000					
49X6040 PSR, Scranton/Muskegon Facilities Provides replacement/rehab of Government owned equipment at contractor plants.			\$0.750		\$4.499	\$2.775			\$3.711					
49X6042 PSR, LIMA Army Tank Plant (LATP) Provides elimination of buildings/restoring sites to ensure comp w/Pollution Prevention Executive Order 12856.									\$0.304					
49X6047 PSR, LIMA Army Tank Plant (LATP) Provides compliance with Ohio Dept. of Trans. resurfacing cycle-asphaltic/concrete									\$0.218					
49X6048 PSR, LIMA Army Tank Plant (LATP) Provides for roof/downspout replacement									\$0.278					
19X8173 ENV, Stratford Army Engine Plant Provided for correction of OSHA/EPA deficien- cies/minimum facility project in support of the aircraft and tank production.			\$1.448											
TOTAL			\$5.323		\$9.286	\$8.758			\$8.861					

Exhibit P-40, Budget Item Justification Sheet										Date: February 1998		
Appropriation / Budget Activity/Serial No:		P-1 Item Nomenclature:										
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles		ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000)										
Program Elements for Code B Items:		Other Related Program Elements:										
		Code:		A								
	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				2034	1500	673	2154	1746				8107
Gross Cost	0.0	0.0	0.0	20.3	14.7	6.5	18.4	17.8	0.0	0.0	0.0	77.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)		0.0	0.0	20.3	14.7	6.5	18.4	17.8	0.0	0.0	0.0	77.7
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	20.3	14.7	6.5	18.4	17.8	0.0	0.0	0.0	77.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The M240B Machine Gun is a ground version of the M240 Machine Gun, the 7.62mm Medium Machine Gun class weapon designed as a coaxial/pintle-mounted weapon for tanks and light armored vehicles. The M240B is an air cooled, link-belt fed, gas operated weapon. The weapon features fixed head space, which permits rapid changing of the barrels. The principle difference between the M240 and the M240B is the addition of a flash suppressor, front sight, carrying handle for the barrel, buttstock, pistol grip, bipod, heat shield and rear sight assembly. The M240B Machine Gun may also be tripod-mounted and used in conjunction with a traversing and elevating mechanism and a flex mount pintle.

JUSTIFICATION: The M240B Medium Machine Gun is an infantry version of the M240 Armored Machine Gun intended to replace the M60 Series Machine Gun in light infantry, mechanized infantry, and combat engineer units. The US Army has identified a need to upgrade its current inventory of 7.62mm Medium Machine Guns in order to provide the dismounted infantryman a more reliable, accurate, and lethal medium machine gun to suppress and destroy enemy personnel, lightly armored vehicles, and fortified positions.

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat				P-1 Line Item Nomenclature: ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000)				Weapon System Type:		Date: February 1998			
WTCV Cost Elements	ID	CD	FY 96		FY 97		FY 98		FY 99		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty						
1. Hardware (Incls Flex Mount & Blank Firing Device)	A					17102	2034	8	13594	1500	9	5623	673	8		
2. Engineering Support - In House Support						1553			450			262				
3. Quality Assurance (ARDEC)						117			63			41				
4. Integrated Logistics Support						79			79			61				
5. Engineering Studies						589										
6. Engineering Change Proposals						428			342			140				
7. Testing (TECOM)						423						90				
8. Fielding									164			279				
TOTAL						20291			14692			6496				

Exhibit P-5a, Budget Procurement History and Planning										Date: February 1988
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles		Weapon System Type:		P-1 Line Item Nomenclature: ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000)						
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
Hardware (Incls Flex Mount & Blank Firing Device)										
FY 97	FN Manufacturing, Inc., Columbia, SC	SS/FFP M-3(1)	ACALA	Sep-97	Mar-98	2034	8	Yes	No	
FY 98	FN Manufacturing, Inc., Columbia, SC	SS/FFP M-3(2)	ACALA	Apr-98	Oct-99	673	9	Yes	No	
	FN Manufacturing, Inc., Columbia, SC	SS/FFP M-3(3)	ACALA	Apr-98	Feb-00	827	8	Yes	No	
FY 99	FN Manufacturing, Inc., Columbia, SC	SS/FFP M-3(3)	ACALA	Jan-99	Jul-00	673	8	Yes	No	
REMARKS: The M240 contract was established as a 3-year multiyear contract (FY97,99,00). FY98 Congressional funding will be used to exercise the 2nd and part of the 3rd years of the multiyear contract.										

Exhibit P-40, Budget Item Justification Sheet										Date:	February 1998	
Appropriation / Budget Activity/Serial No:			P-1 Item Nomenclature:									
PROCUREMENT OF WPNS & TRKD CMBT VEHIS / 2 / Weapons and Other Combat Vehicles			MACHINE GUN, 5.56MM (SAW) (G12900)									
Program Elements for Code B Items:			Other Related Program Elements:									
Code:			A									
	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	48002	8705	9430	3802	406	1525						71870
Gross Cost	117.2	21.1	27.5	12.1	5.5	4.5	0.0	0.0	0.0	0.0	0.0	187.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	117.2	21.1	27.5	12.1	5.5	4.5	0.0	0.0	0.0	0.0	0.0	187.9
Initial Spares												
Total Proc Cost	117.2	21.1	27.5	12.1	5.5	4.5	0.0	0.0	0.0	0.0	0.0	187.9
Flyaway U/C												
Wpn Sys Proc U/C												
DESCRIPTION: The Squad Automatic Weapon (SAW) is a lightweight (22 pounds with 200 rounds of ammunition), 5.56mm, one-man operated weapon capable of delivering a sustained volume of automatic, accurate, and lethal fire at ranges of up to 800 meters. The Army configuration was changed Oct 89 to include a spare barrel, additional heat shield and barrel bag. JUSTIFICATION: The sustained fire capability and increased range are urgently needed throughout infantry rifle squads in order to enhance their survivability. This lightweight, highly mobile machine gun will be used by infantry, light infantry, airborne infantry, mechanized infantry and elements of the air cavalry units, as well as non-infantry units. This procurement profile will equip selected elements of the above mentioned units on a priority basis.												

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat			P-1 Line Item Nomenclature: MACHINE GUN, 5.56MM (SAW) (G12900)			Weapon System Type:			Date: February 1998		
WTCV Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. Hardware		A	24817	9430	3	10006	3802	3	1068	406	3	4185	1525	3
2. GFM			626			186			8					
3. Engineering Support - In House Support			134			145			341			78		
4. Quality Assurance (ARDEC)						65			89			21		
5. Testing (TECOM)			115			101			100			60		
6. Engineering Change Proposal (ECP's)						162			2200			10		
7. ILS			65			65			60			40		
8. Fielding			1661			1086			1539			100		
9. TDP Maintenance			58			50			50					
10. Storage						35								
11. Refurbishment			9			149								
12. Engr Study														
TOTAL			27485			12050			5455			4494		

Exhibit P-5a, Budget Procurement History and Planning										Date: February 1988
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKO CMBT VEHS / 2 / Weapons and Other Combat Vehicles		Weapon System Type:			P-1 Line Item Nomenclature: MACHINE GUN, 5.56MM (SAW) (G12800)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
1. Hardware FY 96	FN Mfg. Co., Inc., Columbia SC	SS/FFP M-3(1)	ACALA	Aug-96	Jan-97	9430	3	Yes	No	
FY 97	FN Mfg. Co., Inc., Columbia SC	SS/FFP M-3(2)	ACALA	Dec-96	Sep-98	3802	3	Yes	No	
FY 98	FN Mfg. Co., Inc., Columbia SC	SS/FFP M-3(3)	ACALA	Dec-98	Jun-99	406	3	Yes	No	
FY 99	FN Mfg. Co., Inc., Columbia SC	SS/FFP	ACALA	Jan-99	Jul-99	1525	3	Yes	No	
REMARKS:										

FY 98 / 99 BUDGET PRODUCTION SCHEDULE										P-1 Item Nomenclature: MACHINE GUN, 5.56MM (SAW) (G12900)										Date: February 1998																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
COST ELEMENTS										M F R		FY		S E R V		PROC QTY Each		ACCEP. PRIOR TO 1 OCT		BAL DUE AS OF 1 OCT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Exhibit P-40, Budget Item Justification Sheet											
Appropriation / Budget Activity/Serial No:						Date:		February 1998			
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles						P-1 Item Nomenclature:					
Program Elements for Code B Items:						GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400)					
Code:						Other Related Program Elements:					
A											
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	9666	2100	1637	2150	400	697	1026	727	1255		20307
Gross Cost	147.6	34.0	32.8	33.0	7.8	12.2	18.5	15.5	25.4	0.0	340.6
Less PY Adv Proc											
Plus CY Adv Proc											
Net Proc (P-1)	147.6	34.0	32.8	33.0	7.8	12.2	18.5	15.5	25.4	0.0	340.6
Initial Spares											
Total Proc Cost	147.6	34.0	32.8	33.0	7.8	12.2	18.5	15.5	25.4	0.0	340.6
Flyaway U/C											
Wpn Sys Proc U/C											

DESCRIPTION: The MK19, Mod 3 is a self-powered, air-cooled, blowback, 40mm automatic grenade launcher capable of a cyclic rate of 325-375 rounds per minute. It will engage point targets up to 1,500 meters and provide suppressive fire up to 2,200 meters. Component items for this system include the 40mm assembly group 1 and the MK64 mount.

JUSTIFICATION: The weapon will be mounted on the High Mobility Multi-Purpose Wheeled Vehicle (HMMWV), the Armored Personnel Carrier family of vehicles and the M88A1 Recovery Vehicle. During static defensive operations, it will be ground employed utilizing the M3 Tripod Mount. It will replace select M2 cal .50 and M60 7.62mm machine guns in mechanized, light infantry, engineer, military police, and other combat support and combat service support units. Procurement will help reduce critical supply position for high-priority equipment readiness code (ERC) A shortages in Europe, Korea, and CONUS requirements. The MK175 Pedestal Mount is being incorporated on the MK64 Mount to improve the accuracy and dispersion of the MK19-3 when used on the HMMWV application.

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat				P-1 Line Item Nomenclature: GRENADE LAUNCHER, AUTO, 40MM, MK19- 3 (G13400)				Weapon System Type:		Date: February 1998	
WTCV			FY 96		FY 97		FY 98		FY 99					
Cost Elements			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. Hardware		A	20237 2039	1500 137	13 15	4433 20876 4065 2107	320 1423 268 139	14 15 15 15	6091	400	15	10609	697	15
2. Round Removal Tool (GFM)			187			209			43			85		
3. Engineering Support - In House			793			660			1032			989		
4. Quality Assurance (ARDEC)			45			30			64			65		
5. Integrated Logistic Support			314			15			127			125		
6. Engineering Change Proposal			103			332			38			125		
7. Testing (TECOM)									266					
8. Fielding			406			245			174			183		
9. M175 Material Change (Application Costs)												10		
10. MK19 Claim			8688											
TOTAL			32812			32972			7835			12191		

Exhibit P-5a, Budget Procurement History and Planning										Date: February 1998	
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles			Weapon System Type:		P-1 Line Item Nomenclature: GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400)						
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date	
Hardware											
FY 96	SACO Defense, Saco, Maine	SS/FFP M-2(1) Option	ACALA	Jul-96	May-97	1500	13	Yes	No		
	SACO Defense, Saco, Maine		ACALA	Apr-97	Jul-98	137	15	Yes	No		
FY 97	SACO Defense, Saco, Maine	SS/FFP M-2(2) Option	ACALA	Nov-96	May-98	320	14	Yes	No		
	SACO Defense, Saco, Maine		ACALA	Apr-97	Sep-98	1423	15	Yes	No		
	SACO Defense, Saco, Maine	SS/FFP M-3(1) Option	ACALA	Sep-97	Oct-99	268	15	Yes	No		
	SACO Defense, Saco, Maine		ACALA	Jun-98	Jan-00	139	15	Yes	No		
FY 98	SACO Defense, Saco, Maine	Option	ACALA	Jun-98	Feb-00	400	15	Yes	No		
FY 99	SACO Defense, Saco, Maine	SS/FFP M-3(2)	ACALA	Dec-98	Jun-00	697	15	Yes	No		
REMARKS:											

FY 98 / 99 BUDGET PRODUCTION SCHEDULE										P-1 Item Nomenclature: GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400)										Date: February 1998										
M F R		FY	S E R V	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01											
							Calendar Year 00						Calendar Year 01						Calendar Year 00						Calendar Year 01					
							J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S			
							O	C	N	V	C	D	E	A	A	N	O	C	O	E	A	A	P	A	P	A	A			
							T	O	V	C																				
Hardware		1	95 & Pr	A	11766	11766																								
		1	95 & Pr	AR	125	125																								
		1	95 & Pr	MC	3963	3963																								
		1	95 & Pr	N	785	785																								
		1	95 & Pr	AF	918	918																								
		1	95 & Pr	FMS	577	577																								
		1	95 & Pr	OTH	414	414																								
		1	FY 96	A	1500	1500																								
		1	FY 96	A	137	137																								
		1	FY 96	AR	125	125																								
		1	FY 96	FMS	9	9																								
		1	FY 97	A	320	320																								
		1	FY 97	A	1423	1372	51																							
		1	FY 97	A	268	0	268	45	100	23																				
		1	FY 97	A	139	0	139	77	62																					
		1	FY 97	FMS	4	0	4																							
		1	FY 98	A	400	0	400																							
		1	FY 99	A	697	0	697																							
Total					23570	22011	1559	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100				
						0																								

Exhibit P-40, Budget Item Justification Sheet										Date: February 1998		
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CHBT VEHIS / 2 / Weapons and Other Combat Vehicles												
P-1 Item Nomenclature: M16 RIFLE (G14900)												
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	490368	20473	31826	15583	11297	16067	22848	7472				615934
Gross Cost	224.5	9.8	13.1	6.5	5.0	6.8	9.8	4.9	0.0	0.0	0.0	280.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	224.5	9.8	13.1	6.5	5.0	6.8	9.8	4.9	0.0	0.0	0.0	280.4
Initial Spares												
Total Proc Cost	224.5	9.8	13.1	6.5	5.0	6.8	9.8	4.9	0.0	0.0	0.0	280.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The M16A2 Rifle, 5.56mm, is a gas operated, air cooled, magazine fed, selective rate shoulder fired weapon. It is fed by a 30 round aluminum magazine and is designed for use as the primary infantry weapon. The M16A2 is an improved version of the M16A1 Rifle. Improvements include: strengthened plastic handguard, rifle stock and pistol grip to increase durability of the weapon, interchangeable handguard halves, muzzle brake compensator which reduces the raise or jump of the muzzle when fired, a burst control device limiting the automatic fire to a maximum of three rounds per trigger pull, and adjustable rear sight and square front sight post for a more distinct sight picture, a brass deflector to prevent hot brass cartridge casings from hitting left-handed shooters, and a stronger barrel reinforced with additional metal and a change in the twist ratio of the bore to accommodate NATO standard 5.56mm ammunition. The maximum effective range of the M16A2 has increased from 460 to 550 meters.

JUSTIFICATION: The M16A2 Rifle Program for FY99 provides additional rifles for fielding against the Force Modernization requirement for pure fleeing the field with the M16A2 Rifle. Without additional M16A2 Rifles, a logistic problem associated with different ammunition requirements for the M16A1 vs M16A2 is perpetuated. Funding also supports the M16 Rifle Industrial Base.

Exhibit P-5, Weapon WTCV Cost Analysis				Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKO CMBT VEHS / 2 / Weapons and Other Combat				P-1 Line Item Nomenclature: M16 RIFLE (G14900)				Weapon System Type:				Date: February 1998			
WTCV Cost Elements				FY 96				FY 97				FY 98				FY 99			
ID	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	Each	Each	Each
		\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$			
1. Rifle (Includes Slings and Magazines)	A	12667	31813	398				4109	10320	398	4499	11297	398	6397	16067				398
Refurbished Rifles								616	1548	398									
2. Engineering Support - In House Support		3	13	231				1480	3715	398									
3. Engineering Change Proposals		8						60			266			256					
4. Quality Assurance (ARDEC)		47						45			63			92					
5. Integrated Logistics Support		65						65			74			54					
6. Testing (TECOM)		131						130											
7. Fielding		133						18			19			30					
TOTAL		13054						6523			4984			6829					

Exhibit P-5a, Budget Procurement History and Planning										Date:	February 1998
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles		Weapon System Type:		P-1 Line Item Nomenclature: M16 RIFLE (G14900)							
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 Revisn Avail	RFP Issue Date	
1. Rifle (Includes Slings and Magazines) FY 96	FN Mfg. Co., Inc. Columbia, SC	SS/FFP M-5(1)	ACALA	Aug-96	Jan-97	31813	398	Yes	No		
	FN Mfg. Co., Inc. Columbia, SC	SS/FFP M-5(1)	ACALA	Aug-96	Jan-97	13	231	Yes	No		
FY 97	FN Mfg. Co., Inc. Columbia, SC	SS/FFP M-5(2)	ACALA	Dec-96	Jan-99	10320	398	Yes	No		
	FN Mfg. Co., Inc. Columbia, SC	Option	ACALA	Dec-96	Aug-99	1548	398	Yes	No		
	FN Mfg. Co., Inc. Columbia, SC	Option	ACALA	Aug-97	Sep-99	3715	398	Yes	No		
FY 98	FN Mfg. Co., Inc. Columbia, SC	SS/FFP M-5(3)	ACALA	Jan-98	Dec-99	11297	398	Yes	No		
FY 99	FN Mfg. Co., Inc. Columbia, SC	SS/FFP M-5(4)	ACALA	Jan-99	Jul-00	16067	398	Yes	No		
REMARKS:											

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:						Date:		February 1999				
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles						P-1 Item Nomenclature:		5.56 CARBINE M4 (G14904)				
Program Elements for Code B Items:						Other Related Program Elements:						
Code: A												
	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	41582	15892	9785	10803	7484	6310	8687	8309				108652
Gross Cost	20.9	10.8	6.3	6.5	5.0	4.2	5.4	5.3	0.0	0.0	0.0	64.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	20.9	10.8	6.3	6.5	5.0	4.2	5.4	5.3	0.0	0.0	0.0	64.4
Initial Spares												
Total Proc Cost	20.9	10.8	6.3	6.5	5.0	4.2	5.4	5.3	0.0	0.0	0.0	64.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The M4 Carbine is a 5.56mm gas-operated, air-cooled, magazine-fed, selective-rate, shoulder-fired weapon. It is fed by a 30-round magazine and will replace all M3A1 WWII era .45 cal Submachine guns, and selective M16 series rifles and M9 pistols. It provides the individual soldier operating in close quarters the capability to engage targets at extended ranges with accurate lethal fire. Although more compact and featuring a collapsible stock, it achieves over 85% commonality with the M16A2 rifle. The effective range is 500 meters.

JUSTIFICATION: The M4 Carbine will provide soldiers with a compact, light-weight weapon that can provide better self protection and additional firepower in close quarters. The FY99 program will allow for the uninterrupted fielding of the M4 Carbine to Army units. Procurement is necessary to achieve the Army Acquisition Objective (AAO) for the M4 Carbine.

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat				P-1 Line Item Nomenclature: 5.56 CARBINE M4 (G14904)				Weapon System Type:		Date: February 1998	
WTCV Cost Elements			FY 96		FY 97		FY 98		FY 99					
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. Hardware M4 Carbine w/Sling Magazine & Blank Firing Attachment	A		5161	9785	1	5524	10603	1	3899	7484	1	3288	6310	1
2. Engineering Support - In House Support			400			362			425			443		
3. Engineering Change Proposals (ECP's)			59			48			105			85		
4. Quality Assurance (ARDEC)			75			75			75			75		
5. ILS			65						65			65		
6. Engineering Studies			220											
7. Comparison Test (TECOM)						175			151					
8. Fielding			312			339			264			274		
TOTAL			6292			6523			4984			4230		

Exhibit P-5a, Budget Procurement History and Planning										Date: February 1998	
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles		Weapon System Type:			P-1 Line Item Nomenclature: 5.56 CARBINE M4 (G14904)					RFP Issue Date	
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail		
1. Hardware FY 96	Colt's Mfg Co., Inc. Hartford, CT	SS/FFP M-4(1)	ACALA	Oct-97	Jun-98	6000	1	Yes	No		
	Colt's Mfg Co., Inc. Hartford, CT	SS/FFP	ACALA	Mar-98	Oct-98	3785	1	Yes	No		
FY 97	Colt's Mfg Co., Inc. Hartford, CT	SS/FFP	ACALA	Mar-98	Apr-99	10603	1	Yes	No		
FY 98	Colt's Mfg Co., Inc. Hartford, CT	SS/FFP M-4(2)	ACALA	Jan-98	Jun-99	6000	1	Yes	No		
	Colt's Mfg Co., Inc. Hartford, CT	SS/FFP	ACALA	Mar-98	Oct-00	1484	1	Yes	No		
FY 99	Colt's Mfg Co., Inc. Hartford, CT	SS/FFP M-4(3)	ACALA	Jan-99	Jun-00	6000	1	Yes	No		
	Colt's Mfg Co., Inc. Hartford, CT	Option/ FY98 SS/FFP	ACALA	Jan-99	Dec-00	310	1	Yes	No		
REMARKS:											

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:				Date:		February 1998						
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles				P-1 Item Nomenclature:		M4 CARBINE MODS (GB3007)						
Program Elements for Code B Items:				Other Related Program Elements:								
Code:				A								
	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	0.9	4.5	4.9	5.1	5.4	0.0	0.0	0.0	0.0	20.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.9	4.5	4.9	5.1	5.4	0.0	0.0	0.0	0.0	20.8
Initial Spares												
Total Proc Cost	0.0	0.0	0.9	4.5	4.9	5.1	5.4	0.0	0.0	0.0	0.0	20.8
Flyaway U/C												
Wpn Sys Proc U/C												
DESCRIPTION: The M4 Carbine Modification Program provides a close combat optic, a modular weapon suite, an improved buttstock, a top carry sling and a permanently affixed back-up iron sight for the M4 Carbine. Also it provides the capability for firing the M203A1 Grenade Launcher (GL) with the M4 Carbine. JUSTIFICATION: The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in close proximity and improves hit probability in daylight, low light level, wet weather and other adverse conditions. The modular weapon system is a key component of Land Warrior Lethality and allows the combat commander to custom configure weapons based upon the mission. The top sling maintains the Carbine in an upright position freeing the user's hands for other tasks. The permanent back-up, rear optative, iron sight provides that capability in the event it becomes immediately necessary. The M203A1 Grenade Launcher insures compatibility with the M4 Carbine. The improved buttstock provides the rifleman an ergonomically optimized buttstock for the M4 Carbine.												

[illegible]

INDIVIDUAL MODIFICATION														
														Date
														February 1998
MODIFICATION TITLE: Close Combat Optics (M4 Carbine) TBD1														
MODELS OF SYSTEMS AFFECTED: M4 Carbine, M68 Sight Reflex														
DESCRIPTION / JUSTIFICATION: The M68 Sight will be installed on the M4 Carbine. The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in close proximity. The close combat optic gives the soldier greater hit probability in daylight, low light level, wet weather and other adverse conditions.														
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: PLANNED ACCOMPLISHED														
Development/Operational Test 1/2Q96 Type Classification (LRIP) 4Q96 Production Contract Award 4Q96 First Production Hardware Delivered 1Q97 First Unit Equipped 2Q98														
Installation Schedule:														
Inputs Outputs	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	
Inputs Outputs	FY 2002		FY 2003		FY 2004		FY 2005		To					
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs Outputs	FY 2002		FY 2003		FY 2004		FY 2005		To					
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
METHOD OF IMPLEMENTATION: Unit Application ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months														
Contract Dates: FY 1997 Jul 97 FY 1998 Jan 98 FY 1999 Jan 99														
Delivery Date: FY 1997 Jul 98 FY 1998 Mar 99 FY 1999 Jun 99														

INDIVIDUAL MODIFICATION													
Close Combat Optics (M4 Carbine) TBD1													
MODIFICATION TITLE (Cont):													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E		1.469											1.469
PROCUREMENT													
Kit Quantity	3888		14932		4480		12005		20785				56090
Installation Kits													
Installation Kits, Nonrecurring													
Equipment		0.746		2.863		0.859	2.401	5.196					12.065
Equipment, Nonrecurring		0.084		0.140		0.139	0.138	0.115					0.616
Engineering Support		0.050		0.050		0.050	0.050	0.050					0.250
Testing		0.010		0.020		0.020	0.020	0.020					0.090
Integrated Logistical Support		0.010		0.020		0.020	0.020	0.020					0.090
Fielding		0.010		0.020		0.020	0.020	0.020					0.090
Other													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- Kits					3888								3888
FY 1998 Eqpt -- Kits					511		14421						14932
FY 1999 Eqpt -- Kits							4480						4480
FY 2000 Eqpt -- kits							1500		10505				12005
FY 2001 Eqpt -- kits									20785				20785
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip-Kits													
Total Installation					4399		20401		31290				56090
Total Procurement Cost		0.9		3.1		1.1	2.6	5.4					13.1

INDIVIDUAL MODIFICATION															Date	February 1998
MODIFICATION TITLE: M203 for M4 Carbine TBD2																
MODELS OF SYSTEMS AFFECTED: M4 Carbine, M4A1																
DESCRIPTION / JUSTIFICATION: The Army units assigned the M4 Carbine will obtain the capability to fire the M203 Grenade Launcher (GL) with the M4 Carbine.																
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: PLANNED ACCOMPLISHED																
Developmental/Operational Tests Type Classification/Milestone III Production Contract Award First Production Hardware Delivered First Unit Equipped 2Q98 3Q98 1Q97 4Q97 4Q97																
Installation Schedule:																
Inputs Outputs		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001						
		1	2	3	4	1	2	3	4	1	2	3	4			
Totals																
Inputs Outputs		FY 2002		FY 2003		FY 2004		FY 2005		To						
		1	2	3	4	1	2	3	4	1	2	3	4			
Totals																
METHOD OF IMPLEMENTATION: Unit Application ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 7 Months																
Contract Dates: FY 1997 Sep 97 FY 1998 FY 1999																
Delivery Date: FY 1997 Mar 98 FY 1998 FY 1999																

INDIVIDUAL MODIFICATION																				
M203 for M4 Carbine TBD2																				
MODIFICATION TITLE (Cont):																				
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		0.631																		0.631
PROCUREMENT																				
Kit Quantity			2576																2576	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment				0.222																0.222
Equipment, Nonrecurring																				
Engineering Support				0.070																0.070
Testing																				
Integrated Logistical Support				0.040																0.040
Fielding				0.030																0.030
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				0.4															2576	0.4
Total Procurement Cost																				

INDIVIDUAL MODIFICATION															Date	February 1998	
MODIFICATION TITLE: Modular Weapon System (M4 Carbine) TBD3																	
MODELS OF SYSTEMS AFFECTED:																	
DESCRIPTION / JUSTIFICATION: The modular weapon is a system of mounting rails/methods to allow the custom configuration of M4 Carbines with ancillary items such as optics, night sights, IR laser pointers, the grenade launcher, back-up sights, etc., based upon mission requirements.																	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																	
										PLANNED			ACCOMPLISHED				
													3Q95-2Q96 4Q97 4Q97				
													3Q98 4Q98				
First Production Hardware Delivered First Unit Equipped																	
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
Inputs																	
Outputs																	
Totals																	
Inputs																	
Outputs																	
Totals																	
METHOD OF IMPLEMENTATION: Unit Application ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 13 Months																	
Contract Dates: FY 1997 Aug 97 FY 1998 May 98 FY 1999 Nov 99																	
Delivery Date: FY 1997 Apr 98 FY 1998 Oct 99 FY 1999 Dec 00																	

INDIVIDUAL MODIFICATION																				
Modular Weapon System (M4 Carbine) TBD3																				
MODIFICATION TITLE (Cont):																				
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		1.158																		1.158
PROCUREMENT																				
Kit Quantity			3332		10829		2500												16661	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment				0.880		2.761		0.896												4.537
Equipment, Nonrecurring				0.058		0.200		0.125												0.383
Engineering Support				0.020																0.020
Testing				0.015		0.025		0.030												0.070
Integrated Logistical Support				0.025		0.162		0.038												0.225
Fielding																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits					2000		1332												3332	
FY 1999 Eqpt -- Kits							8168												10829	
FY 2000 Eqpt -- kits																			2500	
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installation					2000		9500												16661	
Total Procurement Cost				1.0		3.1		1.1												5.2

INDIVIDUAL MODIFICATION																																																																																															
										Date	February 1998																																																																																				
MODIFICATION TITLE: M4 Improved Buttstock TBD4 MODELS OF SYSTEMS AFFECTED: M4 Carbine, M4A1																																																																																															
DESCRIPTION / JUSTIFICATION: The M4 Improved Buttstock provides the rifleman with features for obtaining the proper shooting form; stock/shoulder weld and stock/cheek weld. This program provides the rifleman with an ergonomically optimized buttstock for the M4 Carbine.																																																																																															
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <table style="width: 100%; border: none;"> <tr> <td style="width: 40%; text-align: center;">PLANNED</td> <td style="width: 40%; text-align: center;">ACCOMPLISHED</td> <td style="width: 20%;"></td> </tr> <tr> <td>Finalize Design</td> <td></td> <td></td> </tr> <tr> <td>Contract Award (Limited Rate)</td> <td>2Q98</td> <td></td> </tr> <tr> <td>First Production Hardware Delivered</td> <td>3Q98</td> <td></td> </tr> <tr> <td>First Unit Equipped/ECP</td> <td>1Q99</td> <td></td> </tr> </table>												PLANNED	ACCOMPLISHED		Finalize Design			Contract Award (Limited Rate)	2Q98		First Production Hardware Delivered	3Q98		First Unit Equipped/ECP	1Q99																																																																						
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First Production Hardware Delivered	3Q98																																																																																														
First Unit Equipped/ECP	1Q99																																																																																														
Installation Schedule: <table style="width: 100%; border: none;"> <tr> <th style="text-align: left;">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </table>												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																				
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<table style="width: 100%; border: none;"> <tr> <th style="text-align: left;">Totals</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">To Complete</th> </tr> <tr> <td>1</td> <td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </table>												Totals	FY 2002				FY 2003				FY 2004				FY 2005				To Complete				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																					
Totals	FY 2002				FY 2003				FY 2004				FY 2005				To Complete																																																																														
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Inputs																																																																																															
Outputs																																																																																															
METHOD OF IMPLEMENTATION: Unit Application Contract Dates: FY 1997 Delivery Date: FY 1997																																																																																															
ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months FY 1998 Feb 98 FY 1999 Mar 99																																																																																															

INDIVIDUAL MODIFICATION														February 1998						
M4 Improved Buttstock TBD4																				
MODIFICATION TITLE (Cont):																				
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		0.377																		0.377
PROCUREMENT																				
Kit Quantity					10300		50571												60871	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring					0.555		1.381													1.936
Engineering Support					0.065		0.045													0.110
Testing					0.010															0.010
Integrated Logistical Support					0.020		0.005													0.025
Fielding																				
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							45300		15571										60871	
Total Procurement Cost					0.7		1.4													2.1

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles												M119 MODIFICATIONS (GC0401)	
Program Elements for Code B Items:												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	0.0	0.0	4.9	4.8	2.9	3.2	0.0	0.0	0.0	15.8	
Less FY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	0.0	0.0	0.0	0.0	4.9	4.8	2.9	3.2	0.0	0.0	0.0	15.8	
Initial Spares													
Total Proc Cost	0.0	0.0	0.0	0.0	4.9	4.8	2.9	3.2	0.0	0.0	0.0	15.8	
Flyaway U/C													
Wpn Sys Proc U/C													
DESCRIPTION: Light Artillery System Improvement Plan (LASIP) for the 105mm, M119A1 Light, Towed Howitzer JUSTIFICATION: The 105mm M119A1 Light, Towed Howitzer was selected as the weapon of choice for the light forces because it was a nondevelopmental item (NDI) with growth potential. Now that 418 M119A1 howitzers have been fielded, it is time to realize that growth potential. The Light Artillery System Improvement Plan (LASIP) initiates this process by correcting known deficiencies, improving reliability, availability and maintainability (RAM), and providing solutions to requests for minor operational enhancements. The LASIP was developed by the M119A1 Howitzer Improvement Team (HIT), chartered specifically to respond to improvements requested by field artillery units, the U.S. Army Field Artillery School (USAFAS) and the U.S. Army Training and Doctrine Command (TRADOC).													

INDIVIDUAL MODIFICATION										Date	February 1998				
MODIFICATION TITLE: Block 2 Upgrade TBD2															
MODELS OF SYSTEMS AFFECTED:															
DESCRIPTION / JUSTIFICATION:															
The rammer/extractor tool currently issued was "borrowed" from the M102 Howitzer which requires the base of the primed cartridge be forcefully struck by a hard rubber plunger. Upgrade elevating handwheel; it is the limiting factor in the system departure angle during cross country movement and is highly susceptible to damage during tactical operations. These items are included in the "To Complete"(TC): Improve the Direct Fire Scope; Improving the direct fire scope will provide night capability, improved accuracy and internal boresighting. Modify the Firing Platform clamps; The firing platform must be disengaged from its stowage brackets, lifted manually from the trail, carried completely clear of the trail and placed on the ground before the howitzer can be rolled into its firing position. Modify the Elevation Clutches; This will reduce corrosion damage and lower maintenance costs. Replace competitive tubes in the buffer assembly with a more reliable system. This eliminates the collapse of the current tube design.															
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:															
Planned				Accomplished				Planned				Accomplished			
Validate Materiel change (MC)				1Q01				Deliver First Mod Kit				3Q02			
Critical Design Review				2Q01				First Unit Equipped (FUE)				4Q02			
Complete Testing of Prototype				4Q01				Deliver Last Mod Kit				2Q03			
Release Technical Data Package (TDP)				1Q02				Last Unit Equipped				3Q03			
Award Contract for Modification Kits															
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		
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Inputs															
Outputs															
Totals		1	2	3	4	1									

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998	
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:		
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles												M16 RIFLE MODS (G22800)		
Program Elements for Code B Items:												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	29.7	1.2	2.8	4.9	4.7	6.2	0.0	0.0	0.0	0.0	0.0	49.5		
Less PY Adv Proc														
Plus CY Adv Proc														
Net Proc (P-1)	29.7	1.2	2.8	4.9	4.7	6.2	0.0	0.0	0.0	0.0	0.0	49.5		
Initial Spares														
Total Proc Cost	29.7	1.2	2.8	4.9	4.7	6.2	0.0	0.0	0.0	0.0	0.0	49.5		
Flyaway U/C														
Wpn Sys Proc U/C														

DESCRIPTION: The M16 family of rifles is a gas operated, magazine fed, selective fire and shoulder weapon. They are fed by 30 round aluminum magazines. The M16 Rifle Modifications Program provides a close combat optic, a modular weapon system suite, a top carry sling and a permanently affixed, rear aperture, back-up iron sight. The modular weapon allows the custom configuration of the M16 rifles with accessories and smaller items. i.e. optics, night sights, laser pointers, based on mission requirements.

JUSTIFICATION: The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in close proximity and improves hit probability in daylight, low light level, wet weather and other adverse conditions. The modular weapon system is a key component of Land Warrior Lethality and allows the combat commander to custom configure weapons with accessories (i.e. day/night sights, laser pointers, ancillary weapons, etc.) based upon the mission. The top carry sling maintains the rifle in an upright position freeing the user's hands for other tasks. The permanent back-up, rear aperture, iron sight provides that capability in the event it becomes immediately necessary.

Exhibit P-40M Budget Item Justification Sheet

Date

February 1998

Appropriation / Budget Activity/Serial No.

P-1 Item Nomenclature

PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles

M16 RIFLE MODS (GZ2800)

Program Elements for Code B Items

Code

Other Related Program Elements

Fiscal Years

Description

OSIP NO.	Classification
----------	----------------

Modular Weapon System (M16/M203)

TBD1 Operational

Close Combat Optics (M16)

TBD2 **Operational**

Totals

[illegible]

Model	Operational	2.9	1.5	4.5	0.0	0.0	8.9
T8D1	Operational	0.0	2.9	1.5	4.5	0.0	0.0

Close Combat Onlincs (M16)

	2.8	4.9	4.7	6.2	0.0	0.0	0.0	18.6
Totals								

INDIVIDUAL MODIFICATION														
										Date		February 1998		
MODIFICATION TITLE: Modular Weapon System (M16/M203) TBD1														
MODELS OF SYSTEMS AFFECTED: Rifle, 5.56mm M16A2														
DESCRIPTION / JUSTIFICATION: The modular weapon is a system of mounting rails/methods that allows the custom configuration of M16 Rifles with accessories and ancillary items such as optics, night sights, IR laser pointer, the grenade launcher, back-up sights, etc., based upon mission requirements in the field, without tools.														
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Developmental/Operational Tests Milestone III Production Decision Production Contract Award First Production Hardware Delivered First Unit Equipped PLANNED 3Q98 4Q98 ACCOMPLISHED 3Q95-2Q96 4Q97 4Q97														
Installation Schedule:														
Inputs Outputs		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001				
		1	2	3	4	1	2	3	4	1	2	3	4	
Totals														
Inputs Outputs		FY 2002		FY 2003		FY 2004		FY 2005		To				
		1	2	3	4	1	2	3	4	1	2	3	4	
Totals														
METHOD OF IMPLEMENTATION: Unit Application ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months														
Contract Dates: FY 1997 Aug 97 FY 1998 May 98 FY 1999 Nov 98														
Delivery Date: FY 1997 Apr 98 FY 1998 Oct 98 FY 1999 Oct 99														

INDIVIDUAL MODIFICATION													
MODIFICATION TITLE (Cont): Modular Weapon System (M16/M203) TBD1													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E		1.158											1.158
PROCUREMENT													
Kit Quantity	3143				1612		4380						9135
Installation Kits													
Installation Kits, Nonrecurring							4.038						
Equipment		2.404			1.487								7.929
Equipment, Nonrecurring		0.207			0.025		0.215						0.447
Engineering Support		0.100											0.100
Testing		0.050			0.005		0.075						0.130
Integrated Logistical Support		0.100			0.032		0.180						0.312
Fielding													
Other													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- Kits					3000		143						3143
FY 1998 Eqpt -- Kits							1357		255				1612
FY 1999 Eqpt -- Kits									4380				4380
FY 2000 Eqpt -- kits													
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip-Kits													
Total Installation					3000		1500		4635				9135
Total Procurement Cost				2.9		1.5		4.5					8.9

INDIVIDUAL MODIFICATION												Date	February 1998																																																																																				
MODIFICATION TITLE: Close Combat Optics (M16) TBD2																																																																																																	
MODELS OF SYSTEMS AFFECTED: M16A2 Rifle, M68 Sight Reflex																																																																																																	
DESCRIPTION / JUSTIFICATION:																																																																																																	
The M68 Sight will be installed on the M16A2 Rifle																																																																																																	
The Close Combat Optic allows the soldier to fire his weapon with both eyes open allowing greater awareness of events happening in close proximity to the soldier and improves hit probability in daylight, low light level, wet weather and other adverse conditions.																																																																																																	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Development/Operational Test Type Classification (LRIP) Production Contract Award First Production Hardware Delivered First Unit Equipped PLANNED 1/2Q96 4Q96 4Q96 1Q97 2Q98 ACCOMPLISHED																																																																																																	
Installation Schedule:																																																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>														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																				
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FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																	
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Inputs																																																																																																	
Outputs																																																																																																	
METHOD OF IMPLEMENTATION: Unit Application																																																																																																	
Contract Dates:																																																																																																	
Delivery Date:																																																																																																	
FY 1997 Jul 97 FY 1997 Jul 98 FY 1998 Jan 98 FY 1998 Mar 99 1 Months PRODUCTION LEADTIME: 6 Months FY 1999 Jan 99 FY 1999 Jun 99																																																																																																	

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles												MODIFICATIONS LESS THAN \$2.0M (WOCV-WTCV (GC0925))	
Program Elements for Code B Items:												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	68.3	2.6	1.4	0.6	1.4	1.1	1.0	1.0	1.3	1.3	0.0	80.1	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	68.3	2.6	1.4	0.6	1.4	1.1	1.0	1.0	1.3	1.3	0.0	80.1	
Initial Spares													
Total Proc Cost	68.3	2.6	1.4	0.6	1.4	1.1	1.0	1.0	1.3	1.3	0.0	80.1	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: Provides for modification of Weapons and Other Combat Vehicles with a cost less than \$2.0 Million.

JUSTIFICATION: Funds identified in FY97/FY98 will modify the M198 Howitzer and provide machine gun optic sights for the M249, M60 and M240B Machine Guns. The M198 Howitzer will improve the reliability, availability and maintainability (RAM), handling, equilibrator, durability of parts, a reduction in operator fatigue and increased users' satisfaction. The M198 will have the latest enhancements available to service the currently envisioned battlefield. The optic sight will allow the soldier to identify and engage targets more effectively than the existing iron sighting system.

INDIVIDUAL MODIFICATION												Date	February 1998																																																															
MODIFICATION TITLE: M198 Howitzer System Improvement TBD1																																																																												
MODELS OF SYSTEMS AFFECTED: M198 Howitzer, Medium Towed																																																																												
DESCRIPTION / JUSTIFICATION:																																																																												
The purpose of the Materiel Change (MC) is to improve the reliability of the M198 System, improve the brake system, reduce operator fatigue, improve the retention of hardware and improve equilibrator adjustment. The areas of improvement were a result of M198 fielded system review. Improvements in ram, handling maneuverability, durability of parts, a reduction in operator fatigue and increased users satisfaction is expected.																																																																												
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																												
PLANNED										ACCOMPLISHED																																																																		
Production Contract Awarded										1Q91																																																																		
First Production Hardware Delivered										3Q91																																																																		
MFA/MWOPF Negotiated										3Q91																																																																		
First Kit Applied										3Q91																																																																		
Last Kit Applied										1Q98																																																																		
Collective Evaluation Completed										4Q98																																																																		
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																																																															
Inputs		673	17	17	18	14																																																																						
Outputs		673	4	10	17	18	17																																																																					
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2">Totals</td> <td colspan="2">FY 2002</td> <td colspan="2">FY 2003</td> <td colspan="2">FY 2004</td> <td colspan="2">FY 2005</td> <td colspan="2">To</td> </tr> <tr> <td colspan="2">1</td> <td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td colspan="2">Inputs</td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td colspan="2">Outputs</td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td colspan="2">739</td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2">739</td> </tr> </table>														Totals		FY 2002		FY 2003		FY 2004		FY 2005		To		1		2	3	4	1	2	3	4	1	2	3	4	Inputs													Outputs													739										739	
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739										739																																																																		
METHOD OF IMPLEMENTATION: Depot																																																																												
Contract Dates: FY 1997																																																																												
Delivery Date: FY 1997																																																																												
ADMINISTRATIVE LEADTIME: Months																																																																												
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FY 1999																																																																												
FY 1999																																																																												

INDIVIDUAL MODIFICATION											
										Date	February 1998
MODIFICATION TITLE: Machine Gun Optics TBD2											
MODELS OF SYSTEMS AFFECTED: M249 Squad Automatic Weapon; M60 Machine Guns, M240B Machine Guns											
DESCRIPTION / JUSTIFICATION: The Machine Gun Optic Program provides an optic (telescopic) sight for the 5.56mm M249 Light Machine Gun and 7.62mm Medium Machine Guns. The optic sight will allow the soldier to identify and engage targets more effectively than the existing iron sighting system.											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:											
PLANNED						ACCOMPLISHED					
Development/Operational Tests						3Q98					
Type Classification						4Q98					
Production Contract Award						4Q98					
First Production Hardware Delivered						1Q99					
First Unit Equipped						2Q99					
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
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Inputs											
Outputs											
Totals		1	2	3	4	1	2	3	4		

INDIVIDUAL MODIFICATION																		
Machine Gun Optics TBD2																		
MODIFICATION TITLE (Cont):																		
FINANCIAL PLAN: (\$ in Millions)																		
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																		
PROCUREMENT																		
Kit Quantity					1718				1214		1191		1626		1625		8752	
Installation Kits																		
Installation Kits, Nonrecurring																		
Equipment							0.896		0.789		0.774		1.057		1.056			5.689
Equipment, Nonrecurring																		
Engineering Support							0.143		0.143		0.144		0.144		0.144			0.958
Testing							0.050		0.050		0.050		0.050		0.050			0.300
Integrated Logistical Support							0.019		0.020		0.020		0.020		0.020			0.119
Fielding							0.020		0.020		0.020		0.020		0.020			0.120
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 Installation																		
Total Procurement Cost																		

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles												ITEMS LESS THAN \$2.0M (WOCV-WTCV) (GL3200)	
Program Elements for Code B Items:												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	58.0	5.0	1.2	0.9	1.2	1.2	1.2	1.2	1.3	1.3	0.0	72.6	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	58.0	5.0	1.2	0.9	1.2	1.2	1.2	1.2	1.3	1.3	0.0	72.6	
Initial Spares													
Total Proc Cost	58.0	5.0	1.2	0.9	1.2	1.2	1.2	1.2	1.3	1.3	0.0	72.6	
Flvaway U/C													
Wpn Sys Proc U/C													
DESCRIPTION: Provides for procurement and assembly of tool/shop sets, small arms, and gun mounts. The items are needed by maintenance personnel to maintain weapons and combat vehicles, and by Active Army, National Guard, Reserve and ROTC units to perform combat and training missions. The tool/shop equipment has multi-applications and is essential to all levels of weapon and combat vehicle maintenance. JUSTIFICATION: Required to achieve and sustain required levels of readiness to units providing maintenance support to all small arms (M16,9mm Pistol, 7.62 Machine Gun, etc.), artillery (M102,M119,M198 Howitzers, etc.), air defense (Vulcan, PIVAD, etc.) special weapons, and fire control (Tanks, etc.) organizations. Small Arms Weapons and mounts are required to support AAO shortages, field replacements and training requirements.													

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat				P-1 Line Item Nomenclature: ITEMS LESS THAN \$2.0M (WOCV-WTCV) (GL3200)				Weapon System Type:		Date: February 1998	
WTCV Cost Elements			FY 96		FY 97		FY 98		FY 99					
ID	CD		TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
1. Shot Gun, 12 Gage	A	G124	256	256	1	94	410		100	400		100	400	
2. Shop Equip, Small Arms Repair, Shelter Mtd	A	G337				158	4	40				304	8	38
3. Shop Equip, Artillery Maint, FM Set N	A	G348				76	2	38						
4. Tool Set, Instrument and Fire Control FM	A	G371	204	10	20	94	4	24	56	2	28	105	5	21
5. Shop Set, Small Arms, Field Maint, PCS Set D	A	G385	110	2	55	91	2	46	75	1	75			
6. Shop Set, Small Arms FM, Basic	A	G723				14	1	14				14	1	14
7. XM144 Telescope	A		679											
8. Tool Set, Battalion Maint	A	G427				269	67	4	471	70	7	342	86	4
9. Tool Kit, Electronic Sys Maint	A	S380				103	18	6	488	94	5	299	75	4
TOTAL			1249			899			1190			1164		

Exhibit P-40, Budget Item Justification Sheet											Date:	
Appropriation / Budget Activity/Serial No:											February 1998	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles											P-1 Item Nomenclature:	
Program Elements for Code B Items:											PRODUCTION BASE SUPPORT (WOCV-WTCV) (GC0050)	
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	723.8	10.3	5.9	4.3	6.1	5.1	4.6	4.6	4.9	4.9	0.0	774.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	723.8	10.3	5.9	4.3	6.1	5.1	4.6	4.6	4.9	4.9	0.0	774.5
Initial Spares												
Total Proc Cost	723.8	10.3	5.9	4.3	6.1	5.1	4.6	4.6	4.9	4.9	0.0	774.5
Flyaway U/C												
Wpn Sys Proc U/C												
Description: This program provides for Provision of Industrial Facilities (PIF). Funds are used to establish modernize, expand and replace facilities owned by the Army and provide Production Support and Equipment Replacement (PSR) and Modernization (MOD) to Government owned equipment used in production, production testing of Weapons and Tracked Combat Vehicles. Also provides funding for the Layaway of Industrial Facilities (LIF) for preservation of equipment and portions of plants which are no longer required for active production. Justification: The FY99 request includes essential funding for replacement of equipment & instrumentation in production test facilities at Aberdeen, Yuma Proving Grounds, and White Sands Missile Range (WSMR) and layaway of industrial equipment which is excess to production requirements at Rock Island and Watervliet Arsenals.												
				FY 1996	FY 1997	FY 1998	FY 1999					
PIF			3.215	2.904	3.489	3.441						
LIF			<u>2.640</u>	<u>1.392</u>	<u>2.578</u>	<u>1.699</u>						
TOTALS			5.855	4.296	6.067	5.140						

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat				P-1 Line Item Nomenclature: PRODUCTION BASE SUPPORT (WOCV- WTCV) (GC0050)				Weapon System Type:		Date: February 1998	
ID	CD	FY 96		FY 97		FY 98		FY 99		TotalCost	Qty	UnitCost	UnitCost
		TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each				
WTCV Cost Elements													
09X5263 MOD, Aberdeen Proving Ground Provides funds to replace, modernize and upgrade equipment and instrumentation used in production testing of Wpns & Trkd Cmbt Vehs. Upgrading will be performed on automotive performance test equipment, vehicle dynamics, high speed imaging, interior exterior ballistics support inst, and toxic fumes instrumentation.		\$1.360			\$1.068			\$1.470		\$1.472			
09X5268 MOD, Yuma Proving Grounds Provides funds to replace, modernize and upgrade equip/instrumentation used in production testing of WTCV.		\$1.214			\$0.966			\$1.480		\$1.430			
09X5269 PSR, White Sands Missile Range Provides funds to replace, modernize and upgrade equip/instrumentation used in production testing at WSMR.		\$0.641			\$0.870			\$0.539		\$0.539			
69X7667 LIF, Rock Isl & Watervliet Arsenal Provides funds for Layaway and Redis- tribution of Government-Owned equipment and preservation of equipment to include portions of plants which are no longer required for active production, but must be retained for future use. Also provides for plant clearance/preparation of equipment to be excessed.		\$2.640			\$1.392			\$2.578		\$1.699			
TOTAL		\$5.855			\$4.296			\$6.067		\$5.140			

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:						Date:		February 1998				
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles						P-1 Item Nomenclature:		INDUSTRIAL PREPAREDNESS (GC0075)				
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	37.2	6.7	5.3	5.1	5.6	4.0	4.5	4.4	5.1	4.8	0.0	82.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	37.2	6.7	5.3	5.1	5.6	4.0	4.5	4.4	5.1	4.8	0.0	82.5
Initial Spares												
Total Proc Cost	37.2	6.7	5.3	5.1	5.6	4.0	4.5	4.4	5.1	4.8	0.0	82.5
Flyaway U/C												
Wpn Sys Proc U/C												
DESCRIPTION: This program provides funding to retain, protect, and maintain laidaway reserve industrial plants and equipment. Costs include grounds, utilities, fire and guard protection. Also includes funding for condition assessments of laidaway facilities and costs to rehabilitate equipment to useable condition. JUSTIFICATION: The FY99 request supports the equipment and facilities at Rock Island & Watervliet Arsenals. It includes the overhead cost attributed to the laidaway portions of the Arsenal. Funds also support some of the retention, maintenance and the cost for guard protection at the facilities which are not being utilized.												

Exhibit P-5, Weapon WTCV Cost Analysis			Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CNBT VEHS / 2 / Weapons and Other Combat			P-1 Line Item Nomenclature: INDUSTRIAL PREPAREDNESS (GC0075)			Weapon System Type:			Date: February 1998		
ID	WTCV Cost Elements	CD	FY 96			FY 97			FY 98			FY 99		
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
	49X2100 Plant-Equip Storage, SEAD Provided for storage and maintenance of equipment which was retained at Seneca Army Depot (SEAD) to meet future production requirements.		\$1,049			\$0.108								
	49X4290 Ret & Maintenance - Facilities Provides for storage of equipment for future production at Rock Island and Watervliet Arsenals. Also funds for ground maint., fire and guard protection for inactive portions.		\$2.182			\$2.182			\$2.761			\$0.502		
	69X7670 Ret & Maintenance - Plants/Equip. Provides for overhead costs attributed to laidaway portions of Watervliet & Rock Island Arsenal. Also funds storage and mainten- ance costs of equipment which has been laidaway for future production.		\$2.052			\$2.778			\$2.879			\$3.457		
	TOTAL		\$5.283			\$5.068			\$5.640			\$3.959		

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:										Date:		
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles										February 1998		
P-1 Item Nomenclature:										SMALL ARMS (SOLDIER ENH PROG) (GC0076)		
Program Elements for Code B Items:										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	2.4	5.3	4.1	5.2	5.3	3.6	0.3	2.0	0.0	28.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	2.4	5.3	4.1	5.2	5.3	3.6	0.3	2.0	0.0	28.3
Initial Spares												
Total Proc Cost	0.0	0.0	2.4	5.3	4.1	5.2	5.3	3.6	0.3	2.0	0.0	28.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: This program provides small arms equipment for the soldier, a HMMWV Mount, Dual Mount. The HMMWV Mount provides the soldier with a pedestal and a mount for firing the M249 Squad Automatic Weapon (SAW) and M60 Machine Gun from the M998 HMMWV and a mount for firing the M249 from the M1025/1026 HMMWV. The Dual Mount can be used in both the vehicular (Armament HMMWV) and ground mount application for the MK19 Grenade Machine Gun (GMG) and M2 Heavy Barrel Machine Gun.

JUSTIFICATION: Certain applications of the M998 HMMWV require that weapons be displayed and be available quickly for enemy confrontation. The field has devised several non-standard and possibly unsafe methods of mounting weapons on the M998. This program will provide a standard, supportable weapon mount. Military Police and certain infantry units currently mount the M60 Machine Gun on the M1025/1026. As the M60 is replaced by the M249 Machine Gun the need to mount the M249 on the M1025/1026 HMMWV arises. The Dual Mount will be fielded to scout platoons enabling them to install or switch weapons quickly in the event one vehicle goes down. In addition, procurement quantities have been increased to allow fielding to Infantry Anti-Armor and Military Police units. The system corrects the shortcomings of the current MK64 system allowing for bold and accurate traverse and elevation, further range (elevation) for the MK19, recoil attention of the M2 Machine Gun and capability for range card preparation.

Exhibit P-5, Weapon WTCV Cost Analysis				Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat				P-1 Line Item Nomenclature: SMALL ARMS (SOLDIER ENH PROG) (GC0076)				Weapon System Type:				Date: February 1998			
WTCV Cost Elements				FY 96				FY 97				FY 98				FY 99			
ID				TotalCost	Qty	UnitCost		TotalCost	Qty	UnitCost		TotalCost	Qty	UnitCost		TotalCost	Qty	UnitCost	
CD				\$000	Each	\$		\$000	Each	\$		\$000	Each	\$		\$000	Each	\$	
1. Hardware																			
MK93 MOD 1 DUAL MOUNT				1600	1029	1555		221	103	2146						2731	1241		2201
Dual Mount - New Contract								1300	500	2600									
HMMWV M249 Mount M998 (Quantity)				197	120	1642		1254	660	1900		1583	660						
HMMWV Mount M1025/1026 (Quantity)				36	80	450		660	1320	500		583	1740			905	2550		355
MK93 MOD1 (ECP)																390			
2. ESIP																			
Dual Mount				225				459								270			
HMMWV M249 Mount				117				398				560				250			
3. Testing																50			
Dual Mount				50				450				550				207			
HMMWV M249 Mount																			
4. Integrated Logistics Support																			
Dual Mount				25				20								200			
HMMWV M249 Mount				47				153				50							
Materiel Release/Engineering Studies				53				293				537							
5. Fielding																230			
HMMWV M249 Mount								130				230							
TOTAL				2350				5338				4093				5233			

Exhibit P-5a, Budget Procurement History and Planning										
Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles			Weapon System Type:			P-1 Line Item Nomenclature: SMALL ARMS (SOLDIER ENH PROG) (GC0076)				Date: February 1998
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 Revisn Avail	RFP Issue Date
DUAL MOUNT/FY96	Fraser Maunufacturing Corp	C/FFP	ACALA	May-96	Jan-98	1029	1555	Yes	Yes	Jan-98
DUAL MOUNT/FY97	Fraser Maunufacturing Corp	C/FFP	ACALA	May-97	Jul-98	366	2146			
DUAL MOUNT/FY97 New Contract				Sep-97	Dec-98	500	2600			
HMMWV M249 MOUNT/FY96 M6 Pedestal	Ramo Manufacture Inc. Nashville, Tn	C/FFP	ARDEC	Jul-96	Apr-97	120	1642	Yes	No	
M197	Nautic-All	C/FFP	ARDEC	Aug-96	Mar-97	200	450			
HMMWV M249 MOUNT/FY97 M6 Pedestal	Ramo Manufacture Inc. Nashville, Tn	C/FFP (Option)	ARDEC	Sep-97	Feb-98	660	1900	Yes	No	
M197 Mount	Ma-Tech Inc. Hebron, Va	C/FFP	ARDEC	Sep-97	Feb-98	2005	500			
HMMWV M249 MOUNT/FY98 M6 Pedestal	Ramo Manufacture Inc. Nashville, Tn	C/FFP (Option)	ARDEC	Mar-98	Jan-99	660	2064			
M197 Mount	Ma-Tech Inc, Hebron, Va	SS/8A	ACALA	Jun-98	Dec-98	2400	335			
HMMWV M249 MOUNT/FY99 M197 Mount	Ma-Tech Inc, Hebron, Va	C/FFP	ACALA	Jan-99	Dec-99	2550	355			
Dual Mount/FY99	TBS	C/FFP	ACALA	Jan-99	Jan-00	1241	2201			
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:		P-1 Item Nomenclature:										SPARES AND REPAIR PARTS (WTCV) (GE0150)	
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 3 / Spares and Repair Parts		Other Related Program Elements:											
Program Elements for Code B Items:		Code:											
	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	25.9	19.9	20.2	23.2	26.4	27.9	35.3	37.3	0.0	216.1	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	0.0	0.0	25.9	19.9	20.2	23.2	26.4	27.9	35.3	37.3	0.0	216.1	
Initial Spares													
Total Proc Cost	0.0	0.0	25.9	19.9	20.2	23.2	26.4	27.9	35.3	37.3	0.0	216.1	
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 repairable (DLRs) secondary items from the Supply Management, Army (SMA) revolving fund (formally Army Stock 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									
GE0161 M1A2	17.1	9.2	13.7	9.8									
GE0163 BFVS	4.9	2.3	.3	7.1									
GE0167 M109	2.4	6.4	3.6										
GE0171 IRV	1.6	2.0	.8	2.9									
GE0173 C2V			.9	2.5									
GE0177 HAB			.9	.9									
Total	25.9	19.9	20.2	23.2									

PROCUREMENT OF WEAPONS AND TRACKED COMBAT VEHICLES, ARMY

APPROPRIATION LANGUAGE

For construction, procurement, production, and modification of weapons and tracked combat vehicles, equipment; including ordnance, spare parts, and accessories therefore: specialized equipment and training devices; expansion of public and private plants, and the land necessary therefore, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes; \$1,433,608 in fiscal year 1999 to remain available for obligation until September 30, 2001.

PROCUREMENT OF WEAPONS AND TRACKED COMBAT VEHICLES, ARMY

SECTION 3

COMPARISON OF PROGRAM REQUIREMENTS AND FINANCING

Comparison of FY1998 program requirements as reflected in the FY1998 Budget Estimate with FY1998 program requirements as shown in the FY1999 Budget Estimates.

Comparison of FY1998 financing as reflected in the FY1998 Budget Estimate with FY1998 financing requirements as shown in the FY1999 Budget Estimates.

Comparison of FY 1997 program requirements as reflected in the FY 1998 Budget Estimate with FY 1997 program requirements as shown in the FY 1999 Budget Estimates.

Comparison of FY1997 financing as reflected in the FY1998 Budget Estimate with FY 1997 program requirements as shown in the FY1999 Budget Estimates.

**COMPARISON OF FY 1998 PROGRAM REQUIREMENTS
AS REFLECTED IN THE FY 1998 BUDGET ESTIMATE
WITH THE FY 1998 PROGRAM REQUIREMENTS AS
SHOWN IN THE FY 1999 BUDGET ESTIMATE
(In Thousands of Dollars)
SUMMARY OF REQUIREMENTS (In Thousands of Dollars)**

Appropriation	FY 1998 Requirements Per FY1998 Budget Estimate	FY 1998 Requirements Per FY1999 Budget Estimate	Increase (Decrease)
Procurement of Weapons and Tracked Combat Vehicles, Army			
Activity 1 - Tracked Combat Vehicles	995,854	1,199,918	204,064
Activity 2 - Weapons & Other Combat Vehicles	492,31	70,748	21,517
Activity 3 - Spares and Repair Parts	20,622	20,199	(423)
TOTAL	1,065,707	1,290,865	225,158

EXPLANATION BY ACTIVITY

Activity 1 - Tracked Combat Vehicles: The net increase resulted from Congressional adjustments to Bradley Base Sustainment (+\$110,000), FAASV (+\$40,000), Carrier Mods (+\$20,000), Howitzer 155mm (+\$56,000), Improved Recovery Vehicle (+\$4,000), as well as pro rata adjustments for Sections 8043, 8106, 8041 and Congressionally-directed economic assessments (-\$25,936) .

Activity 2 - Weapons and Other Combat Vehicles: The increase resulted from Congressional adjustments to Armored Machine Gun (+\$15,000), MK19-3 Grenade Launcher (+\$8,000) as well as pro rata adjustments for Section 8043, 8106, 8041 and Congressionally-directed economic assumptions (-\$1483).

Activity 3 - Spares and Repair Parts: The decrease resulted from pro rata adjustments for Section 8043 and 8106 and Congressionally-directed economic assumptions (-\$423)

**COMPARISON OF FY 1998 FINANCING
AS REFLECTED IN THE FY 1998 BUDGET ESTIMATE
WITH THE FY 1998 FINANCING AS
SHOWN IN THE FY 1999 BUDGET ESTIMATE
(In Thousands of Dollars)**

Appropriation	FY1998 Financing Per FY1998 Budget Estimate	FY1998 Financing Per FY1999 Budget Estimate	Increase or (Decrease)
Procurement of Weapons and Tracked Combat Vehicles, Army			
Program Requirements (Total)	1,244,707	1,342,565	97,858
Program Requirements (Service Account)	1,065,707	1,290,865	225,158
Program Requirements (Reimbursable)	179,000	51,700	(127,300)
Less:			
Anticipated Reimbursements	(179,000)	(51,700)	(127,300)
BUDGET AUTHORITY			
Appropriation	1,065,707	1,290,865	

**COMPARISON OF FY1997 PROGRAM REQUIREMENTS
AS REFLECTED IN THE FY1998 BUDGET ESTIMATE
WITH THE FY1997 PROGRAM REQUIREMENTS AS
SHOWN IN THE FY1999 BUDGET ESTIMATE
(In Thousands of Dollars)**

Appropriation Procurement of Weapons and Tracked Combat Vehicles, Army	FY 1997 Requirements Per FY1998 Budget Estimate	FY 1997 Requirements Per FY1999 Budget Estimate	Increase or (Decrease)
Activity 1 - Tracked Combat Vehicles	1,343,772	1,295,042	-48,730
Activity 2 - Weapons and Other Combat Vehicles	104,403	104,130	-273
Activity 3 - Spares and Repair Parts	20,280	19,883	-397
TOTALS	1,468,455	1,419,055	-49,400

EXPLANATION BY ACTIVITY

Activity 1 - Tracked Combat Vehicles - The decrease resulted from Acquisition Workforce Adjustments (-\$549), inflation adjustments (-\$4,561) reprogramming of the Armored Combat Earthmover to OPA (-\$50,952), reprogramming of Linebacker from Missiles (+\$7,100) and below threshold reprogrammings (+\$232).

Activity 2 - Weapons and Other Combat Vehicles - The decrease resulted from inflation adjustment (-\$367) and below threshold reprogrammings (-\$93).

Activity 3 - Spares and Repair Parts - The decrease resulted from inflation adjustment (-\$72) and below threshold reprogrammings (-\$325).

**COMPARISON OF FY1997 FINANCING
AS REFLECTED IN THE FY1998 BUDGET ESTIMATE
WITH THE FY1997 FINANCING AS
SHOWN IN THE FY1999 BUDGET ESTIMATE
SUMMARY OF REQUIREMENTS In Thousands of Dollars)**

Appropriation Procurement of Weapons and Tracked Combat Vehicles, Army	FY1997		FY1997 Financing Per FY1999 Budget Estimate	Increase or (Decrease)
	Financing Per FY1998 Budget Estimate	Financing Per FY1999 Budget Estimate		
Program Requirements (Total)	1,603,055	1,553,655	49,400	
Program Requirements (Service Account)	1,468,455	1,419,055	(49,400)	
Program Requirements (Reimbursable)	134,600	134,600	0	
Less:				
Anticipated Reimbursements	(134,600)	(134,600)	0	
BUDGET AUTHORITY				
Appropriation	1,468,455	1,419,055		