### **DEPARTMENT OF THE ARMY**

**Procurement Programs** 



Committee Staff Procurement Backup Book FY 2003 Budget Estimate

WEAPONS AND TRACKED COMBAT VEHICLES, ARMY

### 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 therefor; specialized equipment and training devices; expansion of public and private plants, including the land necessary therefor, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes, \$2,248,558,000, to remain available for obligation until September 30, 2005.

### Table of Contents - Procurement of W&TCV, Army

BLIN	SSN	Nomenclature	Page
1	GA5208	ABRAMS TRNG DEV MOD	1
2	G80718	BRADLEY BASE SUSTAINMENT	11
3	G80718	BRADLEY BASE SUSTAINMENT (Adv Proc)	27
4	G20900	BRADLEY FVS TRAINING DEVICES	32
5	G84600	HAB TRAINING DEVICES	36
6	GZ2500	BRADLEY FVS TRAINING DEVICES (MOD)	37
7	GB1300	ABRAMS TANK TRAINING DEVICES	45
8	G85100	INTERIM ARMORED VEHICLE (IAV) FAMILY	52
9	GB1930	CARRIER, MOD	62
10	GZ2300	FIST VEHICLE (MOD)	74
11	GZ2320	MOD OF IN-SVC EQUIP, FIST VEHICLE	80
12	GZ2400	BFVS SERIES (MOD)	81
13	GA0400	HOWITZER, MED SP FT 155MM M109A6 (MOD)	89
14	GA8010	FAASV PIP TO FLEET	95
15	GA0570	IMPROVED RECOVERY VEHICLE (M88 MOD)	101
16	GZ3250	HEAVY ASSAULT BRIDGE (HAB) SYS (MOD)	107
17	GZ3000	ARMORED VEH LAUNCH BRIDGE (AVLB) (MOD)	113
18	GA0700	M1 ABRAMS TANK (MOD)	123
19	GA0720	M1A1D RETROFIT	145
20	GA0730	SYSTEM ENHANCEMENT PGM: SEP M1A2	148
21	GA0750	ABRAMS UPGRADE PROGRAM	154

### Table of Contents - Procurement of W&TCV, Army

BLIN	SSN	Nomenclature	Page
22	GA0750	ABRAMS UPGRADE PROGRAM (Adv Proc)	163
23	GL3100	ITEMS LESS THAN \$5.0M (TCV-WTCV)	173
24	GA0050	PRODUCTION BASE SUPPORT (TCV-WTCV)	174
25	G13000	ARMOR MACHINE GUN, 7.62MM M240 SERIES	178
26	G12900	MACHINE GUN, 5.56MM (SAW)	183
27	G13400	GRENADE LAUNCHER, AUTO, 40MM, MK19-3	187
28	G02200	81MM MORTAR (ROLL)	192
29	G14900	M16 RIFLE	198
30	G01500	XM107, CAL. 50, SNIPER RIFLE	199
31	G14904	5.56 CARBINE M4	204
32	G01700	HOWITZER LT WT 155MM (T)	209
33	GB3000	MARK-19 MODIFICATIONS	210
34	GB3007	M4 CARBINE MODS	211
35	GZ1290	SQUAD AUTOMATIC WEAPON (MOD)	215
36	GZ1300	Medium Machine Guns (MODS)	216
37	GA0430	HOWITZER, TOWED, 155MM, M198 (MODS)	217
38	GC0401	M119 MODIFICATIONS	218
39	GZ2800	M16 RIFLE MODS	219
40	GC0925	MODIFICATIONS LESS THAN \$5.0M (WOCV-WTCV)	220
41	GL3200	ITEMS LESS THAN \$5.0M (WOCV-WTCV)	221
42	GC0050	PRODUCTION BASE SUPPORT (WOCV-WTCV)	222

### Table of Contents - Procurement of W&TCV, Army

BLIN	SSN	Nomenclature	Page
43	GC0075	INDUSTRIAL PREPAREDNESS	226
44	GC0076	SMALL ARMS (SOLDIER ENH PROG)	227
45	GC9500	CLOSED ACCOUNT ADJUSTMENTS	228
46	GE0150	SPARES AND REPAIR PARTS (WTCV)	229

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EXHIBIT P-1 DATE: 01-Feb-2002 8:48

### TABLE OF CONTENTS

				P	AGE
SUMMARY BY APPROPE	IÁTION			N <sup>2</sup>	2
SUMMARY BY ACTIVITY					
Procurement of V	V&TCV,	Army			3
ACTIV	TY: 01 TY: 02 TY: 03	Weapons and other combat vehicles			4 6 8
NOMENCLATURE INDEX					9
SSN INDEX					11

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EXHIBIT P-1 / DATE: 01-Feb-2002 8:48 .

APPROPRIATION SUMMARY
APPROPRIATION

Procurement of W&TCV, Army

TOTAL PROCUREMENT PROGRAM

			HOUSANDS	DOLLARS IN T
PAGE		FY 2003	FY 2002	FY 2001
3	 •	2,248,558	2,178,499	2,449,881
		2,248,558	2,178,499	2,449,881

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EXHIBIT P-1 DATE: 01-Feb-2002 8:48

	APPROPRIATION Procurement of W&TCV, Army		DOLLARS IN T	HOUSANDS		e de la companya de l
	ACTIVITY		FY 2001	FY 2002	FY 2003	PAGE
01	Tracked combat vehicles		2,319,988	2,065,053	2,120,038	
02	Weapons and other combat vehicles		103,812	76,569	103.085	4
03	Spare and repair parts	1.40	26,081	36,877	25,435	8
	APPROPRIATION TOTALS		2,449,881	2,178,499	2,248,558	

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### DEPARTMENT OF THE ARMY

### FY 2003 PROCUREMENT PROGRAM (WORKSETS INCLUDED)

President's Budget 2003

EXHIBIT P-1
DATE: 01-Feb-2002 8:48

		Tracked combat vehicles					DOLLARS IN 1 2001		OS 2002	FY	2003
LINE NO	ITEM NOMENCLATURE		ID			QTY	COST	QTY	COST	QTY	COST
	TRACKED COMBAT VEHICLES							1			,
1	ABRAMS TRNG DEV MOD (GA5208)		• .			•	5282		5506		5504
2	BRADLEY BASE SUSTAINMENT (G80718) Less: Advance Procurement (PY)		В				(423536)		(399299) (-12320)		(407237) (-10184)
3	BRADLEY BASE SUSTAINMENT (G80718) Advance Procurement (CY)				•	•	423,536 19823		386,979 2681	•	397,053
4	BRADLEY FVS TRAINING DEVICES (G20900)		Α				7370		2591	4.	
5	HAB TRAINING DEVICES (G84600)						1189				
, 6	BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500)		Α .				18410		8753		8532
7	ABRAMS TANK TRAINING DEVICES (GB1300)		Α				10407	•	11732	\$ \$ <sub>\$</sub>	12061
8	INTERIM ARMORED VEHICLE (IAV) FAMILY (G85100)				*	447	928427	303	657990	332	811831
	SUB-ACTIVITY TOTAL				•	·	1,414,444	_	1,076,232	<u> </u>	1,234,981
	MODIFICATION OF TRACKED COMBAT VEHICLES										
9	CARRIER, MOD (GB1930)		Α	•			54243		48229		60305
10	FIST VEHICLE (MOD) (GZ2300)						31606		6738		6966
11	MOD OF IN-SVC EQUIP, FIST VEHICLE (GZ2320)										692
12	BFVS SERIES (MOD) (GZ2400)		A				64325		54259		35033
13	HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400)		Α				7987	•	5333		17361
14	FAASV PIP TO FLEET (GA8010)		Α				5		9237		2944
15	IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570)		Α			29	76461	20	57710	. 16	50311
		*** UNC	LASSI	FIED ***				÷			EXHIBIT P-1 Page 4

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## DEPARTMENT OF THE ARMY FY 2003 PROCUREMENT PROGRAM (WORKSETS INCLUDED)

President's Budget 2003

EXHIBIT P-1
DATE: 01-Feb-2002 8:48

APPROPR	ATION Procurement of W&TCV, Army ACTIVITY 01 To	racked combat vehicles			FY 2	DOLLARS IN T		S 2002	EV	2003
LINE NO	ITEM NOMENCLATURE	3	ID		QTY	COST	QTY	COST	QTY	COST
16.	HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)					76295		7539		<del></del>
17	ARMORED VEH LAUNCH BRIDGE (AVLB) (MOD) (GZ3000)		Α			•		3997		10021
18	M1 ABRAMS TANK (MOD) (GA0700)		A			55476		81216		191413
19	M1A1D RETROFIT (GA0720)					1883		11566		
20	SYSTEM ENHANCEMENT PGM: SEP M1A2 (GA0730)				16	58111	25	99357	31	123697
21	ABRAMS UPGRADE PROGRAM (GA0750) Less: Advance Procurement (PY)		Α			(563880) (-273812)		(648246) (-256547)		(586859) (-210591)
22	ABRAMS UPGRADE PROGRAM (GA0750) Advance Procurement (CY)					290,068 172848		391,699 194438	· <u>-</u>	376,268
	SUB-ACTIVITY TOTAL				_	889,308		971,318	_	875,011
	SUPPORT EQUIPMENT AND FACILITIES			•						ŕ
23	ITEMS LESS THAN \$5.0M (TCV-WTCV) (GL3100)					7070		7593		146
24	PRODUCTION BASE SUPPORT (TCV-WTCV) (GA0050)					9166		9910		9900
	SUB-ACTIVITY TOTAL					16,236	_	17,503		10,046
	ACTIVITY TOTAL				-	2,319,988	· . <del>-</del>	2,065,053	_	2,120,038

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FY 2003 PROCUREMENT PROGRAM (WORKSETS INCLUDED)
President's Budget 2003

EXHIBIT P-1
DATE: 01-Feb-2002 8:48

EXHIBIT P-1 Page 6

APPROPR	ATION Procurement of W&TCV, Army ACTIVITY 02 Weapons and	d other combat vehicles			DOLLARS IN T		S 2002	FY 2	2003
LINE NO	ITEM NOMENCLATURE	<u>ID</u>		QTY	COST	QTY	COST	QTY	COST
	WEAPONS AND OTHER COMBAT VEHICLES								
25	ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000)	. <b>A</b>		1,306	12335	716	7978	2,217	21334
26	MACHINE GUN, 5.56MM (SAW) (G12900)	Á		4,280	16844				•
27	GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400)	A		811	15704	1,510	28626	669	16663
28	81MM MORTAR (ROLL) (G02200)				. · ·		3298	138	9821
29	M16 RIFLE (G14900)	A	•	9,296	4749	3,060	1964	5,631	3104
30	XM107, CAL. 50, SNIPER RIFLE (G01500)					150	2134	600	8913
31	5.56 CARBINE M4 (G14904)	<b>A</b>		16,215	10634	2,800	2383	12,505	9155
32	HOWITZER LT WT 155MM (T) (G01700)			٠			1099		
	SUB-ACTIVITY TOTAL			<u> </u>	60,266	<u> </u>	47,482		68,990
	MODIFICATION OF WEAPONS AND OTHER COMBAT VEHICLES								
33	MARK-19 MODIFICATIONS (GB3000)		•		2796		739	• .	2743
34	M4 CARBINE MODS (GB3007)	A	•		10499				9267
35	SQUAD AUTOMATIC WEAPON (MOD) (GZ1290)				2920		4419		4119
36	Medium Machine Guns (MODS) (GZ1300)	Α			491		741		
37	HOWITZER, TOWED, 155MM, M198 (MODS) (GA0430)				3474		2804		
38	M119 MODIFICATIONS (GC0401)	· <b>A</b>			4662		4853		4852
39	M16 RIFLE MODS (GZ2800)	Α			4343		2085		•
40	MODIFICATIONS LESS THAN \$5.0M (WOCV-WTCV) (GC0925)				2279		1252		817

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### DEPARTMENT OF THE ARMY FY 2003 PROCUREMENT PROGRAM (WORKSETS INCLUDED)

President's Budget 2003

EXHIBIT P-1
DATE: 01-Feb-2002 8:48

APPROPRI	IATION Procurement of W&TCV, Army ACTIVITY 02 W	eapons and other combat vehicles	ĖΥ	DOLLARS IN 1 2001		DS 2002	FY	2003
LINE NO	ITEM NOMENCLATURE	<u>ID</u>	QTY	COST	QTY	COST	QTY	cost
	SUB-ACTIVITY TOTAL			31,464	-	16,893		21,798
	SUPPORT EQUIPMENT AND FACILITIES		ľ		·	•		•
41	ITEMS LESS THAN \$5.0M (WOCV-WTCV) (GL3200)			1172		1267		1265
42	PRODUCTION BASE SUPPORT (WOCV-WTCV) (GC0050)			5743		6385		5832
43	INDUSTRIAL PREPAREDNESS (GC0075)			2933		4241		3246
44	SMALL ARMS (SOLDIER ENH PROG) (GC0076)			2117		301		1954
45	CLOSED ACCOUNT ADJUSTMENTS (GC9500)			117				
	SUB-ACTIVITY TOTAL			12,082	• -	12,194	•	12,297
	ACTIVITY TOTAL	·		103,812	-	76,569		103.085

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### DEPARTMENT OF THE ARMY FY 2003 PROCUREMENT PROGRAM (WORKSETS INCLUDED)

President's Budget 2003

EXHIBIT P-1
DATE: 01-Feb-2002 8:48

APPROPR	IATION Procurement of W&TCV, Army ACTIVITY 03 Spare a	nd repair parts		DOLLARS IN 1	HOUSANI	os		
			FY	2001		2002	F'	Y 2003
LINE NO	ITEM NOMENCLATURE	ID	QTY	COST	QTY	COST	QTY	COST
	SPARES AND REPAIR PARTS							
46	SPARES AND REPAIR PARTS (WTCV) (GE0150)	*	i i	26081		36877		25435
	SUB-ACTIVITY TOTAL			26,081	-	36,877		25,435
	ACTIVITY TOTAL	•	•	26,081	-	36,877		25,435
	APPROPRIATION TOTAL			2,449,881		2,178,499		2,248,558

Exh	nibit P-40	, Budge	t Item J	ustifica	tion She	Date: February 2002						
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /1/Tracked combat vehicles						P-1 Item Nomenclature ABRAMS TRNG DEV MOD (GA5208)						
Program Elements for Co	rogram Elements for Code B Items:					ed Program Elements:						
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	23.5	8.5	2.6	5.3	5.5	5.5	5.8	3.4	3.4	3.5	83.0	149.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	23.5	8.5	2.6	5.3	5.5	5.5	5.8	3.4	3.4	3.5	83.0	149.9
Initial Spares												
Total Proc Cost	23.5	8.5	2.6	5.3	5.5	5.5	5.8	3.4	3.4	3.5	83.0	149.9
Flyaway U/C												
Wpn Sys Proc U/C												

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 needed to keep simulators abreast of developments in the Fielded Abrams Tank fleet. These system modifications support the Legacy transition path of the Transformation Campaign Plan (TCP).

### Justification:

FY03 Procures M1A2 SEP (System Enhancement Program) upgrade kits to 10 Conduct of Fire Trainers (COFT's), 5 Tank Driver Trainer's (TDT's), 4 Advanced Gunnery Training Systems (AGTS's), 5 Close Combat Tactical Trainers (CCTT's) and software upgrades for all Maintenance Training Systems (MTS's). This program meets needs validated by the Abrams tank user community. Degradation of tank training will occur if these modifications are delayed or deleted. The Conduct of Fire Trainer (COFT) Modifications are converting obsolete M60A3 trainers to M1A1 tank family trainers and are for National Guard units only. The other trainers detailed herein are for units at FORSCOM, USAREUR, TRADOC and Army Reserve units. All of these modifications represent significantly less costly alternatives to new procurements of similar equipment.

Since over 4000 tank crewmen and maintenance personnel train on these simulators each year, there are significant savings in fuel as well as tank wear and tear.

Exhibit P-40M	, Budget Item Justifica	ation Sheet				Dat	e:	F	ebruary 2002		
Appropriation/Budget Act Procurement of W&TC	tivity/Serial No: CV, Army /1/Tracked combat vehicles				P-1 Item Nomeno	clature	ABRAMS TR	NG DEV MOD (C	GA5208)		
Program Elements for Coo	de B Items:		Code:	Other Related I	Program Elements:	:					
Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Conduct of Fire Trnr (C	COFT) & M1A1D Conv.										
1-97-05-4526	Operational	12.1	0.7	0.9	1.0	1.0	1.1	1.2	1.0	25.1	44.1
M1A2 AGTS/Sep M	odification										
1-97-05-4527	Operational	0.0	0.9	1.0	2.7	3.3	1.7	0.0	0.0	0.0	9.6
CCTT SEP Modification	on										
1-97-05-4529	Operational	0.1	0.4	2.2	1.6	1.3	0.4	0.0	0.0	0.0	6.0
MTS SEP Modification	1										
1-97-05-4530	Operational	3.1	3.3	1.4	0.2	0.2	0.2	0.8	0.8	28.4	38.4
Totals		15.3	5.3	5.5	5.5	5.8	3.4	2.0	1.8	53.5	98.1

### INDIVIDUAL MODIFICATION Date: February 2002

MODIFICATION TITLE: Conduct of Fire Trnr (COFT) & M1A1D Conv. [MOD 1] 1-97-05-4526

MODELS OF SYSTEM AFFECTED: M1 & M1A1 COFTs

### DESCRIPTION/JUSTIFICATION:

The Image Generator (IG) and computer subsystems in the COFTs are of early 1980's design. Sustainability is a major issue as repair and replacement parts are becoming more expensive or entirely unavailable on the commercial market. Likewise, the older software designed to run on these components is difficult to sustain. Replacing the IG and computer with new technology will position the COFT fleet to support tank units and institutions beyond the year 2000.

### DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Contractor Test & Evaluation.....PLA NNED: 4Q99 .....ACCOMPLISHED: 4Q00 Initial Operational Test & Evaluation...PLANNED: 1Q01 .....ACCOMPLISHED: 1Q01

Installation	Schedule:
--------------	-----------

Inputs Outputs

Pr Yr		FY:	2001			FY:	2002			FY 2	2003			FY 2	2004			FY 2	2005	
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
15		4				4				4				4				4		
12					3			2	2			2	2			2	2			2

		FY	2006			FY	2007			FY 2	2008			FY :	2009		То	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		35
Outputs	2			2	2													35

METHOD OF IMPLEMENTATION:	Contractor	ADMINISTR	ATIVE LEADTII	ME:	9 Months	PRODUCTI	ION LEADTIME:	18 Months
Contract Dates:	FY 2002	MAR 02	FY 2003	MAR 03		FY 2004	MAR 04	
Delivery Date:	FY 2002	SEP 03	FY 2003	SEP 04		FY 2004	SEP 05	

### INDIVIDUAL MODIFICATION

Date:

February 2002

MODIFICATION TITLE (Cont): Conduct of Fire Trnr (COFT) & M1A1D Conv. [MOD 1] 1-97-05-4526

FINANCIAL PLAN: (\$ in Millions)

	FY :	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	T	C	ТОТ	ΊΑL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	15	2.6	4	0.7	4	0.9	4	1.0	4	1.0	4	1.1	4	1.2	3	1.0	21	6.0	63	15.5
Installation Kits		9.5																		9.5
Installation Kits, N / R																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data (Software Upgr - ACSL)																		19.1		19.1
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		12.1		0.7		0.9		1.0		1.0		1.1		1.2		1.0		25.1		44.1

	INDIVIDUAL MODIFICATION	Date:	February 2002
MODIFICATION TITLE: M1A2 AGTS / Sep Modification [MOD 2] 1-97-05-4527			
MODELS OF SYSTEM AFFECTED: M1A2 SEP Advanced Gunnery Training Sy	vstem (AGTS).		
DESCRIPTION/JUSTIFICATION:			
The existing M1A2 advanced Gunnery Training Simulators will be nexisting trainers is more cost effective than procuring new trainers. It	· ·		

### DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Contractor Test & Evaluation ............ PLANNED: 1Q01 ... ACCOMPLISHED: 1Q01 Initial Operational Test & Evaluation ... PLANNED: 2Q01 ... ACCOMPLISHED: 2Q01

Installation Schedule:																					
	Pr Yr		FY	2001			FY:	2002			FY 2	2003			FY 2	2004			FY	2005	
	Totals	1	2	. 3	4	1	2	3	4	1	2	3	4	1	2	3		4 1	2	3	3 4
Inputs							2				4				4				4		
Outputs													2					4			4
		FY 2	2006			FY 2	2007			FY:	2008			FY 2	2009			To			Totals
	1	2	3	4	. 1	2	3	4	1	2	3	4	1	2	3	4		Complete			
Inputs																					14
Outputs				4																	14
METHOD OF IMPLEM	ENTATION	J:	Contract	or		ADMINI	STRATIV	VE LEAD	TIME:		6 Months			PRODUC	TION L	EADTIM	Œ:	18 Mont	hs		
Contract Dates:			FY 2002	J	AN 02			FY 2003	JAN	N 03				FY 2004	JA	N 04					
Delivery Date:			FY 2002	J	UL 03			FY 2003	JUI	_ 04				FY 2004	JUI	L 05					

### INDIVIDUAL MODIFICATION

Date:

February 2002

MODIFICATION TITLE (Cont): M1A2 AGTS / Sep Modification [MOD 2] 1-97-05-4527

FINANCIAL PLAN: (\$ in Millions)

	FY	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	Т	C	ТОТ	ΊΑL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity																				
Installation Kits		0.0			2	1.0	4	2.7	4	2.1	4	1.7							14	7.5
Installation Kits, Nonrecurring				0.9						1.2										2.1
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
																				_
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		0.9		1.0		2.7		3.3		1.7		0.0		0.0		0.0		9.6

	INDIVIDUAL MODIFICATION	Date:	February 2002
MODIFICATION TITLE: CCTT SEP Modification [MOD 3] 1-97-05-4529			
MODELS OF SYSTEM AFFECTED: Close Combat Tactical Trainer (CCTT)			
DESCRIPTION/JUSTIFICATION:			
The existing M1A2 Close Combat Tactical Trainer (CCTT) modules wi will insure that as M1A2 SEP tanks are fielded there are sufficient CCT effectively simultaneous so there is no separate delivery schedule show	Ts for the receiving units to conduct simulated training exe		
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:			
Contractor Test & Evaluation			

	Pr Yr		FY 200	01			FY 2	2002			FY 2	.003			FY 200	14		FY 200	)5	
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4 1	2	3	4
Inputs Outputs												14			14	8		8	12	
		FY 20	006			FY 20	007			FY	2008			FY 200	09		To		Т	Γotals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete			
Inputs			4																	38
Outputs		12				4														38
METHOD OF IMPLE	MENTATION	: C	Contractor		Ā	ADMINIS'	TRATIV	/E LEAD	TIME:		6 Months		PF	RODUCT	ION LEAI	DTIME:	15 Month	18		
Contract Dates:		F	Y 2002	M	AR 02		]	FY 2003	MA	AR 03			FY	2004	MAR	04				
Delivery Date:		F	Y 2002	Dl	EC 03		]	FY 2003	DE	C 04			FY	2004	DEC (	)5				

### INDIVIDUAL MODIFICATION

Date:

February 2002

MODIFICATION TITLE (Cont): CCTT SEP Modification [MOD 3] 1-97-05-4529

FINANCIAL PLAN: (\$ in Millions)

	FY	2000																		
	and	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	Т	C	TOT	`AL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity																				
Installation Kits					14	2.2	8	1.6	12	1.3	4	0.4							38	5.5
Installation Kits, Nonrecurring		0.1		0.4																0.5
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 - Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.1		0.4		2.2		1.6		1.3		0.4		0.0		0.0		0.0		6.0

INDIVIDUAL MODIFICATION	Date:	February 2002

MODIFICATION TITLE: MTS SEP Modification [MOD 4] 1-97-05-4530

MODELS OF SYSTEM AFFECTED: M1A2 Maintenance Training System (MTS) Maintenance Simulators

### DESCRIPTION/JUSTIFICATION:

The existing M1A2 Maintenance Trainers will be modified so that they represent the most recent System Enhancement Package (SEP) changes to fielded M1A2 tanks. This modification will insure that as Abrams M1A2 SEP tanks are fielded there are sufficient MTSs for the receiving units to conduct simulated training exercises. Note that delivery and installation are effectively simultaneous so a separate delivery schedule is not shown.

### DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:																					
	Pr Yr		FY	2001			FY	2002			FY 20	003			FY 2	2004			FY	2005	
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2		3	4 1	2		3 4
Inputs	2						1														
Outputs	2										1										
		FY	2006			FY 2	2007			FY 2	2008			FY 20	09			To			Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3		4	Complete			
Inputs																					3
Outputs																					3
METHOD OF IMPLEMI	ENTATION	<b>V</b> :	Contracto	or		ADMINI	STRATI	VE LEAD	TIME:		6 Months		I	PRODUCT	ION LE	EADTIN	ИE:	12 Mont	ns		
Contract Dates:			FY 2002	J.	AN 02			FY 2003					I	FY 2004							
Delivery Date:			FY 2002	N	1AR 03			FY 2003					I	FY 2004							

### INDIVIDUAL MODIFICATION

Date:

February 2002

MODIFICATION TITLE (Cont): MTS SEP Modification [MOD 4] 1-97-05-4530

FINANCIAL PLAN: (\$ in Millions)

	FY	2000																		
	and	Prior	FY 2	2001	FY:	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY	2007	T	C	TOT	ΓAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity																				
Installation Kits			2	3.3	1	1.4													3	4.7
Installation Kits, Nonrecurring		3.1						0.2		0.2		0.2		0.8		0.8		8.2		13.5
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data (Software Upgr - ACSL)																		20.2		20.2
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 - Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		3.1		3.3		1.4		0.0		0.0		0.0		0.8		0.8		28.4		38.4
15th From Cost		3.1		5.5		1.7		5.2		0.2		0.2		0.0		0.0		20.7		55.7

Exh	ibit P-40	, Budge	t Item J	ustifica	tion She	eet	D	ate:	F	February 2002		
Appropriation/Budget Acti Procurement of W&TCV, Arm	•	t vehicles				P-1 Item Nom BRA		E SUSTAINME	ENT (G80718)			
Program Elements for Cod	e B Items:			Code: L	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	643	126	140	157	142	138	131	140	100	71		1788
Gross Cost	1067.9	362.5	380.9	423.5	399.3	407.2	396.1	409.7	329.7	272.1	185.4	4634.4
Less PY Adv Proc					12.3	10.2		2.6	3.8	3.3		32.1
Plus CY Adv Proc				19.8	2.7		9.6					32.1
Net Proc (P-1)	1067.9	362.5	380.9	443.4	389.7	397.1	405.7	407.1	325.9	268.8	185.4	4634.4
Initial Spares	7.4	7.1	9.1	11.4	10.7	13.4	12.9	8.9	9.8	10.3	15.2	116.1
Total Proc Cost	1075.3	369.5	390.1	454.8	400.3	410.4	418.6	416.0	335.7	279.1	200.6	4750.5
Flyaway U/C												
Wpn Sys Proc U/C		2.9	2.7	2.8	2.7	2.9	3.1	2.9	3.3	3.8		

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. FY97-00 provided four years of A3 LRIP vehicles. FY01 marked the first full rate production year of the A3 configuration and the first year of a three year multiyear contract. 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. The system supports the Legacy transition path of the Transformation Campaign Plan.

#### Justification:

FY03 procures the third year of full rate of production for the A3 upgrade program. This is the third year of a three year multi-year contract signed for FY's 01-03. The A3 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 in prior years are a mix of A0 to A2's; A0 to A2 Linebackers and A2 to A3's; a mix of A0 to A2ODS's and A2 to A3's in FY99-FY01; and all A2 to A3's thereafter.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/F Procurement o Tracked comb	f W&TCV, A				tem Nomenclature BASE SUSTAINM			Weapon System T	Гуре:	Date: Februa	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	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 (A2) BRADLEY BASE SUSTAINMENT (A3)					70771 383998	48 109	1475 3523	1651 398666	142	2 2808	3543 406860		2949
Total					454769			400317			410403		

Exh	ibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	te:	F	February 2002		
Appropriation/Budget Act Procurement of W&TCV, Art	•	t vehicles				P-1 Item Nom BRA		E SUSTAINME	NT (M2A2/) (	(G80716)		
Program Elements for Coo	de B Items:			Code: L	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	590	53	60	48								751
Gross Cost	775.9	92.4	80.7	70.8	1.7	3.5	3.6	0.2	2.6	0.2		1031.6
Less PY Adv Proc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Plus CY Adv Proc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Net Proc (P-1)	775.9	92.4	80.7	70.8	1.7	3.5	3.6	0.2	2.6	0.2		1031.6
Initial Spares												
Total Proc Cost	775.9	92.4	80.7	70.8	1.7	3.5	3.6	0.2	2.6	0.2		1031.6
Flyaway U/C												
Wpn Sys Proc U/C		1.7	1.3	1.5								

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. Quantities in prior years are a mix of A0 to A2ODS's, A0 to A2 Linebackers. Quantities are A0 to A2ODS's in FY99-01.

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

### **Justification:**

F03 procures fielding of these systems.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/I Procurement of Tracked comb	of W&TCV, A	vity/Serial No. rmy / 1 /		P-1 Line I BRADLEY	tem Nomenclature BASE SUSTAINMI	e: ENT (M2A2/) (G8071	6)	Weapon System	Туре:	Date: Febru	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
National Guard Vehicle Other GFE (New) Other GFE (Reman) Contractor Engineering National Guard Fielding  National Guard Program  BFVS Fielding		\$000	Each	\$000	\$000 42501 5245 2719 8264 5917 <b>64646</b> 6125	48 48 48	\$000 886 110 57	\$000 1651	Each	\$000	\$000 3543	Each	\$000
Total					70771			1651			3543		

Exhibit P-5a, Budget Procurer	ment History and Planning							Date: F	ebruary 2	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked combat ve	ehicles	Weapon Systo	ет Туре:		P-1 Line Ito BRADLEY BA		lature: MENT (M2A2/) (G807	716		
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Vehicle FY 2001	UDLP York PA	SS/FFP	TACOM	MAY-01	JUL-02	48	886	YES		
REMARKS:										

	FY 01 / 02 BUDGET PR	OD	UCTION	SCH	IEDUL.	E			tem N DLEY				INME	ENT (	M2A2/	/) (G8	6071 <i>6</i>	5)					]	Date:			Feb	ruary	2002			
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				S	PROC	ACCEP	BAL			_					Calen	ıdar Y	Year	01	_						_	_	_	Year (	2			L A
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	FY 03 / 04 BUDGET PR	OD	UCTION	SCH	[EDUL]	E					nclatu SE SU		INME	ENT (	M2A2	2/) (G	38071	6)					1	Date:			Feb	ruary	2002			
												Fis	scal Y	ear (	)3									F	iscal	Year	04					
				S	PROC	ACCEP	BAL										· Yea								_	_	_	Year (	)4			L A
	COST ELEMENTS	M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
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M			PRO	ODUCTI	ON RATES			M	FR						ADM	IINLE	EAD T	IME			MFR			ТОТА	L	R	EMAF	RKS				
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R	NAME/LOCATION		MIN.	1	-8-5	MAX.	D+		1	INIT	TAL				0			7			15			22		1						
1	UDLP, York PA		8.00		15.00	25.00	6		1	REO	RDER				0			0			0			0		1						
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Exh	ibit P-40	, Budge	t Item J	ustifica	tion She	et	Da	te:	F	ebruary 2002				
Appropriation/Budget Acti Procurement of W&TCV, Arm	•	t vehicles				P-1 Item Nom BRA		E SUSTAINME	ENT (M2A3) (	G80717)				
Program Elements for Cod	e B Items:			Code: L	Other Relate	ed Program Ele	ements:							
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog		
Proc Qty														
Gross Cost	292.0													
Less PY Adv Proc					12.3	10.2		2.6	3.8	3.3		32.1		
Plus CY Adv Proc				19.8	2.7		9.6					32.1		
Net Proc (P-1)	292.0	270.1	300.2	372.6	388.0	393.5	402.1	406.9	323.3	268.5	185.4	3602.8		
Initial Spares	7.4	7.1	9.1	11.4	10.7	13.4	12.9	8.9	9.8	10.3	15.2	116.1		
Total Proc Cost	299.4	277.2	309.4	384.0	398.7	406.9	415.0	415.8	333.1	278.8	200.6	3718.8		
Flyaway U/C														
Wpn Sys Proc U/C		3.7	3.8	3.4	2.7	2.9	3.1	2.9	3.2	3.8				

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. FY97-00 provided the four years of A3 Low Rate Initial Production (LRIP) vehicles. FY01 marked the first full rate production year of the A3 configuration and was the first year of a three year multiyear contract. 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. The system supports the Legacy transition path of the Transformation Campaign Plan.

### **Justification:**

FY03 procures the third full rate production year for the A3 upgrade program and is the third year of a three year multiyear contact signed for FY's 01 to 03. The A3 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 three year multi-year contract was signed for FY's 01-03.

Date: Exhibit P-40C, Budget Item Justification Sheet February 2002 Appropriation/Budget Activity/Serial No: P-1 Item Nomenclature Procurement of W&TCV, Army /1/Tracked combat vehicles BRADLEY BASE SUSTAINMENT (M2A3) (G80717) Program Elements for Code B Items: Code: Other Related Program Elements: L A3 Advanced Procurement Detail (in Mils): FY 2001 2002 2003 2004 2005 2006 2007 FY2001 for FY2002 12.320 FY2001 for FY2003 7.503 (12.320)FY2002 FY2002 for FY2003 2.681 FY2003 (10.184)FY2004 for FY2005 2.566 FY2004 for FY2006 3.751 3.289 FY2004 for FY2007 FY2005 (2.566)FY2006 (3.751)FY2007 (3.289)

Exhibit P-5, Weapon WTCV Cost Analysis	Appropriation/l Procurement of Tracked comb	of W&TCV, A				tem Nomenclature BASE SUSTAINM		17)	Weapon System T	Type:	Date: Februa	ary 2002
WTCV		FY 00			FY 01			FY 02			FY 03	
Cost Elements 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
HARDWARE Vehicle				176983	109	1624	218254	142	1537	209530	138	1519
Improved Bradley Acq Subsystem (IBAS)				34949	109	321	44874	142	317	43528	138	316
Forward Looking Infrared (FLIR)				38033	109	349	45824	142		40099		291
Other GFE				12849	109	118	15915	142		26001		189
Pre Mod Depot Maint				1154	109	11	1275	142	. 9	815	138	6
Sub total				263968			326142			319973		
Other Production Cost												
Engineering - Government				19955			17159			17111		
Engineering - Contractor Project Management Administration				45892 2718			28523 2765			41179 2806		
Reimbursable Matrix Support				3092			3288			3339		
Test and Evaluation				3421			5430			4051		
Sub total				75078			57165			68486		
Peculiar Support Equipment				8766			8602			7610		
Fielding				4953			5739			7625		
Sub Total				13719			14341			15235		
GROSS P-1 END COST				352765			397648			403694		
LESS: PRIOR YEAR ADV PROC							12320			10184		
NET P-1 FULL FUNDING COST				352765			385328			393510		
PLUS: P-1 CY ADV PROC				19823			2681			5,5510		
OTHER NON P -1 COSTS												
INITIAL SPARES MODS				11410			10657			13350		
TOTAL				31233			13338			13350		
Total				383998			398666			406860		

Exhibit P-5a, Budget Procurement	History and Planning							Date:	ebruary 20	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked combat vehicles		Weapon Syste	em Type:			em Nomenc ASE SUSTAINM	717)			
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Vehicle										
FY 2001	UDLP YORK PA	MY/FFP	TACOM	MAY 01	AUG 02	109	1624	YES		
FY 2002	UDLP YORK PA	MY/FFP	TACOM	MAR 02	JUL 03	142	1537	YES		
FY 2003	UDLP YORK PA	MY/FFP	TACOM	MAR 03	JUN 04	138	1519	YES		
Improved Bradley Acq Subsystem (IBAS)										
FY 2001	RTIS/DRS DALLAS TX/ CAL	MY/FFP	AMCOM	MAY 01	FEB 02	109	321	YES		
FY 2002	RTIS/DRS DALLAS TX/ CAL	MY/FFP	AMCOM	JAN 02	FEB 03	142	317	YES		
FY 2003	RTIS/DRS DALLAS TX/ CAL	MY/FFP	AMCOM	JAN 03	FEB 04	138	316	YES		
Forward Looking Infrared (FLIR)										
FY 2001	RTIS/DRS DALLAS TX/CAL	MY/FFP	CECOM	JAN 01	DEC 01	109	349	YES		
FY 2002	RTIS/DRS DALLAS TX/CAL	MY/FFP	CECOM	JAN 02	DEC 02	142	323	YES		
FY 2003	RTIS/DRS DALLAS TX/CAL	MY/FFP	CECOM	JAN 03	DEC 03	138	291	YES		

REMARKS: Multi year procurements (FY 01-03) for Vehicle and IBAS

Multi year procurement (FY 02-03) for FLIR

										P-1 Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A3) (G80717)													Date: February 2002										
				Fiscal Year 01															I		cal Year 02 Calendar Year 02												
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Exhi	bit P-40	, Budge	t Item J	ustifica	tion She	eet	D	ate:	F	February 2002		
Appropriation/Budget Active Procurement of W&TCV, Army	-	t vehicles				P-1 Item Nom BRA		E SUSTAINME	ENT(Adv Proc	) (G80718)		
Program Elements for Code	B Items:			Code: L	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost												
Less PY Adv Proc												
Plus CY Adv Proc	0.0	0.0	0.0	19.8	2.7	0.0	9.6	0.0	0.0	0.0		32.1
Net Proc (P-1)				19.8	2.7		9.6					32.1
Initial Spares												
Total Proc Cost				19.8	2.7		9.6					32.1
Flyaway U/C												
Wpn Sys Proc U/C				·								

**Description:**Advance Procurement for Economic Order Quantity material for more economical buys than can be achieved with single year procurement.

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

Advance Procurement Requirem	ents A	Analys	is -Fundi	ng (P10A	.)	First System	April 2001		F	Completion Da February 2002	ite:	Date: I	ebruary 2002	
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /1/Tracked comb	at vehicle	es							ature / Weapon SUSTAINME					
, ,								in Millions)						
	PTL (mos)	When Rqd (mos)	Pr Yrs	L <b>FY 99</b>	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	To Comp	Total
Economic Order Quantity			53	73	80	109	142	138	131	140	100	71		103
Vehicle Components     Improved Bradley Recovery Subsys (IBAS)     Precision Lightweight GPS Receiver (PLGR)	17 13 12					11.2 8.1 0.6	2.7		9.6					11 20 0
Total Advance Procurement			0.0	0.0	0.0	19.8	2.7	0.0	9.6	0.0	0.0	0.0	0.0	32

Number of months refers to integration of components, not to EOQ material.

Advance Procurement Requireme	ents Aı	nalysis -Fu	nding (P10	<b>B</b> )				Date: Fe	bruary 2002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /1/Tracked comba	t vehicles				BRA	em Nomenclature / Weapor DLEY BASE SUSTAINMI			
					(\$	in Millions)			
		Quantity			2002			200	)3
	PLT (mos)	Per Assembly	Unit Cost	Qty	Contract Forcast Date	Total Cost Request	Qty	Contract Forcast Date	Total Cost Request
Vehicle Components     Improved Bradley Recovery Subsys (IBAS)     Precision Lightweight GPS Receiver (PLGR)	17 13 12	1 1 1		<b>V</b> .,	Jan 02	2.7			Cost Hequio
Total Advance Procurement						2.7			0.0

Advance Procurement Requiren	nents Analy	sis -Fundi	ng (P10C)							Date:	February 2002	
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /1/Tracked com	bat vehicles						omenclature / Wo BASE SUSTAI					
						(\$ in Mi	llions)					
	Pr Yrs	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	То Сотр	Total
Proposal w/o AP												
hen Year Cost				38	154	250	229	91	24	10	6	7
Constant Year Cost				38	149	237	213	83	22	8	5	7
resent Value				37	142	220	191	72	18	7	4	ć
AP Proposal												
hen Year Cost				37	144	219	195	77	21	8	5	ĺ
Constant Year Cost				36	139	208	182	70	19	7	5	(
resent Value				36	132	192	163	61	16	6	4	$\epsilon$
AP Savings (Difference)												
hen Year Cost				-2	-11	-31	-34	-14	-4	-2	-1	
Constant Year Cost				-2	-10	-30	-32	-13	-3	-2	-1	
resent Value				-2	-10	-28	-29	-11	-3	-1	-1	

#### Advance Procurement Requirements Analysis - Execution (P10D) Appropriation/Budget Activity/Serial No: P-1 Line Item Nomenclature / Weapon System Procurement of W&TCV, Army /1/Tracked combat vehicles BRADLEY BASE SUSTAINMENT (\$ in Millions) L 2000 2001 2002 2003 Contract Actual Total Actual Contract Actual Total Actual Contract Contract PTL Forecast Cost Contract Forecast Contract Cost Contract Forecast Forecast Contract (mos) Otv Date Date Request Cost Otv Date Date Request Cost Otv Date Date **Economic Order Quantity** 1. Vehicle Components 17 109 Jun 01 11.2 13 2. Improved Bradley Recovery Subsys (IBAS) 109 May 01 8.1 Jan 02 3. Precision Lightweight GPS Receiver (PLGR) 12 109 May01 0.6

Planned advance procurement.

**Total Advance Procurement** 

0.0

0.0

19.8

0.0

Exh	ibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	ate:	I	February 2002		
Appropriation/Budget Acti Procurement of W&TCV, Arm	-	t vehicles				P-1 Item Non BRA		TRAINING DE	VICES (G209	00)		
Program Elements for Cod	e B Items:			Code:	Other Relate	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	225.5	12.2	14.4	7.4	2.6							262.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	225.5	12.2	14.4	7.4	2.6							262.1
Initial Spares	1.8											1.8
Total Proc Cost	227.3	12.2	14.4	7.4	2.6							263.9
Flyaway U/C												
Wpn Sys Proc U/C												

The Bradley Advanced Training System (BATS) is a crew station simulator for the BFVS A3 turret. It is used for precision gunnery training and comes with an Instructor/Operator's station and a remote monitoring station. The basis of issue for the gunnery trainer is one per mechanized infantry battalion, four at the USAARMS and six at the USAIS. Total requirement is 24. Close Combat Tactical Trainer (CCTT) requires an update to the A3 configuration. This effort includes the design, development and testing of the new A3 components for the base CCTT simulator.

The M2A3 Maintenance Trainer will be used at the USAARMS, Ft Knox to train the maintenance personnel. The system will consist of a Hands-on Turret Trainer (HOTT) and a computer workstation for classroom training. It is similar to the trainers in use for the Abrams tank system. Basis of issue is 5 HOTTs and 10 workstations for US Army Armor School and US Army Infantry School.

The Bradley is a Legacy system in support of the Army Transformation Campaign Plan.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/l Procurement of Tracked comb	of W&TCV, A				tem Nomenclature FVS TRAINING D			Weapon System	Гуре:	Date: Febru	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
<b>Cost Elements</b>	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 Advanced Training System (B ATS) Maintenance Trainers CCTT Simulator Engineering	1 2 3				3945 3425	3	1315	2591	2	2 1296			
Total					7370			2591					

<b>Exhibit P-5a, Budget Procurement Histor</b>	ry and Planning							Date: F	ebruary 20	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked combat vehicles		Weapon System	n Type:		P-1 Line Ite BRADLEY FV		ature: EVICES (G20900)			
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Maintenance Trainers FY 2002 F	Orlando, FL	FFP		Jan 02	Apr 03	2	1315 1296	yes		
REMARKS:										

	FY 02 / 03 BUDGET F	PROD	UCTION	SCE	IEDUL	E			Item N DLEY				IG DE	EVICI	ES (G	2090	0)						]	Date:			Fel	oruary	2002			
Г												Fis	scal Y	ear (	02									F		Year						
				S E	PROC	ACCEP	BAL									enda											ndar `	_	_			L A
	COST ELEMENTS	M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
Bı	adley Advanced Training System (B ATS)																										+	+-				
		1	FY 01	A	3	0	3				Α														1	1	1	1				0
M	aintenance Trainers																															
		2	FY 02	A	1	0	1								A															1		0
																										L			L			
																										┖	丄	丄	L			
_																										╄	╄	╄	┺	╙		
_																										_	┿	╄	_			
L																										╀	┿	╄	╄			
																										╀	+	+	╀	_		
_																										┢	+	+	-			
																										╀	+	+	╀			
																	_						_			┢	十	十	┢			
																										╆	+	+	┢			
																										t	+	+	t			
																										T	$\top$	+	Т			
																										T	$\top$		T			
To	tal				4		4																		1	1	1	1		1		
								O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	Α	U	J U L		S E P	
M			PR	ODUCT	ON RATES			M	FR						ADM	MINLE	EAD T	IME			MFR			ТОТА	L	R	REMAI	RKS				
F							REACHED							Pri	ior 1 O			fter 1 (	Oct	Ai	fter 1 C			fter 1								
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+			INIT	ΊΑL				0			0			0			0		1						
1	United Defense (LP), Orlando, FL		1.00		.00	.00	0		ı	REO	RDER				0			0			0			0		4						
2	Research Triangle Institue, Raleigh, NC		1.00		.00	.00	0	2	2	INIT					0			0			0			0		4						
_											RDER				0			0			0			0		4						
										INIT																-						
_										INIT	RDER															1						
											RDER															1						
										INIT																1						
								1			RDER															1						

Exhi	bit P-40	, Budge	t Item J	ustifica	tion Sho	eet		Date:	I	February 2002		
Appropriation/Budget Active Procurement of W&TCV, Army	•	t vehicles				P-1 Item Non HA		G DEVICES (G8	34600)			
Program Elements for Code	B Items:			Code:	Other Relat	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost		0.4	0.4	1.2								1.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)		0.4	0.4	1.2								1.9
Initial Spares												
Total Proc Cost		0.4	0.4	1.2								1.9
Flyaway U/C					·							
Wpn Sys Proc U/C												

The Wolverine (Heavy Assault Bridge) Training Aids, Devices, Simulations, and Simulators (TADSS) enable the training capability for the Army's digitized, Wolverine equipped battalions. Wolverine TADSS provides a training capability for operators, maintainers, and crews. This revised approach to training enables institutional, unit, and collective training. The revised program fields Wolverine TADSS to support unit training capability concurrent with initial (FY01) vehicle fieldings for operators and maintainers. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Exl	aibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	ate:	F	ebruary 2002		
Appropriation/Budget Ac Procurement of W&TCV, An		t vehicles				P-1 Item Nom BRA		ΓRAINING DE	EVICES (MOD	O) (GZ2500)		
Program Elements for Co	ode B Items:			Code:	Other Relat	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	11.2	2.5	14.3	18.4	8.8	8.5	3.5	2.5	5.7	4.7		80.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	11.2	2.5	14.3	18.4	8.8	8.5	3.5	2.5	5.7	4.7		80.1
Initial Spares												
Total Proc Cost	11.2	2.5	14.3	18.4	8.8	8.5	3.5	2.5	5.7	4.7		80.1
Flyaway U/C												
Wpn Sys Proc U/C												

Upgrades to the BFVS Training Devices are required every time the vehicle software changes. Current vehicle plans call for periodic software updates. These changes will effect the functionality of the Bradley Advanced Training System (BATS), Bradley Desktop Trainer (BDT), Precision Gunnery System (PGS) and the M2A3 Maintenance Trainers.

#### Justification:

FY03 procures the Unit Conduct of Fire Trainer (UCOFT) modifications designed to replace out-of-date Computer and Image Generator hardware with state-of-the-art equipment. It will also include installation of the Applique computer system in order to completely match the vehicle. It is following the same program for Abrams UCOFTs. UCOFTS will be modified in both Active and Reserve Components. This will insure the UCOFT will remain a viable Training Device as long as the M2A2ODS is in the inventory.

FY03 procures the Close Combat Tactical Trainer (CCTT), which will be modified to support the Bradley A3. This effort will procure M2A3 modification kits for the CCTT M2A2 simulators. The CCTT Simulator is a modular training device designed to support multiple configurations of the BFVS. It currently supports M2A2. These kits will allow training on the M2A2ODS and M2A3. It is imperative that the CCTT simulation systems keep pace with the Army's modernization initiatives. A total of 78 A3 CCTT kits and 62 ODS kits will be procured.

This program meets the requirements as stated in the Bradley Operational Requirements Document. A degradation of training will take place if these modifications are delayed or cancelled. Without satisfactory Training Devices, additional vehicles and increased OPTEMPO funding would be required.

The Bradley is a Legacy system in support of the Army Transformation Campaign Plan.

Appropriation/Budget Act Procurement of W&TC	ivity/Serial No: V, Army /1/Tracked combat vehicles				P-1 Item Nomeno	lature	BRADLEY FV	/S TRAINING DI	EVICES (MOD) (GZ	(2500)	
Program Elements for Coo	de B Items:		Code:	Other Related F	Program Elements:						
Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Software Upgrades											
1-96-05-4513	Operational	13.5	1.5	0.9	0.0	0.0	1.1	2.2	4.7	0.0	23.9
Precision Gunnery Syst	em										
1-99-05-4513	Operational	7.1	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5
Unit Conduct of Fire Tr	rainer (UCOFT) Mods										
1-99-05-4566	Operational	1.6	3.9	3.0	1.0	1.0	0.0	0.0	0.0	0.0	10.5
Close Combat Tactical	Trainer										
1-01-05-0010	Operational	0.0	8.0	4.8	7.5	2.5	1.4	0.0	0.0	0.0	24.2
Through Sight Video S	ystem (TSV) Mod										
1-99-05-4567	Unclassified	0.0	0.6	0.0	0.0	0.0	0.0	3.5	0.0	0.0	4.1
Prior Year Closed Mod	ifications										
0-00-00-0000		5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
Totals		28.1	18.4	8.7	8.5	3.5	2.5	5.7	4.7	0.0	80.1

Date:

February 2002

MODIFICATION TITLE: Software Upgrades [MOD 1] 1-96-05-4513

MODELS OF SYSTEM AFFECTED: BFVS COFTs, Precision Gunnery System, BATS, Bradley Desktop Trainer, Maintenance Training System

## DESCRIPTION/JUSTIFICATION:

Software updates will be required for training devices. As a system is upgraded/modified, software on the training device must be modified to ensure adequate training for the soldier. Planned upgrades include incorporation of the latest vehicle, FBCB2 and CCTT software packages into the BFVS Training Devices.

## DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Preliminary Design Review NA
Critical Design Review NA
Contractor Test & Evaluation NA
Initial Operational Test and Evaluation NA
IPR Production Decision NA
TDP Available NA

Installation	Schedule:
--------------	-----------

Inputs	
Outputs	
•	

Inputs Outputs

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

Totals	То		2009	FY 2			2008	FY 2			2007	FY 2			2006	FY 2	
	Complete	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1
0																	

			 1								-				
METHOD OF IMPLEMENTAT	ION:	Contracto		ADMINI	STRATIV	VE LEAD	TIME:		12 Mont		PRODUC	CTION L	EADTIM	IE:	12 Months
Contract Dates:		FY 2002	Q02		]	FY 2003	2	Q03			FY 2004				

Delivery Date: FY 2002 2Q03 FY 2003 2Q04 FY 2004

Date:

February 2002

MODIFICATION TITLE (Cont): Software Upgrades [MOD 1] 1-96-05-4513

FINANCIAL PLAN: (\$ in Millions)

	FY:	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY:	2007	T	C	TOT	ΓAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Software Mods - A2		11.2																		11.2
Software Mods - A3		2.3		1.5		0.9						1.1		2.2		4.7				12.7
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		13.5		1.5		0.9		0.0		0.0		1.1		2.2		4.7		0.0		23.9

Date:

February 2002

MODIFICATION TITLE: Unit Conduct of Fire Trainer (UCOFT) Mods [MOD 3] 1-99-05-4566

MODELS OF SYSTEM AFFECTED: UCOFT and COFT

#### DESCRIPTION/JUSTIFICATION:

The UCOFT modifications are designed to replace out-of-date Computer and Image Generator hardware with state-of-the-art equipment. It will also include installation of the Applique computer system in order to completely match the vehicle. It is following the same program for Abrams UCOFTs. Only select UCOFTS will be modified in both Active and Reserve Components based on mission need (digitization). There will be significant Operations and Support Costsavings for STRICOM Life-Cycle Support. This will insure the UCOFT will remain a viable Training Device as long as the M2A2ODS is in the inventory. This program includes the refurbishment of U-COFTS for the Engineering Squad Vehicle fielded in FY02.

#### DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Preliminary Design Review NA
Critical Design Review NA
Contractor Test & Evaluation NA
Initial Operational Test and Evaluation NA
IPR Production Decision NA
TDP Available NA

Installation Sc	nec	lu.	le
-----------------	-----	-----	----

Inputs	
Outputs	

Inputs Outputs

Pr Yr		FY:	2001			FY:	2002			FY:	2003			FY:	2004			FY	2005		
Totals	1	2	3	4	l 1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	3	4
10								10		5	5		4			4					
10								10		5	5		4			4					

Totals	То		009	FY 20			2008	FY 2			2007	FY 2			2006	FY :	
	Complete	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1
38																	
38																	

METHOD OF IMPLEMENTATION:	Contractor		ADMINISTRATIVE LEADTIME:	9 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2002	2Q02	FY 2003 4Q03		FY 2004	
Delivery Date:	FY 2002	2Q03	FY 2003 4Q04		FY 2004	

Date:

February 2002

MODIFICATION TITLE (Cont): Unit Conduct of Fire Trainer (UCOFT) Mods [MOD 3] 1-99-05-4566

FINANCIAL PLAN: (\$ in Millions)

	FY:	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY	2007	T	C	TOT	TAL .
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity																				
UCOFT	10	1.6																	10	1.6
UCOFT Refurb ODS Engr Squad					10	3.0	4	1.0	4	1.0									18	5.0
RSRV Comp. Equipt ODS Mods			10	3.9															10	3.9
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		1.6		3.9		3.0		1.0		1.0		0.0		0.0		0.0		0.0		10.5

Date:

February 2002

MODIFICATION TITLE: Close Combat Tactical Trainer [MOD 4] 1-01-05-0010

MODELS OF SYSTEM AFFECTED: BFVS M2A3

## DESCRIPTION/JUSTIFICATION:

This effort will develop M2A3 and M2A2ODS modification kits for the CCTT M2A2 simulators. The CCTT Simulator is a modular training device designed to support multiple configurations of the BFVS. It currently supports M2A2 and M2A2ODS. These kits will allow training on the M2A3. A total of 78 A3 CCTT kits and 62 ODS kits will be procured.

#### DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Preliminary Design Review NA
Critical Design Review NA
Contractor Test & Evaluation NA
Initial Operational Test & Evaluation NA
IPR Production Decision NA
TDP Available NA

r 1	1	C 1 1	1
ınsta	lation	Sched	uue:

Inputs	
Outputs	

Pr Yr		FY 2	2001		FY	2002			FY 2	2003			FY 2	004			FY 2	2005	
Totals	1	2	3	4	l	2	3 4	1	2	3	4	1	2	3	4	1	2	3	4
								10	10	10	10	10	10	10	10	10	10	10	10
								10	10	10	10	10	10	10	10	10	10	10	10

		FY	2006				FY 20	07			FY	2008			FY	2009			To	Totals
	1	2		3	4	1	2	3	4	1	2	3	3 .	4 1	. 2	2 3	3 4	4	Complete	
Inputs	10	5		3	2															140
Outputs	10	5		3	2															140

METHOD OF IMPLEMENTATION:	Contractor	ADMINISTRATIVE LEADTIME:	10 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2002	FY 2003		FY 2004	

Delivery Date: FY 2002 FY 2003 FY 2004

Date:

February 2002

MODIFICATION TITLE (Cont): Close Combat Tactical Trainer [MOD 4] 1-01-05-0010

FINANCIAL PLAN: (\$ in Millions)

		2000																		
		Prior	FY 2		Т		TOT													
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity																				
Installation Kits - A3			15	4.6	20	4.8	29	7.5	9	2.5	5	1.4							78	20.8
Installation Kits - ODS			62	3.4															62	3.4
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		8.0		4.8		7.5		2.5		1.4		0.0		0.0		0.0		24.2

Exh	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	ate:	I	February 2002		
Appropriation/Budget Act Procurement of W&TCV, Art	-	t vehicles				P-1 Item Nom ABI		TRAINING D	EVICES (GB1	1300)		
Program Elements for Cod	de B Items:			Code:	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	425.2	13.3	8.4	10.4	11.7	12.1	12.9	5.8			29.7	529.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	425.2	13.3	8.4	10.4	11.7	12.1	12.9	5.8			29.7	529.4
Initial Spares	4.6											4.6
Total Proc Cost	429.8	13.3	8.4	10.4	11.7	12.1	12.9	5.8			29.7	534.0
Flyaway U/C												
Wpn Sys Proc U/C												_

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.
- System Enhancement Program (SEP) Integration This funding provides for integration of SEP improvements into the various training devices impacted by those changes on the tank.

These systems support the Legacy transition path of the Transformation Campaign Plan (TCP).

#### Justification:

FY03 procures M1A2 SEP training device improvements into the AGTS and MTS as well as Non-system Integration for the Thru Sight Video (TSV), Multiple Integrated Laser Engagement System (MILES) and Tank Weapon Gunnery Simulation System (TWGSS). Fielding of the M1A2 Main Battle Tank requires concurrent fielding of a training support package. Training on a family of training devices provides cost effective, realistic training on the M1A2 tanks.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/ Procurement of Tracked com	of W&TCV, A				item Nomenclatur TANK TRAINING I	e: DEVICES (GB1300)		Weapon System T	Гуре:	Date: Febru	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
ADV. GNRY. TRNG. SYS. (AGTS)     A AGTS Production     AGTS Gov't Spt.     C. AGTS Non Recurring Cost	A	\$000	Each	\$000	\$000 8424 300	Each 6	\$000 1404	\$000 200	Each	\$000	\$000	Each	\$000
AGTS SUBTOTAL					8724			200					
<ul><li>2. M1A2 MAINT. TRNG. SYS. (MTS)</li><li>a. MTS Production</li><li>b. MTS Gov't Spt.</li><li>c. MTS Non Recurring Cost</li></ul>	A				23			3220 120 90	3	3 1074			
MTS SUBTOTAL					23			3430					
3. A2 NON SYS. INTEGR. KITS (NSI) a. NSI Production b. NSI Gov't Spt. c. NSI Non Recurring Cost	A				350 50			750 50			960 50		
NSI SUBTOTAL					400			800			1010		
<ul><li>4. M1A2 SOFTWARE UPGR. (SWU)</li><li>a. SWU Production</li><li>b. SWU Gov't Spt.</li><li>c. SWU Non Recurring Cost</li></ul>	A				784 50			824 50			896 50		
SWU SUBTOTAL					834			874			946		
5. M1A2 SEP INTEGR (A2SI) a. A2SI Production b. A2SIGov't Spt. c. A2SI Non Recurring Cost	A				400 26			6028 400			9385 720		
A2SI SUBTOTAL					426			6428			10105		
Total					10407			11732			12061		

Exhibit P-5a, Budget Procureme	ent History and Planning							F	ebruary 2	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked combat vehic	ies	Weapon Syste	ет Туре:			em Nomenc NK TRAINING	lature: DEVICES (GB1300)			
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issu Date
1. ADV. GNRY. TRNG. SYS. (AGTS)										
FY 2000	Lockheed Martin Orlando, FL	C-FFP	STRICOM	Dec - 99	Nov - 01			yes	no	n/a
FY 2001	Lockheed Martin Orlando, FL	C-FFP	STRICOM	Jan - 01	Apr - 03			yes	no	n/a
FY 2002	Lockheed Martin Orlando, FL	C-FFP	STRICOM	May - 02	Aor - 04			n/a	n/a	n/a
2. M1A2 MAINT. TRNG. SYS. (MTS)										
FY 2001	Lockheed Martin Orlando, FL	C-FFP	STRICOM	Dec - 99	Oct - 00			n/a	n/a	n/a
FY 2002	Lockheed Martin Orlando, FL	C-FFP	STRICOM	Dec - 01	Oct - 02			yes	no	n/a
3. A2 NON SYS. INTEGR. KITS (NSI)										
FY 2000	Research Triangle Ins. (RTI) Charlotte, N.C.	C-FFP	STRICOM	Mar - 00	Jun - 01			yes	no	n/a
FY 2001	Research Triangle Ins. (RTI) Charlotte, N.C.	C-FFP	STRICOM	Feb - 01	May - 02			yes	no	n/a
FY 2002	Research Triangle Ins. (RTI) Charlotte, N.C.	C-FFP	STRICOM	Feb - 02	May - 03			yes	no	n/a
FY 2003	Research Triangle Ins. (RTI) Charlotte, N.C.	C-FFP	STRICOM	Feb - 03	May - 04			yes	no	n/a
4. M1A2 SOFTWARE UPGR. (SWU)										
FY 2000	Various Various	C-FFP	STRICOM	Mar - 00	Mar - 01			yes	no	n/a
FY 2001	Various Various	C-FFP	STRICOM	Mar - 01	MAR - 02			yes	no	n/a

REMARKS: A2 NON SYSTEM INTEGRATION KITS (#3 Above) provide system unique kits allowing the installation of non-system training devices such as the Thru Sight Video (TSV), Tank Weapon Gun Simulation System (TWGSS), Precision Range Integrated Maneuver Exercise (PRIME) and Multiple Integrated Laser Engagement System (MILES) into the M1A2 tank.

M1A2 Trainer Software upgrades (# 4 above) is not a Training Device in the normal accepted sense of the term; rather it will fund an annual update of M1A2 Training Device software to keep pace with ongoing changes in the M1A2 SEP tank.

Exhibit P-5a, Budget Procure	ement History and Planning							Date: F	ebruary 2	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked combat	vehicles	Weapon Syste	em Type:			em Nomenc NK TRAINING	lature: DEVICES (GB1300			
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Iss Date
FY 2002	Various Various	C-FFP	STRICOM	Mar - 02	MAR - 03			yes	no	n/a
FY 2003	Various Various	C-FFP	STRICOM	Mar - 03	MAR - 04			yes	no	n/a
5. M1A2 SEP INTEGR (A2SI)										
FY 2000	Lockheed Martin Orlando, FL	C-FFP	STRICOM	Feb - 00	Mar - 01			yes	no	n/a
FY 2001	Various Various	C-FFP	STRICOM	Feb - 01	Mar - 02			yes	no	n/a
FY 2002	Various Various	C-FFP	STRICOM	Feb - 02	Mar - 03			yes	no	n/a
FY 2003	Various Various	C-FFP	STRICOM	Feb - 03	Mar - 04			yes	no	n/a

REMARKS: A2 NON SYSTEM INTEGRATION KITS (#3 Above) provide system unique kits allowing the installation of non-system training devices such as the Thru Sight Video (TSV), Tank Weapon Gun Simulation System (TWGSS), Precision Range Integrated Maneuver Exercise (PRIME) and Multiple Integrated Laser Engagement System (MILES) into the M1A2 tank.

M1A2 Trainer Software upgrades (# 4 above) is not a Training Device in the normal accepted sense of the term; rather it will fund an annual update of M1A2 Training Device software to keep pace with ongoing changes in the M1A2 SEP tank.

	FY 99 / 00 BUDGET PR	OD	UCTION	SCH	[EDUL]	E			Item N				NG D	EVIC	ES (C	GB130	00)							Date:			F	ebru	ary 20	002			
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Exhi	ibit P-40	, Budge	t Item J	ustifica	tion She	eet	D	ate:	F	ebruary 2002		
Appropriation/Budget Acti Procurement of W&TCV, Arm	•	t vehicles				P-1 Item Nom INT		ORED VEHICL	E (IAV) FAM	ILY (G85100	)	
Program Elements for Code 06	e B Items: 03653A			Code: C03	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty			7	447	303	332	328	320	288	94		2119
Gross Cost			22.0	928.4	658.0	811.8	980.8	806.7	761.1	816.9	2179.0	7964.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)			22.0	928.4	658.0	811.8	980.8	806.7	761.1	816.9	2179.0	7964.8
Initial Spares												
Total Proc Cost			22.0	928.4	658.0	811.8	980.8	806.7	761.1	816.9	2179.0	7964.8
Flyaway U/C		_								·		·
Wpn Sys Proc U/C			3.1	2.1	2.2	2.4	3.0	2.5	2.6	8.7		

The Brigade Combat Team (BCT), equipped with Interim Armored Vehicles (IAVs) is a full spectrum combat force. It has utility in all operational environments. It will be employed as part of a division. It can be used across the spectrum of military operations. The Brigade Combat Team deploys rapidly and conducts effective combat operations immediately on arrival to prevent, contain, stabilize, or resolve a conflict through shaping and decisive operations. Configurations within the Family of Interim Armored Vehicles (IAVs) are:

Infantry Carrier: The Infantry Carrier Vehicle (ICV) provides protected transport and supporting fires for the infantry squad during dismounted assault. The ICV carries an infantry squad with individual equipment.

Reconnaissance Vehicle: The Reconnaissance Vehicle (RV) provides force situational awareness, gathering and transmitting real time intelligence while moving throughout the battlefield in close, complex, and urban terrain.

Mobile Gun System: The Mobile Gun System (MGS) supports dismounted infantry and engages the enemy in close combat in order to clear opposition and permit rapid movement allowing the force to maintain the initiative, occupy and/or secure key objectives, and defeat strong points.

Mortar Carrier: The Mortar Carrier (MC) will support infantry units with screening obscurants, suppressive forces and on-call supporting fires. 120mm and 81mm mortar carrier variants provide complimentary capabilities with responsive, accurate and lethal indirect fire support to the dismounted infantry assault.

Commander's Vehicle: The Commander's Vehicle (CV) provides the brigade with the means to receive information and data, analyze, prepare and transmit data, and control the forces/functions carrying out combat missions.

Fire Support Vehicle: The Fire Support Vehicle (FSV) provides automated enhanced surveillance, target acquisition, target identification, target tracking, target designation, position location, and communications functionality. Targets will be transmitted instantly to the fire support system and shooter.

Engineer Squad Vehicle: The Engineer Squad Vehicle (ESV) provides maneuver/mobility support capabilities which include obstacle clearing, in-stride breaching of surface mines, proofing of subsurface mines, and smoke generation for local protection.

Exhibit P-40C, Budget Item Justification Sheet				Date: February 2002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /1/Tracked combat vehicles			P-1 Item Nomenclature	INTERIM ARMORED VEHICLE (IAV) FAMILY (G85100)
Program Elements for Code B Items: 0603653A	Code: C03	Other Related P	rogram Elements:	

Medical Evacuation Vehicle: The Medical Evacuation Vehicle (MEV) is the Battalion Aid Station for brigade units, providing treatment for serious injury and advanced trauma cases. Antitank Guided Missile Vehicle: The Antitank Guided Missile Vehicle (ATGM) is the brigade's primary tank killing system. The ATGM reinfores the brigade's infantry battalion, reinforces the brigade reconnaissance squadron, and provides long-range direct fires.

NBC Reconnaissance Vehicle: The Nuclear, Biological, Chemical Reconnaissance Vehicle (NBCRV) provides on the move and remote near-real-time nuclear, biological and checmical detection and surveillance to supply battlefield visualization of NBC hazards.

This system supports the Interim transition path of the Transformation Campaign Plan (TCP).

#### Justification:

FY03 funds support the procurement of the third of six Brigade Combat Teams (BCT) equipped with Interim Armored Vehicles. An immediate need exists for an Interim Armored Vehicle (IAV) equipped C-130 transportable Brigade Combat Team (BCT), capable of deployment to anywhere on the globe in a combat ready configuration. A dynamic asymmetric threat and operational environment demands full spectrum, strategically responsive, agile and dominant land forces. Immediate response by a lethal, versatile, tactically agile joint force capable of operational maneuver once in the Area of Operations is essential to fulfilling the Warfighting needs of the National Command Authority. The IAV-equipped BCT is this force. The use of a common platform/common chassis design reduces requirements for repair parts and logistics support in the area of operations.

Production Ready IAV's and Fire Support Vehicles: Production Verification Test: Apr 02 - Apr 03 Live Fire Test & Evaluation: Apr 02 - Jun 03

Initial Operational Test & Evaluation: Mar 03 - Nov 04

NBC Reconnaissance Vehicle:

Live Fire Test & Evaluation: Oct 04 - Apr 05 Production Verification Test: Sep 04 - Jun 04 Production Qualification Test: Jan 03 - Nov 03 Initial Operational Test & Evaluation: 2Q05 - 3Q05

Mobile Gun System:

Production Qualification Test: Oct 02 - Feb 04 Live Fire Test & Evaluation: Mar 04 - Oct 04 Production Verification Test: Jun 04 - Nov 04 Initial Operational Test & Evaluation: 1Q05 - 2Q05

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/I Procurement of Tracked comb	of W&TCV, A				tem Nomenclature ARMORED VEHICL			Weapon System T	Гуре:	Date: Februa	ry 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Interim Armored Vehicles													
-Infantry Carrier Vehicle (ICV)					238419	166	1436	132990	91	1462	160557	114	1409
-ICV Block Improvements					90414		1210	69400	£ 1	1242	28190 66799	51	1310
-Reconnaissance Vehicle (RV) -RV Block Improvements					80414	66	1219	68490	51	1343	12975	31	1310
-Anti-Tank Guided Missile Vehicle (ATGM)					122024	51	2393	89769	37	2427	12973		
-ATGM Block Improvements					122024	31	2393	89709	31	2427			
-Mortar Carrier (MC)					77429	51	1519	55992	38	1474	53297	38	1403
-MC Block Improvements					77427	31	1317	33772	30	1474	7561	30	1403
-Fire Support Vehicle (FSV)					33593	24	1400	19373	14	1384	18509	14	1323
-FSV Block Improvements					33075		1.00	1,0,0		150.	2468	• •	1020
-Engineer Squad Vehicle (ESV)					53643	22	2439	26059	10	2606	25370	10	2537
-ESV Block Improvements											224		
-Commander's Vehicle (CV)					54751	40	1369	42621	28	1523	76315	52	1468
-CV Block Improvements											4822		
-Medical Evacuation Vehicle (MEV)					35595	27	1319	26079	17	1535	22403	18	1245
-MEV Block Improvments											358		
-NBC Reconnaissance Vehicle (NBCRV)								36023	17	2119	8175	4	2044
-NBCRV Block Improvements											89		
-Mobile Gun System (MGS)					11003						109126	31	3521
-MGS Block Improvements													
Interim Armored Vehicles Total					706871			497396			597238		
Government Furnished Equipment/ASIOE					33167			7044			17686		
Long Range Adv Scout Surveillance Sys					49899			7011			19348		
M707 Striker Mission Equipment Package					9945						10877		
Lightweight Laser Designator/Rangefinder					14220						4677		
Engineering Change Proposal (ECP)					5588			10924			13983		
Basic Issue Items (BII)					3451			2383			2627		
Production Verification Test					34			16375			21427		
Refurbishment of Test Vehicles								9247			10336		
Program Management Support (Govt)					24931			27154			28786		
System Fielding Support					51702			58803			52478		
Block Improvement Retrofit (Bde 1 & 2)													
Initial Spares					10000			3809			1630		
Training Devices					6800			15855			13272		
System Technical Support (STS)													
Post Deployment Software Support (PDSS)					2574			<b>5000</b>			6466 5000		
Integrated Data Environment					3654			5000			5000		

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/l Procurement of Tracked comb	of W&TCV, A	rity/Serial No. rmy / 1 /		P-1 Line I INTERIM	tem Nomenclaturo ARMORED VEHICI	e: LE (IAV) FAMILY (	(G85100)	Weapon System	Гуре:	Date: Febru	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
Award Fee Unscheduled Modifications Pre-Planned Product Improvements (P3I) Tow Bunker Buster Facilitization Mounted Mortar		\$000	Units	\$000	\$000 5693 1250 1222	Units	\$000	\$000	Units	\$000	\$000 6000	Units	\$000
Total					928427			657990			811831		

Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked combat vehicle	s	Weapon Syste	т Туре:			em Nomenc MORED VEHIC	lature: LE (IAV) FAMILY (	(G85100		
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Iss Date
Interim Armored Vehicles										
FY 2001	GM GDLS Defense Group L.L.C. Shelby Township, MI	C/FFP(5-1)	TACOM	Nov 00	Feb 02	364	1558	NA	NA	Apr 0
FY 2001	GM GDLS Defense Group L.L.C. Shelby Township, MI	C/FFP(5-1)	TACOM	Jun 01	Aug 02	36	1728	NA	NA	
FY 2001	GM GDLS Defense Group L.L.C. Shelby Township, MI	C/FFP(5-1)	TACOM	Aug 01	Aug 02	47	1418	NA	NA	
FY 2002	GM GDLS Defense Group L.L.C. Shelby Township, MI	C/FFP(5-2)	TACOM	<b>M</b> ar 02	Feb 03	303	1642	NA	NA	
FY 2003	GM GDLS Defense Group L.L.C. Shelby Township, MI	C/FFP(5-3)	TACOM	Mar 03	Feb 04	332	1628	NA	NA	
Long Range Adv Scout Surveillance Sys										
FY 2001	Raytheon Company McKinney, TX	C/FFP(5-2)	CECOM	Apr 01	Jun 02	69	379	Yes	NA	
FY 2002	Raytheon Company McKinney, TX	C/FFP(5-3)	CECOM	Jan 02	Feb 03	51	387	Yes	NA	
FY 2003	Raytheon Company McKinney, TX	C/FFP(5-4)	CECOM	Dec 02	Mar 04	51	361	Yes	NA	
M707 Striker Mission Equipment Package										ı
FY 2001	Systems & Electronics, Inc. St., Louis, MO	SS/FFP	TACOM	Sep 01	Apr 02	24	122	NA	NA	
FY 2002	Systems & Electronics, Inc. St., Louis, MO	SS/FFP	TACOM	Oct 01	Dec 02	14	122	NA	NA	
FY 2003	Systems & Electronics, Inc. St,. Louis, MO	SS/FFP	TACOM	Dec 02	Dec 03	14	175	NA	NA	
Lightweight Laser Designator/Rangefinder										

REMARKS: Unit cost for Interim Armored Vehicles is an average of all IAV configurations procured on delivery orders issued during the respective fiscal year.

FY03 IAV unit costs do not include Block Improvement costs.

Dates of First Delivery of LRAS, M707 MEP, and LLDR shown are contractual delivery dates. Assets will be diverted from production schedule to meet PM-BCT IAV requirements.

Exhibit P-5a, Budget Proce	urement History and Planning							Date: F	February 2	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked con	nbat vehicles	Weapon Syste	em Type:			tem Nomeno MORED VEHIO	clature: CLE (IAV) FAMILY	(G85100)		
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Iss Date
FY 2001	Northrup Grumman Apopka, FL	SS/FFP	CECOM	Oct 01	Jan 03	30	270	YES	NA	Aug (
FY 2002	Northrup Grumman Apopka, FL	SS/FFP	CECOM	Oct 01	Jan 03	14	270	YES		
FY 2003	Northrup Grumman Apopka, FL	SS/FFP(5-1	CECOM	Jan 03	Feb 04	14	259	YES		

REMARKS: Unit cost for Interim Armored Vehicles is an average of all IAV configurations procured on delivery orders issued during the respective fiscal year.

FY03 IAV unit costs do not include Block Improvement costs.

Dates of First Delivery of LRAS, M707 MEP, and LLDR shown are contractual delivery dates. Assets will be diverted from production schedule to meet PM-BCT IAV requirements.

	FY 02 / 03 BUDGET PI	ROD	UCTION	SCH	IEDUL	E					nclatuı IOREI		HICL	E (IA	V) F	AMIL	.Y (C	8510	0)					Date	:		I	Febri	uary 2	2002			
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Ext	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	D	ate:	I	February 2002		
Appropriation/Budget Ac Procurement of W&TCV, Ar		t vehicles				P-1 Item Nom CAF	enclature RRIER, MOD	O (GB1930)				
Program Elements for Co	de B Items:			Code:	Other Relat	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	747.8	55.0	62.8	54.2	48.2	60.3						1028.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	747.8	55.0	62.8	54.2	48.2	60.3						1028.4
Initial Spares	3.5											3.5
Total Proc Cost	751.3	55.0	62.8	54.2	48.2	60.3						1031.9
Flyaway U/C												
Wpn Sys Proc U/C												

The M113 Family of Vehicles (FOV) consists of over 16,000 vehicles, 16 different variants/platforms in service in U.S. Army units. The M113 FOV is approximately 40% 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 highlighted the need to improve the mobility and survivability, chemical protection, driver's night vision, fuel system, and Command Post Auxiliary Power Units for the fleet. The current fleet requirement for the M113 FOV is 14,273. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

### **Justification:**

BLOCK 1 (A3) MODIFICATION: FY03 completes improvements to enhance mobility and crew survivability. Included is a new 275 horsepower turbocharged engine coupled with a new transmission. This power train replaces less reliable components and results in reduced Operations and Support costs while increasing mobility to keep up with the M1 Abrams and Bradley Fighting Vehicle System fleet. Internal spall suppression liners, external armored fuel tanks and external armor mounting provisions increase crew survivability. Vehicle conversion to the A3 configuration will be done, in Department of the Army Unit Set Fielding Priority sequence, at depot or contractor facility.

T150 TRACK: FY03 procures the T150 track to improve reliability and system safety while reducing O&S costs for track, the number 2 system cost driver. The T150 is a double pin, reversible track with increased life characteristics. The M113 fleet currently utilizes the T130 track, which provides limited life between track replacements. The T150 track provides multiple times the track life of T130 track. Increased track life equates to a substantial reduction in the Operations & Support(O&S) for the M113 FOV.

Exhibit P-40M,	Budget Item Justific	ation Sheet				Dat	e:	Fe	ebruary 2002		
Appropriation/Budget Active Procurement of W&TCV	ity/Serial No: , Army /1/Tracked combat vehicles				P-1 Item Nomeno	elature	CARRIER, M	OD (GB1930)			
Program Elements for Code	B Items:		Code:	Other Related F	rogram Elements:						
Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Prior Year Closed Modifi	ications										
0-00-00-0000		384.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	384.1
Crew Chemical Protection	n										
1-191-05-4311	Oper Capability	5.4	0.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	6.9
Driver's Night Viewer											
1-94-05-4463	Oper Capability	5.2	1.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	7.6
Block I											
1-84-05-4026	Oper Capability	471.0	52.3	46.5	14.9	0.0	0.0	0.0	0.0	0.0	584.7
T-150 TRACK											
0-00-00-0000	Oper Capability	0.0	0.0	0.0	45.4	0.0	0.0	0.0	0.0	0.0	45.4
Totals		865.7	54.4	48.3	60.3	0.0	0.0	0.0	0.0	0.0	1028.7

								INDIV	DUAL M	ODIFIC	ATION				Date:		February 2	2002		
MODIFICATION TITLE:	Prior Yea	ar Closed	Modifica	tions [MC	OD 1] 0-0	0-00-000	0													
MODELS OF SYSTEM A	FFECTEI	D:																		
AODIFICATION TITLE: Prior Year Closed Modifications [MOD 1] 0-00-0-0000  AODIELS OF SYSTEM AFFECTED:  DESCRIPTION/JUSTIFICATION:  DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																				
MODIFICATION TITLE:   Prior Year Closed Modifications   MOD 1   0-00-00-0000																				
	STATE   Prior Year Closed Modifications   MOD 1   0-00-00-0000																			
	SECRIPTION/JUSTIFICATION:																			
	EVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																			
	VELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																			
DEVELOPMENT STATU	S/MAJOF	R DEVEL	.OPMEN	T MILES'	TONES:															
	EVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																			
	stallation Schedule:																			
Installation Schedule:																				
		1			4	1			4	1			4	_					05	4
Inputs	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1 2	2 3	4	1	2	3	4
Outputs																				
			•001				• • • •			-			_							
	1	FY:		4	1	FY 2	2007	4	1	FY 2	2008	4	1 1	Y 2009	. 4		To Complete			Totals
Inputs	1	2	3		•		3		•	2	3		-				compiete			0
Outputs																				
METHOD OF IMPLEMED Contract Dates:	NTATION		FY 2002			ADMINI		VE LEAD FY 2003			0 Months	;	PROD FY 20	UCTION I 14	EADTIM	IE:	0 Months			
Delivery Date:			FY 2002					FY 2003					FY 20							

MODIFICATION TITLE (Cont): Prior Year Closed Modifications [MOD 1] 0-00-00-0000

	and	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY :	2006	FY:	2007	Т	'C	TO	ΓAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity																				
Installation Kits		384.1																		384.1
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 – Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		384.1		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		384.1

# MODIFICATION TITLE: Crew Chemical Protection [MOD 2] 1-191-05-4311 MODELS OF SYSTEM AFFECTED: M113 Family of Vehicles DESCRIPTION/JUSTIFICATION: FY03 procures the complete M8, M13 or M14 Nuclear, Biological and Chemical (NBC) System tailored for installation into each M113 variant. The installed system includes mounting provisions, blowers, filters, and air line heaters and hoses for use with crew issued ventilated face masks. The installed system permits vehicle operation in an NBC environment. Installation will occur during vehicle conversions to the A3 configuration.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Updated TDP Available March 99

Installation Schedule:																					
	Pr Yr		FY 2	2001			FY	2002			FY	2003			FY	2004			FY	2005	
	Totals	1	2	3	4	1	2	3	4	1	2	3	3	4 1	. 2	2	3	4 1	. 2		3 4
Inputs	201	57	57	57	58	42	42	42	41												
Outputs		54	54	54	55	47	47	49	49	47	47	4′	7 4	<b>∤</b> 7							
		FY:	2006			FY 2	2007			FY 2	2008			FY	2009			То			Totals
	1	2	3	4	1	2	3	4	1	2	3	۷	4	1 2	2 3	3	4	Complete			
Inputs																					597
Outputs																					597
METHOD OF IMPLEME	NTATION	N:	Depot/Co	ntractor		ADMINI	STRATI	VE LEAD	TIME:		3 Month	3		PRODU	CTION I	LEADTI	ME:	9 Month	s		
Contract Dates:			FY 2002	Ja	ın 02			FY 2003						FY 2004							
Delivery Date:			FY 2002	O	ct 02			FY 2003						FY 2004							

Date:

February 2002

MODIFICATION TITLE (Cont): Crew Chemical Protection [MOD 2] 1-191-05-4311

	FY:	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY:	2006	FY 2	2007	Т	C	TOT	`AL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	201		229		167														597	
Installation Kits		1.1		0.7		0.6														2.4
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders		4.2																		4.2
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits	201	0.1																	201	0.1
FY 2001 Kits			229	0.1															229	0.1
FY 2002 Equip Kits					167	0.1													167	0.1
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment	201	0.1	229	0.1	167	0.1		0.0		0.0		0.0		0.0		0.0		0.0	597	0.3
Total Procurement Cost		5.4		0.8		0.7		0.0		0.0		0.0		0.0		0.0		0.0		6.9

								INDIVID	OUAL MO	ODIFICA'	TION				I	Date:		February 2	002		
MODIFICATION TITLE: D	river's Ni	ght View	er [MOD	3] 1-94-	05-4463																
MODELS OF SYSTEM AFF	FECTED:	M113 Fa	amily of V	Vehicles																	
DESCRIPTION/JUSTIFICAT	TION:																				
DRIVER'S NIGHT VII M113 Family of Vehicl darkness and low visibi configuration.	les (FO	V) has Î	imited 1	night vi	ision. T	he AN/	VVS-2(	(V)1A d	lriver's 1	night vie	wer enl	hances	operatio	nal cap	pability l	by prov	iding ca	apability	for travel	ing in	he
DEVELOPMENT STATUS/N	MAJOR I	DEVELO!	PMENT 1	MILEST	ONES:																
TDP Available	Septe	mber 94	ļ																		
Installation Schedule:																					
	Pr Yr		FY 20	01			FY 20	002			FY 20	003			FY 2	004			FY 200:	5	
7	Γotals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	987	57	57	57	58	42	42	42	41												
Outputs	767	59	59	59	59	47	47	49	49	47	47	47	47								
Г																					
		FY 20	06			FY 20	007			FY 20	08			FY 2	2009			To		7	Γotals

Contract Dates: Delivery Date:

METHOD OF IMPLEMENTATION:

Depot/contractor

Jan 02

Oct 02

FY 2002

FY 2002

Inputs Outputs

3 Months

ADMINISTRATIVE LEADTIME:

FY 2003

FY 2003

9 Months

PRODUCTION LEADTIME:

FY 2004

FY 2004

1383

1383

Date:

February 2002

MODIFICATION TITLE (Cont): Driver's Night Viewer [MOD 3] 1-94-05-4463

	FY	2000																		
	and	Prior	FY:	2001	FY:	2002	FY 2	2003	FY:	2004	FY 2	2005	FY:	2006	FY :	2007	Т	'C	ТОТ	ΓAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	987		229		167														1383	
Installation Kits		4.1		1.2		1.0														6.3
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits	987	1.1																	987	1.1
FY 2001 Kits			229	0.1															229	0.1
FY 2002 Equip Kits					167	0.1													167	0.1
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment	987	1.1	229	0.1	167	0.1		0.0		0.0		0.0		0.0		0.0		0.0	1383	1.3
Total Procurement Cost		5.2		1.3		1.1		0.0		0.0		0.0		0.0		0.0		0.0		7.6
													•		_					

MODIFICATION TITLE: Block I [MOD 4] 1-84-05-4026

MODELS OF SYSTEM AFFECTED: M113 Family of Vehicles

#### DESCRIPTION/JUSTIFICATION:

FY03 completes improvements to the M113A2 Family of Vehicles to enhance mobility and crew survivability. Included is a new 275 horsepower turbocharged engine coupled with a new transmission. This power train replaces less reliable components and results in reduced Operations and Support costs while increasing mobility to keep up with the M1 Abrams and Bradley Fighting Vehicle System fleet. Internal spall suppression liners, external armored fuel tanks and external armor mounting provisions increase crew survivability. Vehicle conversion to the A3 configuration will be done, in Department of the Army Unit Set Fielding Priority sequence, at depot or contractor facility.

## DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

IPR Production Decision May 86 TDP Available June 86

Installation Schedule	:
-----------------------	---

Inputs Outputs

Inputs

Pr Yr		FY 2	2001			FY 2	2002			FY 2	2003			FY	2004			FY	2005	
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1790	57	57	57	58	42	42	42	41												
1570	59	59	59	59	47	47	49	49	47	47	47	47								

	FY 2	2006			FY :	2007			FY 2	2008			FY 2	2009		То	Totals
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
																	2186
																	2186

Outputs METHOD OF IMPLEMENTATION: Depot/Contractor ADMINISTRATIVE LEADTIME: PRODUCTION LEADTIME: 3 Months 8 Months Contract Dates: FY 2002 Feb02 FY 2003 FY 2004 FY 2002 FY 2003 Delivery Date: Oct 02 FY 2004

Date:

February 2002

MODIFICATION TITLE (Cont): Block I [MOD 4] 1-84-05-4026

	FY:	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	Т	C	ТОТ	`AL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	2967		229		167														3363	
Installation Kits		332.1		30.9		25.1														388.1
Installation Kits, Nonrecurring																				
Equipment		3.5																		3.5
Data		42.9																		42.9
PM Support (Govt)		5.7		2.1		3.0		7.6												18.4
System Technical Support (Ctr)		8.1		1.0		2.0		5.9												17.0
Other		5.0																		5.0
Pre Conversion/Modification		27.4		11.0		9.4														47.8
FDT		1.8		0.8		0.7		0.7												4.0
TPF		5.4		1.1		1.0		0.7												8.2
Installation of Hardware																				
FY 2000 & Prior Equip Kits	1790	39.1																	1790	39.1
FY 2001 Kits			229	5.4															229	5.4
FY 2002 Equip Kits					167	5.3													167	5.3
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment	1790	39.1	229	5.4	167	5.3		0.0		0.0		0.0		0.0		0.0		0.0	2186	49.8
Total Procurement Cost		471.0		52.3		46.5		14.9		0.0		0.0		0.0		0.0		0.0		584.7

								INDIVID	UAL MO	DIFIC	ATION				Da	ate:	Fe	ebruary 20	002		
MODIFICATION TITLE	: T-150 TRA	.CK [MO	D 5] 0-00-	-00-0000																	
MODELS OF SYSTEM A	AFFECTED:	M113 F0	OV																		
DESCRIPTION/JUSTIFIC	CATION:																				
T150 TRACK: FY0 pin, reversible track provides multiple tir	with increa	ased life	e charact	teristics.	. The M	1113 fle	et curr	ently uti	lizes th	e T130	track, wl	nich pro	vides li	mited li	fe betw	een tra	ck replac	cements	s. The T		
DEVELOPMENT STATE	JS/MAJOR I June 02	DEVELOI	PMENT M	IILESTO!	NES:																
Lea II Con Chail																					
Installation Schedule:	Pr Yr		FY 200	)1			FY 2	002			FY 200	)3			FY 200	04	$\overline{}$		FY 200	05	
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs Outputs	Totals						_			-	_		188 94	282 188	282 282	282 282	282 282	282 282	287 282	194 287	100
				<del></del>																	
	1	FY 200	3	4	1	FY 20	07 3	4	1	FY 2	2008	4	1	FY 200	)9 3	4	C	To			Totals
Inputs	1	Z	3	4	1	2	3	4	1	Z	3	4	1	2	3	4	Con	mplete			2079
Outputs																					2079
METHOD OF IMPLEME Contract Dates:	ENTATION:		ontractor F Y 2002	ield Team	ı Al	DMINIST		E LEADT Y 2003	IME: Jan 0		3 Months			RODUCT Y 2004	ION LEA	DTIME	: 81	Months			
Delivery Date:		FY	Y 2002				F	Y 2003	Aug(	)3			F	Y 2004							

Date:

February 2002

MODIFICATION TITLE (Cont): T-150 TRACK [MOD 5] 0-00-00-0000

	FY	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY:	2004	FY 2	2005	FY:	2006	FY	2007	Т	'C	TOT	ΓAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity							2079	44.6											2079	44.6
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 - Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits							2079	0.8											2079	0.8
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0	2079	0.8		0.0		0.0		0.0		0.0		0.0	2079	0.8
Total Procurement Cost		0.0		0.0		0.0		45.4		0.0		0.0		0.0		0.0		0.0		45.4

Exl	nibit P-40	, Budge	t Item J	ustifica	tion Sho	eet	Γ	Oate:	I	February 2002		
Appropriation/Budget Ac Procurement of W&TCV, An		t vehicles				P-1 Item Nom FIS		(MOD) (GZ230	0)			
Program Elements for Co	ode B Items: 0203735A			Code: B	Other Relat	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	19	27	55		6	25						132
Gross Cost	349.2	26.5	28.1	31.6	6.7	7.0						449.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	349.2	26.5	28.1	31.6	6.7	7.0						449.1
Initial Spares	38.8											38.8
Total Proc Cost	388.0	26.5	28.1	31.6	6.7	7.0						487.9
Flyaway U/C												
Wpn Sys Proc U/C		1.0	0.5		1.1	0.3	·					·

The Bradley Fire Support Vehicle (BFIST) consists of two variants: M7 BFIST and A3 BFIST. BFIST replaces the aging M981 Fire Support Vehicle for fire support 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's in the maneuver units it supports. The M7 variant integrates a fire support mission equipment pacakage (MEP) onto an Operation Desert Storm (ODS) variant chassis. Production of the M7 variant ended in FY01. The A3 BFIST takes advantage of Bradley A3 technology and capability advancements to imbed much of the fire support MEP; what is not imbedded is added as an engineering change proposal (ECP) to the chassis. A3 BFIST procurement begins in FY02 for a quantity to support the 4th Infantry Division. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

#### **Justification:**

FY03 procures 25 BFIST vehicles, which provides synchronization of combined arms operations. The current fire support vehicle, M981, was unable to maintain the operational tempo of Bradley/Abrams equipped maneuver forces during Operation Desert Storm (ODS).

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/E Procurement of Tracked comb	f W&TCV, A				tem Nomenclature CLE (MOD) (GZ230			Weapon System	Гуре:	Date: Februa	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	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
Hardware Cost 1. Vehicle Upgrade 2. M7 Mission Equipment Package (MEP) 3. Pre-Mod Depot Maintenance					6166 2034 9760	29 29	71 337	498	6	83	2109	25	85
SUBTOTAL					17960			498			2109		
Non Recurring Production 4. Engineering Production 5. Engineering Government 6. Program Management Administration 7. Reimbursable Matrix Support 8. Fielding 9. Test & Evaluation 10. Support Equipment  SUBTOTAL					2163 2943 335 757 6176 550 722 <b>13646</b>			2238 460 410 2253 879 <b>6240</b>			1273 401 492 547 2144 <b>4857</b>		
Total					31606			6738			6966		

Exhibit P-5a, Budget Procurement	History and Planning							Date: F	ebruary 2	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked combat vehicles		Weapon Syste	ет Туре:		P-1 Line Ito					
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. Vehicle Upgrade FY 2002 FY 2003 2. M7 Mission Equipment Package (MEP) FY 2001	UDLP, York PA UDLP, York PA SEI, Sanford FL	SS/FFP SS/FFP SS/FFP	USATACOM, Warren, MI USATACOM, Warren, MI USATACOM, Warren, MI	Apr-02 Apr-03 Jan-01	Apr-04 Jul-04 Oct-01	6 25 29	83 85 71			
REMARKS:										

1 FY 02 (A3) A 6 0 6 0 6 0 6 0 6 0 6 0 6 0 6 0 0 6 0 0 6 0		FY 00 / 01 BUDGET P	ROL	UCTION	SCE	IEDUL	E			Item N ΓVEH				Z230	0)									]	Date:			Feb	ruary	2002			
													Fis	scal Y	Zear (										F								_
Simple black   S				EV	S	PROC	ACCEP	BAL	_																	_	_						Α
		COST ELEMENTS		FI	R		TO	AS OF	O C T	N O V	E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	E C	J A N	E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
	1.	Vehicle Upgrade																									┢						
		10	1	FY 00 (M7)	A	55	0	55											A												П	2	53
			1	FY 02 (A3)	Α		0	6																									6
Name			1	FY 03 (A3)	A	25	0	25																									25
Name																																	
Name																															Ш		
Name																															Ш		
Name																	_										$\perp$				Ш		
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Name																	$\dashv$										-				$\vdash$		
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Name	_									$\vdash$		$\vdash$	_			_	$\dashv$							_		$\vdash$	┢			$\vdash$	$\vdash \vdash$		
Name	То	40]				9.6		96		$\vdash$		$\vdash$	_				$\dashv$							_		$\vdash$	┢			$\vdash$	$\vdash \vdash$	2	0.4
NAME	10	nai				80		80				$\vdash$					_														$\vdash$	_	64
This image													F						A	S	0		D	J	F				J		A		
F         NAME/LOCATION         MIN.         1-8-5         MAX.         DHAME/LOCATION         Prior 1 Oct         After 1 Oct									T	V		A N	B B			A Y			G	E P	T	V	E C	A N	B B	A R	R	A Y	N		G		
R         NAME/LOCATION         MIN.         1.8-5         MAX.         D+ $1$ INITIAL         0         3         17         20           1         UDLP, York PA         1.00         2.00         4.00         0 $1$ EORDER         0         2         14         16           2         PARTICULAR INTITIAL         PARTICULAR INTITIAL         PARTICULAR INTITIAL         INITIAL         0         0         2         14         16           3         PARTICULAR INTITIAL INTITIAL         PARTICULAR INTITIAL	M			PR	ODUCT	ON RATES			М	FR						ADM	IINLE	AD T	IME			MFR		,	TOTA	.L	R	EMAR	KS				
1         UDLP, York PA         1.00         2.00         4.00         0         1         REORDER         0         2         14         16           2         1.00         2.00         4.00         0         1         INITIAL         8         1         1         1         1           3         1.00         2.00         4.00         0         2         1         4         1         1           4         1.00         1.00         2.00         4.00         0         2         1         4         1	F								Nui	mber					Pri		ct	Ai	fter 1 C	Oct	Af		Oct	A		Oct	4						
1         UDLP, York PA         1.00         2.00         4.00         0         REORDER         0         2         14         16           2         INITIAL         INITIAL         REORDER         0										1																	4						
REORDER	1	UDLP, York PA		1.00		2.00	4.00	0		-						0			2			14			16		4						
Note									1																		4						
REORDER	_																										-						
Second Control Contr	_								1	ŀ			_											_			1						
REORDER   REORDE																											1						
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	FY 02 / 03 BUDGET P	ROD	UCTION	SCE	IEDUL	E			Item N VEH				Z230	0)									]	Date:			Feb	ruary :	2002			
												Fis	scal Y	ear 0										F		Year						
		.,	F37	S	PROC	ACCEP	BAL									endar							_		_	_		ear 0				L A
	COST ELEMENTS	M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
1.	Vehicle Upgrade																									┢						
		1	FY 00 (M7)	A	55	2	53	3	5	5	4	4	5	5	5	5	5	5	2													0
		1	FY 02 (A3)	A	6	0	6							Α																		6
		1	FY 03 (A3)	A	25	0	25																			A						25
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								C T	O V	E C	A N	E B	A R	P R		U N	U L	U G	E P	C T	O V	C	A N	E B	A R	P R	A Y	U N	U L		E P	
M			PR	ODUCT	ON RATES			М	FR						ADM	4INLE	EAD T	IME			MFR			ТОТА	L	R	EMAR	KS				
F							REACHED	Nur	nber					Pri	or 1 O	ct	A	fter 1 (	Oct	A	fter 1 (	Oct	A	fter 1 (	Oct							
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+		, [	INIT					0			3			17			20		4						
1	UDLP, York PA		1.00		2.00	4.00	0				RDER				0			2			14			16		1						
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	FY 04 / 05 BUDGET PR	ROD	UCTION	SCH	IEDUL	E					nclatur E (MOI		Z230	0)									1	Date:			Fel	oruar	y 200	2		
												Fis	cal Y	ear 0	)4									F	iscal	Year	r 05					
				S E	PROC	ACCEP	BAL									endaı	r Yea								_	_	ndar		_			L A
	COST ELEMENTS	M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
1	Vehicle Upgrade												_												+	┿	+		╀			
-	- tancer eps-ac-	1	FY 00 (M7)	A	55	55	0																		T	T		+	T			0
			FY 02 (A3)	A	6	0	6	_						2	2	2										T			+			0
			FY 03 (A3)	A	25	0	25							_	_		2	2	2	2	2 2	2 2	2	2 2	2 :	2 :	2	2	3			0
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To	4-1				86	55	31						_	2	2	2	2	2		_	, 2	, ,	2	2 2	2 1	, ,	2	2	2	+	+	
То	tai				80	55	31						_	2		2				4	_								3			+-
								0	N	D	J	F	M	A	M	J	J	A	S E	0	N	D E	J	F								
								C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L		E P	
M			PRO	ODUCTI	ON RATES			M	FR						ADN	4INLE	EAD T	IME			MFR			TOTA	ΛL	R	REMA	RKS				
F							REACHED	Nur	nber			,	[	Pri	or 1 O	ct	A	fter 1	Oct	A	fter 1 (	Oct	Α	fter 1		4						
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+		1	INIT			_		0			3			17			20		4						
1	UDLP, York PA		1.00		2.00	4.00	0		-		RDER		_		0			2			14			16		4						
								-		INIT		_	-										$\vdash$			4						
											RDER		-													4						
								l		INIT	RDER	$\dashv$	$\dashv$													+						
										INIT			-													1						
								l			RDER	$\dashv$	$\dashv$													1						
										INIT			_													1						
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Exhi	bit P-40	, Budge	t Item J	ustifica	tion Sho	eet	D	ate:	I	February 2002				
Exhibit P-40, Budget Item Justification Sheet         Date: Speniary 2002           Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army/I/Tracked combat vehicles         P-1 Item Nom-clature MOD FIN-SVC EQUIP, FIST VEHICLE (GZ2320)           Program Elements for Code B Items:         Code:         Other Related Program Elements:           Program Elements for Years         FY 1999         FY 2000         FY 2002         FY 2003         FY 2005         FY 2006         FY 2007         To Complete         Total           Program Elements for Code B Items:         FY 1999         FY 2000         FY 2003         FY 2005         FY 2006         FY 2007         To Complete         Total           Proc Qty         Image: Sequence of the Sequence of														
Program Elements for Code	B Items:			Code:	Other Relat	ed Program El	ements:							
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog		
Proc Qty														
Gross Cost						0.7	0.7	0.7				2.1		
Less PY Adv Proc														
Plus CY Adv Proc														
Net Proc (P-1)						0.7	0.7	0.7				2.1		
Initial Spares														
Total Proc Cost						0.7	0.7	0.7				2.1		
Flyaway U/C														
Wpn Sys Proc U/C				·										

The BFIST Mod-In-Service line provides funding for life cycle software support to include evolutionary hardware changes for the BFIST program. These hardware changes inlcude those due to the replacement of the LCU due to obsolescence. The system supports the Legacy transition p ath of the Transformation Campaign Plan (TCP).

### Justification:

FY03 procures hardware changes as well as logistic changes to support the new digital communications platform and accommodates the integration of the Versatille Computer Unit (VCU) onto the BFIST. The Mod-In-Service line provides program flexibility to incorporate minor hardware and software changes to the BFIST without changing production quantities. A change in the digital communications sytems from the LCU to the VCU is anticipated in FY02.

Exl	hibit P-40	, Budge	t Item J	ustifica	tion Sho	eet	Da	te:	F	ebruary 2002		
Appropriation/Budget Ac Procurement of W&TCV, A	-	t vehicles				P-1 Item Nom BFV		IOD) (GZ2400	)			
Program Elements for Co	ode B Items:			Code: L	Other Relat	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	856.2	73.9	30.2	64.3	54.3	35.0	30.7	57.8	48.2	46.8	122.8	1420.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	856.2	73.9	30.2	64.3	54.3	35.0	30.7	57.8	48.2	46.8	122.8	1420.1
Initial Spares												
Total Proc Cost	856.2	73.9	30.2	64.3	54.3	35.0	30.7	57.8	48.2	46.8	122.8	1420.1
Flyaway U/C												
Wpn Sys Proc U/C												

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 four Engineer Change Proposals (ECPs) which will correct deficiencies identified in Operation Desert Storm and include: Laser Range Finder, Position Navigation System, Equipment Restow Improvement, and Drivers Vision Enhancement. Operational improvements are the Vehicle Intercommunications System, the Digital Electronic Control Assembly, and Armor Tiles. The A2 ODS Applique modification will integrate Bradley Fighting Vehicles with the Army's Applique computer system to improve situational awareness. The Battlefield Combat Identification System will provide positive identification of friendly ground vehicles to minimize battlefield fratricide. The High Priority Improvement Mod reflects evolutionary improvements to the Bradley A3 vehicle. It includes enhanced Turret Processor Unit, vehicle automated diagnostics, integrated driver's vision system, improved vehicle core electronics and improved vehicle mobility. Most of these modifications will be applied concurrently in "blocks" to reduce application cost and inconvenience to the unit. The Bradley supports the Legacy transition path of the Transformation Campaign Plan (TCP).

#### Justification:

FY03 procures A2 ODS Applique and High Priority Improvement modifications. These modifications will continue to meet requirements identified to correct deficiencies 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 Justific	ation Sheet				Dat	e:	Fe	ebruary 2002		
Appropriation/Budget Acti Procurement of W&TCV	vity/Serial No: V, Army /1/Tracked combat vehicles				P-1 Item Nomeno	lature	BFVS SERIES	S (MOD) (GZ2400	)		
Program Elements for Code	e B Items:		Code: L	Other Related l	Program Elements:						
Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
A2 ODS Mods											
1-92-05-4404	Oper. Capability	169.2	8.5	7.6	0.0	0.0	0.0	0.0	0.0	0.0	185.3
A2 ODS Applique											
1-98-05-4539	Oper. Capability	12.4	16.7	10.6	5.5	2.3	0.0	0.0	0.0	0.0	47.5
Battlefield Combat Iden	tification System										
01-98-05-4546	Oper. Capability	1.9	3.9	3.3	0.0	0.0	0.0	0.0	0.0	0.0	9.1
Armor tiles											
1-84-05-4038	Oper. Capability	112.8	20.1	17.0	0.0	0.0	0.0	0.0	0.0	0.0	149.9
BFVS High Priority Imp	provements										
1-98-05-4550	Oper. Capability	0.0	15.2	15.8	29.5	28.3	57.8	48.2	46.8	122.8	364.4
Prior Year Closed Mods											
0-00-00-0000		664.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	664.0
Totals		960.3	64.4	54.3	35.0	30.6	57.8	48.2	46.8	122.8	1420.2

Date:

February 2002

MODIFICATION TITLE: A2 ODS Applique [MOD 2] 1-98-05-4539

MODELS OF SYSTEM AFFECTED: M2A2ODS, M6 Linebacker, M7 BFIST

## DESCRIPTION/JUSTIFICATION:

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 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 a turret mounted display for the Bradley commander.

## DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Preliminary Design Review: 7/95 Critical Design Review: 1/96 LUT: 8/98

Installation Schedule	:
-----------------------	---

Inputs Outputs

Inputs Outputs

Pr Yr		FY:	2001			FY 2	2002			FY 2	2003			FY 2	004			FY :	2005	
Totals	1	2	3	1	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
								58	33	33	33	34	49	48	48	48				
								58	33	33	33	34	49	48	48	48				

Totals	To		2009	FY 2			2008	FY 2			2007	FY			2006	FY 2	
	Complete	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1
384																	
384																	

METHOD OF IMPLEMENTATION:	Contractor		ADMINISTRATIVE LEADTIM	ſE:	6 Months	PRODUCTION	ON LEADTIME:	12 Months
Contract Dates:	FY 2002	Mar 02	FY 2003	Mar 03		FY 2004	Mar 04	

Delivery Date: FY 2002 Mar 03 FY 2003 Mar 04 FY 2004 Mar 05

Date:

February 2002

MODIFICATION TITLE (Cont): A2 ODS Applique [MOD 2] 1-98-05-4539

	FY:	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY:	2006	FY:	2007	T	C	ТОТ	ʿAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
ODS Installation A-kits			179	12.5	147	6.5	58	2.3											384	21.3
ODS Installation B-kits	68	1.7	121	3.2	89	3.1	49	1.7											327	9.7
ODS Installation Kits	46	5.6																	46	5.6
ODS IOT&E Log. Spt.		0.6																		0.6
ODS Engineering Spt.		2.6		0.3																2.9
Test Spt.		0.2																		0.2
EBC Retrofit Kits	53	1.7																	53	1.7
ODS Eng. Vehicle Engineering				0.7																0.7
ODS Eng. Vehicle Kits			58	0.0	129	0.1					58	0.0							245	0.1
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 – Kits					58	0.9	121	1.4											179	2.3
FY 2002 Equip Kits							12	0.1	135	1.6									147	1.7
FY 2003 Equip Kits									58	0.7									58	0.7
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0	58	0.9	133	1.5	193	2.3		0.0		0.0		0.0		0.0	384	4.7
Total Installment Total Procurement Cost		12.4		16.7	٥٥	10.6	133	5.5	193	2.3		0.0		0.0		0.0		0.0	J04	4.7 47.5
Total Floculcinent Cost		12.4		10.7		10.0		ر.ن		2.3		0.0		0.0		0.0		0.0		41.3

MODIFICATION TITLE: Armor tiles [MOD 4] 1-84-05-4038

MODELS OF SYSTEM 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 High Explosive Anti Tank (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:

Critical Design Review: 3Q90

Contractor Test and Evaluation: N/A
Development Test and Evaluation: N/A
Initial Operational Test and Evaluation: N/A

IPR Prodution Decision: 2Q92

TDP Available: N/A

	Pr Yr		FY	2001			FY	2002			FY 2	2003			FY 200	4		FY 20	005
	Totals	1	2	:	3 4	- 1	2	3	4	1	2	3	4	1	2	3	4	1 2	3 4
Inputs																			
Outputs																			
		FY	2006			FY	2007			FY:	2008			FY 20	09		To	,	Totals
	1	2	3		4 1	2	3	4	1	2	3	4	1	2	3	4	Complete		Totals
Inputs																			(
Outputs																			
METHOD OF IMPLI	EMENTATION	J:	Troop In	stalled		ADMINI	STRATI	VE LEAD	TIME:		6 Months		P	RODUCT	TON LEAI	OTIME:	6 Month	ıs	
Contract Dates:			FY 2002		N/A			FY 2003	N/A	1			F	Y 2004	N/A				
Delivery Date:			FY 2002	]	N/A			FY 2003	N/A	1			F	Y 2004	N/A				

Date:

February 2002

MODIFICATION TITLE (Cont): Armor tiles [MOD 4] 1-84-05-4038

	FY	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY:	2006	FY:	2007	T	'C	TO	ΓAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	320	92.3	84	19.0	66	15.5													470	126.8
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders		0.6																		0.6
Data																				
Training Equipment																				
Support Equipment																				
Other		19.9		1.1		1.5														22.5
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 - Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		112.8		20.1		17.0		0.0		0.0		0.0		0.0		0.0		0.0		149.9
1 star i roducinom cost		112.0		20.1		17.0		0.0		0.0		0.0		0.0		0.0		0.0		11/./

MODIFICATION TITLE: BFVS High Priority Improvements [MOD 5] 1-98-05-4550

MODELS OF SYSTEM AFFECTED: M2A3/M3A3

#### DESCRIPTION/JUSTIFICATION:

The Bradley Fighting Vehicle Systems are expected to remain in service until at least 2025. Theses vehicles represent the primary mechanized infantry force for some time into the foreseeable future. In order to remain viable and retain a strategic hedge against ever-improving threat forces, a series of operational block modifications are being planned for incorporation on these systems. The production implementation of these improvements will be incorporated on the A3 production line, but vehicles built prior the upgrades will require modification. These improvements include the Enhanced Turret Processor Unit (TPUII), M3 Squad Leaded Display (SLD), Driver Heat Insulation, Improved Driver's Viewer stowage, 12x boresight stowage, Common Inertial Navigation Unit (INU) mounting provisions, Missile Interface Module (MIM) Card, ECM improvements, Hull Processor Unit (HPU II) and Common INU.

## DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

TPU2 Spec Available Jan 01

TPU2 Contract Award Apr 01

Block 1 Spec Available May 02

Block 1 Contract Award Sep 02

Block 2 Spec Available Nov 04

Block 2 Contract Award Apr 04

Block 3 Spec Available Nov 05

Block 3 Contract Aw Installation Schedule:	vard Apr	05																			
	Pr Yr		FY:	2001			FY 2	2002			FY 20	03			FY 2	004			FY 200	5	
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs									31	31	32	32	17	18	18	18	32	32	33	33	43
Outputs									31	31	32	32	17	18	18	18	32	32	33	33	43
		FY 2	2006			FY 2	2007			FY 20	008			FY 20	09			To		7	Γotals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Comp	plete			
Inputs	43	44	44	115	115	115	115	17	17	17	16	16	16	16	16	23		240			1355
Outputs	43	44	44	115	115	115	115	17	17	17	16	16	16	16	16	23		240			1355
METHOD OF IMPLEME	NTATION	J: (	contracto	r		ADMINI	STRATIV	E LEAD	ГІМЕ:	6	Months		PI	RODUCT	ION LE	ADTIME:	15 N	Months			
Contract Dates:		]	FY 2002	Se	ep 02		]	FY 2003	Apr (	)3			F	Y 2004	Apr	04					
Delivery Date:		]	FY 2002	D	ec 03		]	FY 2003	Jul 0	4			F	Y 2004	Jul (	)5					

Date:

February 2002

MODIFICATION TITLE (Cont): BFVS High Priority Improvements [MOD 5] 1-98-05-4550

	FY	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	T	C	ТОТ	TAL .
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
TPU 2			126	15.2															126	15.2
Block 1 Mods					71	15.8	130	29.5	114	26.4									315	71.7
Block 2 Mods									60	1.9	397	12.8							457	14.7
Block 3 Mods											63	45.0	67	48.2	64	46.8	263	122.8	457	262.8
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 - Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		15.2		15.8		29.5		28.3		57.8		48.2		46.8		122.8		364.4

Ext	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	nte:	I	February 2002		
Appropriation/Budget Ac Procurement of W&TCV, An	-	t vehicles				P-1 Item Non HO		D SP FT 155M	M M109A6 (1	MOD) (GA040	00)	
Program Elements for Co	de B Items:			Code:	Other Relat	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	1381.7	11.2	68.9	8.0	5.3	17.4	28.9	10.3	3.1	9.4		1544.3
Less PY Adv Proc	16.3											16.3
Plus CY Adv Proc	16.3											16.3
Net Proc (P-1)	1381.7	11.2	68.9	8.0	5.3	17.4	28.9	10.3	3.1	9.4		1544.3
Initial Spares	9.4											9.4
Total Proc Cost	1391.1	11.2	68.9	8.0	5.3	17.4	28.9	10.3	3.1	9.4		1553.7
Flyaway U/C												
Wpn Sys Proc U/C												

Funds the procurement of approved modifications to the 155MM Self-Propelled Howitzer. The fiscal program identified herein completes production and fielding of the M109A6 Paladin Howitzer and funds selected Paladin System Improvements. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP). (See detailed description/justification of following exhibit P-3A's.)

#### 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 US/Israeli Joint Development Agreement has expired effective with the Paladin Milestone III, Full Scale Production Decision.

## **Justification:**

FY03 funding provides for the following Howitzer Improvement Program system improvements necessary for the vehicle to operate and interface with other systems on the battlefield: Vehicular Intercom System (VIS) Communication Degradation; Modular Artillery Charge System (MACS) Storage and Handling; Battery Guard System; Paladin Digital Fire Control System (PDFCS); Advanced Computer Unit (ACU).

Exhibit P-40M	, Budget Item Justifica	ation Sheet				Dat	e:	F	ebruary 2002		
Appropriation/Budget Acti Procurement of W&TC	ivity/Serial No: V, Army /1/Tracked combat vehicles				P-1 Item Nomeno	clature	HOWITZER,	MED SP FT 155M	IM M109A6 (MOD)	) (GA0400)	
Program Elements for Cod	de B Items:		Code:	Other Related	Program Elements:						
Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Howitzer Improvement	Program										
1-81-05-1002	Unclassified	1458.4	8.0	5.3	17.4	28.9	10.3	3.2	9.4	0.0	1540.9
Chlorofluorocarbon (CF	FC Elimination)										
1-96-05-1003	Unclassified	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
Totals		1461.8	8.0	5.3	17.4	28.9	10.3	3.2	9.4	0.0	1544.3

Date:

February 2002

MODIFICATION TITLE: Howitzer Improvement Program [MOD 1] 1-81-05-1002

MODELS OF SYSTEM AFFECTED: Howitzer, MED SP 155MM M109 Series (MOD)

#### DESCRIPTION/JUSTIFICATION:

The M109A6 Paladin, approved for full scale production, was 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 involved a combined effort between Letterkenny Army Depot and the contractor. M109A2/A3 Howitzers from CONUS and OCONUS field units were shipped to Letterkenny Army Depot for overhaul and modification. The overhauled/modified chassis were shipped to the contractor for final integration, assembly, and acceptance testing. The acquisition strategy for the FY89/90-92 called for sole source contracts. An FY93-96 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 and a FY00 contract was awarded in July 2000 for 7 additional systems. In October 2001, FY00 funding was received for an additional 18 vehicles from proceeds of an FMS sale of M109A2 Howitzers. FY02-FY07 funding is for system improvements necessary for the vehicle to operate and interface with other systems on the battlefield.

#### 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) in 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 completed deliveries of the multiyear contract ahead of schedule. Deliveries from the FY00 contract will be completed 2nd Qtr FY02. Deliveries from the FY02 contract are scheduled to be completed 4th Qtr FY03.

Installation Schedule:																					
	Pr Yr		FY	2001			FY 2	2002			FY 2	2003			FY	2004			FY	2005	
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2		3	4 1	2	3	4
Inputs	951	6							18												
Outputs	950					3	4					4	14								
		FY	2006			FY 2	2007			FY 2	2008			FY 2	2009			To			Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3		4	Complete			
Inputs																					975
Outputs																					975
METHOD OF IMPLEM	ENTATIO	N:	Production	on		ADMINI	STRATIV	/E LEAD	TIME:		3 Months			PRODUC	CTION L	EADTIN	ΛE:	17 Mont	hs		
Contract Dates:			FY 2002	Ja	an 2002			FY 2003						FY 2004							
Delivery Date:			FY 2002	Jı	ın 2003			FY 2003						FY 2004							

Date:

February 2002

MODIFICATION TITLE (Cont): Howitzer Improvement Program [MOD 1] 1-81-05-1002

	FY:	2000																		
	and l	Prior	FY :	2001 FY 2002		2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	T	C	TOT	ΓAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	975																		975	
Equipment		810.2		5.4																815.6
Equipment, Nonrecurring		245.6																		245.6
Engineering Change Orders		116.6																		116.6
Matrix Personnel Support		101.5						0.5		0.5		0.5		0.2		0.2				103.4
Data/Other		18.9																		18.9
Training Equipment		14.1																		14.1
Vehicular Intercom System		11.3																		11.3
Project Mgmt Admin		25.2		0.6		1.5		1.5		1.5		1.5		0.5		0.5				32.8
Fielding		32.5		1.9																34.4
System Improvements				0.1		3.8		15.4		26.9		8.3		2.5		8.7				65.7
Installation of Hardware																				
FY 2000 & Prior Equip Kits	975	82.5																	975	82.5
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment	975	82.5		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	975	82.5
Total Procurement Cost		1458.4		8.0		5.3		17.4		28.9		10.3		3.2		9.4		0.0		1540.9

MODIFICATION TITLE: Chlorofluorocarbon (CFC Elimination) [MOD 2] 1-96-05-1003

MODELS OF SYSTEM AFFECTED: Howitzer, MED SP 155MM M109 Series (MOD)

## DESCRIPTION/JUSTIFICATION:

References: DOD Directive 6050.0; Policy Letter 200.91-1; AMC Regulation 70-68; Montreal Protocol of 1986. The previous references mandate the replacement of R-12 FREON, used in the current M109A6 Paladin's Microclimatic Conditioning System (MCS), with a non-chlorofluorocarbon (CFC) substitute.

## DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Request for Proposal - 3QFY97

Contractor Selected - 1QFY98

Joint Government/Contractor Test and Evaluation - 3QFY98 and ongoing

IPR Production Decision/Contract Modification - 2QFY99

TDP Available - 2QFY99

Installation Schedule:																					
	Pr Yr		FY	2001	FY 2002						FY 2		FY	2004		FY 2005					
	Totals	1	2	. 3	4	1	2	3	4	1	2	3	4	1	2	3	3 4	1	2	3	4
Inputs	950																				
Outputs	907	37	6																		
		FY	2006			FY :	2007		FY 2008					FY 2	2009			To			Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	2	1 (	Complete			
Inputs																					950
Outputs																					950
METHOD OF IMPLEME	ENTATION	<b>V</b> :	Field Ret	rofit		ADMINI	STRATIV	VE LEAD	TIME:		0 Months			PRODUC	TION L	EADTIN	1E:	0 Months			
Contract Dates:			FY 2002					FY 2003						FY 2004							
Delivery Date:	Date: FY 2002						FY 2003			FY 2004											

Date:

February 2002

MODIFICATION TITLE (Cont): Chlorofluorocarbon (CFC Elimination) [MOD 2] 1-96-05-1003

RDT&E Procurement Kit Quantity 950 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.		FY 2	2000	1																	
RDT&E   Procurement		and l	Prior	FY	2001			FY 2	2003					FY 2006		FY 2007				TOT	ΓAL
Procurement		Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
Kit Quantity 950 Hardware 2.0 Testing 0.2																					
Hardware 2.0 Testing 0.2 Testing 0.2  Testin																					
Testing 0.2		950																		950	
																					2.0
FY 2000 & Prior Equip Kits 950 1.2	Testing		0.2																		0.2
FY 2000 & Prior Equip Kits 950 1.2																					
FY 2000 & Prior Equip Kits 950 1.2																					
FY 2000 & Prior Equip Kits 950 1.2																					
FY 2000 & Prior Equip Kits 950 1.2																					
FY 2000 & Prior Equip Kits 950 1.2																					
FY 2000 & Prior Equip Kits 950 1.2																					
FY 2000 & Prior Equip Kits 950 1.2																					
FY 2000 & Prior Equip Kits 950 1.2																					
FY 2001 – Kits FY 2002 Equip Kits FY 2003 Equip Kits FY 2004 Equip Kits FY 2005 Equip Kits FY 2006 Equip Kits FY 2007 Equip Kits	Installation of Hardware																				
FY 2002 Equip Kits FY 2003 Equip Kits FY 2004 Equip Kits FY 2005 Equip Kits FY 2006 Equip Kits FY 2007 Equip Kits	FY 2000 & Prior Equip Kits	950	1.2																	950	1.2
FY 2003 Equip Kits FY 2004 Equip Kits FY 2005 Equip Kits FY 2006 Equip Kits FY 2007 Equip Kits																					
FY 2004 Equip Kits FY 2005 Equip Kits FY 2006 Equip Kits FY 2007 Equip Kits	FY 2002 Equip Kits																				
FY 2004 Equip Kits FY 2005 Equip Kits FY 2006 Equip Kits FY 2007 Equip Kits	FY 2003 Equip Kits																				
FY 2005 Equip Kits FY 2006 Equip Kits FY 2007 Equip Kits																					
FY 2006 Equip Kits FY 2007 Equip Kits																					
FY 2007 Equip Kits	FY 2006 Equip Kits																				
Total Installment 950 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 950	Total Installment	950	1.2		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	950	1.2
Total Procurement Cost 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Total Procurement Cost		3.4				0.0								0.0				0.0		3.4

Exhi	bit P-40	, Budge	t Item J	ustifica	eet	Date: February 2002											
Appropriation/Budget Active Procurement of W&TCV, Army	-	t vehicles				P-1 Item Nomenclature FAASV PIP TO FLEET (GA8010)											
Program Elements for Code	B Items:			Code: A	Other Relate	Other Related Program Elements:											
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog					
Proc Qty																	
Gross Cost	98.0	3.1	0.2	0.0	9.2	2.9	11.2	3.3	1.0			129.0					
Less PY Adv Proc																	
Plus CY Adv Proc																	
Net Proc (P-1)	98.0	3.1	0.2	0.0	9.2	2.9	11.2	3.3	1.0			129.0					
Initial Spares																	
Total Proc Cost	98.0	3.1	0.2	0.0	9.2	2.9	11.2	3.3	1.0			129.0					
Flyaway U/C																	
Wpn Sys Proc U/C																	

FY03 provides funding for the procurement of the Field Artillery Ammunition Support Vehicle (FAASV) Materiel Change and FAASV Halon Replacement modifications (M992A2 Conversion).

This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Exhibit P-40M	I, Budget Item Justifica	tion Sheet				Dat	ə:	F	ebruary 2002		
Appropriation/Budget Ac Procurement of W&TO	tivity/Serial No: CV, Army /1/Tracked combat vehicles				P-1 Item Nomeno	clature	FAASV PIP T	O FLEET (GA80)	10)		
Program Elements for Co	de B Items:		Code: A	Other Related I	Program Elements:						
Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
FAASV Materiel Chan	nge (A2 Conversion)										
1-93-05-4457	Unclassified	98.2	0.0	9.2	2.1	3.9	0.6	0.9	0.0	0.0	114.9
FAASV Halon Replace	ement										
1-94-05-4477	Unclassified	3.1	0.0	0.0	0.8	7.3	2.7	0.0	0.0	0.0	13.9
Totals		101.3	0.0	9.2	2.9	11.2	3.3	0.9	0.0	0.0	128.8

## INDIVIDUAL MODIFICATION Date: February 2002

MODIFICATION TITLE: FAASV Materiel Change (A2 Conversion) [MOD 1] 1-93-05-4457

MODELS OF SYSTEM AFFECTED: M992 and M992A1

## 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 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. FY02-FY07 funding is for system improvements necessary for the vehicle to operate and interface with other systems on the battlefield and supports the FAASV Recapitalization Program approved by Vice Chief of Staff Army in Sept 01.

## 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 - 3QFY93 M992A2 First Unit Equipped - 1QFY95

## Installation Schedule:

Installation Schedule:																					
	Pr Yr		FY	2001			FY	2002			FY	2003			FY	2004			FY	2005	
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	. 3	3	4 1	2	3	4
Inputs	789																				
Outputs	789																				
		FY	2006			FY :	2007			FY	2008			FY 2	2009			To			Totals
	1	2	. 3	4	1	2	3	4	1	2	3	4	1	2	3		1	Complete			
Inputs																					789
Outputs																					789
METHOD OF IMPLEMI	ENTATION	V:				ADMINI	STRATI	VE LEAD	OTIME:		24 Montl	hs		PRODUC	CTION L	EADTIN	ڮ:	24 Montl	18		
Contract Dates:			FY 2002	. F	Y 1999			FY 2003	FY	2000				FY 2004	FY	2001					
Delivery Date:			FY 2002	. F	Y 1999			FY 2003	FY	2000				FY 2004	FY	2001					

Date:

February 2002

MODIFICATION TITLE (Cont): FAASV Materiel Change (A2 Conversion) [MOD 1] 1-93-05-4457

	FY:	2000																		
	and l	Prior	FY:	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY:	2007	Т	C	TOT	`AL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	789																		789	
Installation Kits		43.6		0.0																43.6
Engineering Change Orders		9.3																		9.3
Project Management Admin		3.1				0.5		0.5		0.5		0.5		0.2						5.3
Testing		0.3																		0.3
Fielding Support		6.2																		6.2
Depot Maint Pre Modification		0.8																		0.8
System Improvements:		9.4				8.7		1.6		3.4		0.1		0.7						23.9
Installation of Hardware																				
FY 2000 & Prior Equip Kits	789	25.5																	789	25.5
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment	789	25.5		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	789	25.5
Total Procurement Cost		98.2		0.0		9.2		2.1		3.9		0.6		0.9		0.0		0.0		114.9

Date:

February 2002

MODIFICATION TITLE: FAASV Halon Replacement [MOD 2] 1-94-05-4477

MODELS OF SYSTEM 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 on 927 FAASV systems. FY97-99 funds have been appropriated to initiate the conversion process by replacing the fire suppression distribution system in the FAASV engine compartment with one suitable to both Halon and the selected alternate agent. FY04 funds have been appropriated to swap out the Halon bottles to the selected alternate agent for 927 FAASV systems. Additional FY03-05 funds will be used to test a safe and environmentally acceptable Automatic Fire Extinguishing System (AFES) materiel for the crew compartment for the FAASV.

## DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Preliminary Design Review - 1QFY98 Critical Design Review - 1QFY98 Joint Government Contractor Test and Evaluation - 1QFY98 IPR Production Decision - 4QFY98 TDP Available - 4QFY98 First Unit Installed - 2QFY99

Installation Schedule	:
-----------------------	---

Inputs	
Outputs	

Pr Yr		FY 2	2001			FY	2002			FY	2003			FY	2004			FY	2005	
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
720	207																			
610	200	117																		

		FY	2006			FY 2	2007			FY	2008			F	Y 2009	)		To	Totals
	1	2	3	4	1	2	3	4	1	2	2	3 4	4	1	2	3	4	Complete	
Inputs																			927
Outputs																			927

ı	Outputs																			
	METHOD OF IMPLEMEN	NTATION	V:			A	ADMINIS	TRATIV	E LEAD	TIME:		1 Months	i	PRODUC	CTION LI	EADTIM	E:	3 Months		
	Contract Dates:		]	FY 2002	FY	1999		I	FY 2003	FY	2000			FY 2004	FY	2001				
	Delivery Date:		]	FY 2002	FY	1999		I	FY 2003	FY	2000			FY 2004	FY	2001				
п																				

Date:

February 2002

MODIFICATION TITLE (Cont): FAASV Halon Replacement [MOD 2] 1-94-05-4477

	FY 2	2000																		
	and l		FY:	2001	FY:	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY :	2007	Т	C	ТОТ	CAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	927																		927	
Installation Kits A		1.0																		1.0
Engineering Support		0.2																		0.2
Test		0.5						0.8		2.8		2.7								6.8
Installation Kits B										3.5										3.5
Installation of Hardware																				
FY 2000 & Prior Equip Kits	927	1.4																	927	1.4
FY 2001 - Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits										1.0										1.0
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment	927	1.4		0.0		0.0		0.0		1.0		0.0		0.0		0.0		0.0	927	2.4
Total Procurement Cost	721	3.1		0.0		0.0		0.8		7.3		2.7		0.0		0.0		0.0	721	13.9
10m 110monon Cost		5.1		0.0		0.0		0.0		,.5		2.7		0.0		0.0		0.0		15.7

Exh	ibit P-40	, Budge	t Item J	ustifica	tion Sho	eet	Da	te:	F	ebruary 2002		
Appropriation/Budget Act Procurement of W&TCV, Arr	-	nt vehicles				P-1 Item Nom IMP		OVERY VEH	ICLE (M88 M	OD) (GA0570	0)	
Program Elements for Coc	le B Items:			Code:	Other Relat	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	86	16		29	20	16	11	11				189
Gross Cost	207.0	53.6		76.5	57.7	50.3	44.5	48.4	10.7			548.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	207.0	53.6		76.5	57.7	50.3	44.5	48.4	10.7			548.7
Initial Spares	3.5				2.8	2.1	3.0					11.5
Total Proc Cost	210.6	53.6		76.5	60.5	52.4	47.4	48.4	10.7			560.2
Flyaway U/C												
Wpn Sys Proc U/C		3.3		2.6	2.9	3.1	4.0	4.4				

The M88A2 (HERCULES - Heavy Equipment Recovery Combat Utility Lift and Evacuation System) 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. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

#### Justification:

The FY03-05 funding will be used to produce 38 M88A2 HERCULES utilizing the existing M88A1 chassis as the base vehicle and increasing the horsepower, brake/steering, winch, lift and suspension characteristics which will allow the safe recovery of Abrams tanks. The fielded M88A1 lacks the necessary horsepower and braking to safely support the recovery of the Abrams fleet. Improvements incorporated into HERCULES fix these operational shortcomings. In addition, the increased winching and lifting capability accommodate all Abrams tank models including the 70-ton M1A2. Without the improvements incorporated in the HERCULES, units must use two or three recovery vehicles (or another Abrams to tow a disabled tank) to perform the spectrum of recovery missions. The Army intends to use the FY06 program funding to bring the HERCULES program to an orderly close-out which will include; production and delivery of vehicles to bring the total quantity to 189, complete fieldings to selected FORSCOM and TRADOC units, complete essential configuration change enhancements, and bring the HERCULES program to conclusion.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/F Procurement of Tracked comb	f W&TCV, A				tem Nomenclatur D RECOVERY VEH	e: IICLE (M88 MOD) ((	GA0570)	Weapon System T	Type:	Date: Februa	ary 2002
	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
Vehicle Manufacturing - Contractor Vehicle Manufacturing - GFE Contractor Engineering Engineering Change Orders Project Management - Core Project Management - OGA Transportation Fielding Testing (non-Track and Cleat) Depot Maintenance - Premodification Fleet Cut - in/Retrofit for Modifications Track and Cleat Engineering & Testing Data Initial Spares	A	\$000	Each	\$000	\$000 49514 2303 8125 1485 1304 1128 49 4783 251 2102 1500 3560 357	Each 29	\$000 1708	\$000	Each 20	\$000	\$000 31629 1738 5149 1140 1951 1287 115 2780 1568 2901 53 2133	Each	\$000 197
Total					76461			60540			52444		

Exhibit P-5a, Budget Procureme	ent History and Planning							Date: F	ebruary 2	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked combat vehic	les	Weapon Syste	em Type:		•	em Nomenc ECOVERY VE	lature: HICLE (M88 MOD)	(GA0570)		
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issu Date
Vehicle Manufacturing - Contractor										
FY 2001	UDLP York, PA	SS-FFP	TACOM	APR 01	MAR 02	29	1708	YES		OCT (
FY 2002	UDLP York, PA	SS-FFP	TACOM	MAR 02	AUG 03	20	1829	YES		OCT (
FY 2003	UDLP York, PA	SS-FFP	TACOM	MAR 03	JUL 04	16	1977	YES		OCT (
Vehicle Manufacturing - GFE										l
FY 2001	VARIOUS	RQN/PO	VARIOUS	VARIOUS	VARIOUS			YES		
FY 2002	VARIOUS	RQN/PO	VARIOUS		VARIOUS			YES		
FY 2003	VARIOUS	RQN/PO	VARIOUS	VARIOUS	VARIOUS			YES		

REMARKS: FY02: Production material with greater than 12 month lead time must be awarded in Nov 01 with definitive production contract being awarded in Mar 02.

FY03: Production material with greater than 12 month lead time must be awarded in Nov 02 with definitive production contract being awarded in Mar 03.

	FY 01 / 02 BUDGET PI	ROD	UCTION	SCH	IEDUL	E		P-1 l IMP	Item N ROVE	omen D RE	nclatur ECOVI	e: ERY	VEHI	ICLE	(M88	8 МО	D) (C	3A05′	70)				]	Date:			Fε	brua	ary 20	002			
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Appropriation/Budget Ac Procurement of W&TCV, Ar		t vehicles				P-1 Item Nom HEA		LT BRIDGE (H	HAB) SYS (Mo	OD) (GZ3250	)	
Program Elements for Co	de B Items:			Code:	Other Relate	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	14	6	14	12								46
Gross Cost	106.4	50.0	90.9	76.3	7.5							331.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	106.4	50.0	90.9	76.3	7.5							331.1
Initial Spares	0.9	0.9	1.3									3.1
Total Proc Cost	107.3	50.8	92.2	76.3	7.5							334.2
Flyaway U/C												
Wpn Sys Proc U/C		8.3	6.5	6.4								

The Wolverine (Heavy Assault Bridge) is a 26 meter (84 feet) Military Load Class 70 bridge mounted on a modified M1A2 SEP Abrams Tank chassis. The bridge spans 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, operated by a crew of two 12B soldiers, achieves situational awareness via Applique in support of combined arms operations. Its mission is to provide gap crossing capability for heavy maneuver forces. It supports the Abrams Tank System and the Bradley equipped BCT with similiar mobility, survivability, and supportability as the assault force. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

## Justification:

Operation Desert Storm illustrated that current Army bridging systems lacked heavy maneuver force mobility, survivability, and MLC 70, gap spanning capability. The Wolverine replaces the Armored Vehicle Launched Bridge (AVLB) providing increased gap crossing, increased load capacity with improved mobility, survivability, and logistics supportability. The Wolverine ensures the Heavy Brigade Combat Team's freedom of maneuver and enables the massing of combat power. First Unit Equipped was Feb 01 with 13 vehicles supporting the 588th Engineer Battalion participation in the Force XXI Division Capstone Exercise.

Exhibit P-5, Weapon WTCV Cost Analysis	Appropriation/ Procurement Tracked com	of W&TCV, A				tem Nomenclature SSAULT BRIDGE (I	e: HAB) SYS (MOD) ((	GZ3250)	Weapon System	Гуре:	Date: Februa	ary 2002
<b>WTCV</b> ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
Vehicle Manufacturing - Contractor Vehicle Manufacturing - ANAD Vehicle Manufacturing - GFE Contract Engineering - HAB Unique Contract Engineering - SEP Common Engineering Change Orders Project Mgmt Admin - Core Project Mgmt Admin - OGA New Equipment Training Total Package Fielding Transportation Modifications Obsolescence	\$000	Each	\$000	\$000 43000 1746 7418 16861 500 1100 1070 1700 1800 400 200	12	\$000 3584 146 619	\$000 1772 100 200 1223 1419 311 1495 500 519	Each	\$000	\$000	Each	\$000
Total				76295			7539					

Exhibit P-5a, Budget Procurement Hist	ory and Planning							Date: F	ebruary 20	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked combat vehicles		Weapon Syster	n Type:		P-1 Line Ito HEAVY ASSA		ature: IAB) SYS (MOD) (G	5Z3250)		
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Vehicle Manufacturing - Contractor FY 2001  Vehicle Manufacturing - ANAD FY 2001  Vehicle Manufacturing - GFE FY 2001	General Dynamics Land Sys Sterling Heights, MI  Anniston Army Depot Anniston, Alabama  Govt Furnished Equipment Various	SS-FFP	TACOM	Jun 01	Jan 03	12 12 12	3584 146 619	YES		Mar 01
REMARKS:										

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M			PR	ODUCTI	ON RATES			MFR B R				ADMI	NLEA	D TIN	ME	J	1	MFR			ТОТА	L	T	REM.	ARKS	S							
F							REACHED	Number			Pri	or 1 Oct			er 1 Oct	_		er 1 Oc	t	A	fter 1	Oct	4										
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+	INITIAL 1 REORDER		_		0	+		9	+		20	_		29		4										
1	General Dynamics Land Sys, Sterling Heights, MI		1.00		10.00	25.00	0	_					_		0	_		0	+		0	_		0		4							
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										REO	RDER																						

Exl	Exhibit P-40, Budget Item Justification Sheet  Date: February 2002  P-1 Item Nomenclature														
Appropriation/Budget Ac Procurement of W&TCV, A		t vehicles						LAUNCH BR	IDGE (AVLB	) (MOD) (GZ	3000)				
Program Elements for Co	ogram Elements for Code B Items:  Code: Other Related Program Elements:														
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog			
Proc Qty															
Gross Cost	146.2	1.0	1.4		4.0	10.0	8.3	8.5	8.8	11.1		199.3			
Less PY Adv Proc															
Plus CY Adv Proc															
Net Proc (P-1)	146.2	1.0	1.4		4.0	10.0	8.3	8.5	8.8	11.1		199.3			
Initial Spares															
Total Proc Cost	146.2	1.0	1.4		4.0	10.0	8.3	8.5	8.8	11.1		199.3			
Flyaway U/C															
Wpn Sys Proc U/C															

The Armored Vehicle Launch Bridge (AVLB) is the legacy assault bridge supporting heavy forces. AVLBs are primarily assigned to Combat Engineer, Training Units and War Reserve sites.

COMMON CHASSIS MODIFICATIONS: Completes M60 mods required but not applied to the AVLB fleet.

HYDRAULIC/ELECTRIC: Hydraulic and electrical system will be updated from their current 1950s based technology configuration. Seat belts will also be installed.

This system supports the Legacy transition path of the Transformation Campaign Plan. (TCP).

## Justification:

FY03 funding provides for the continuation of the AVLB Common Chassis and Hydraulic/Electrical Modification programs. Supporting the AVLB fleet, in Active Component and high priority War Reserve assets initially.

Exhibit P-40M,	, Budget Item Justific	ation Sheet				Dat	e:	F	ebruary 2002		
Appropriation/Budget Acti Procurement of W&TC	vity/Serial No: V, Army /1/Tracked combat vehicles				P-1 Item Nomeno	lature	ARMORED V	EH LAUNCH BE	RIDGE (AVLB) (MC	DD) (GZ3000)	
Program Elements for Cod	e B Items:		Code:	Other Related I	Program Elements:						
Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Hydraulic/Electrical Up	grade										
0-00-00-0000	Oper Capability	0.0	0.0	2.8	8.5	7.6	8.5	8.8	11.1	0.0	47.3
Prior Completed Mods											
0-00-00-0000		146.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	146.2
Battlefield Combat Iden	ntification Systems										
0-00-00-0000	Oper Capability	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
AVLB Common Chassi	s Mod										
1-97-05-4531	Oper Capability	2.2	0.0	1.2	1.5	0.6	0.0	0.0	0.0	0.0	5.5
Totals		148.6	0.0	4.0	10.0	8.2	8.5	8.8	11.1	0.0	199.2

	INDIVIDUAL MODIFICATION	Date:	February 2002
MODIFICATION TITLE: Hydraulic/Electrical Upgrade [MOD 1] 0-00-00-0000			
MODELS OF SYSTEM AFFECTED: MASA 5/M60 A 1			

## DESCRIPTION/JUSTIFICATION:

2. AVLB HYDRAULIC/ELECTRICAL UPGRADE: Hydraulic System Improvements incorporate current technology components, eliminating leaks and improving pump reliability to reduce maintenance burden. Electrical System Improvement, incorporates Improved Harness Wrap and 650 AMP Alternator improving Mean Time Between Failure. This upgrade will improve readiness and supportability. Seat belts will also be installed.

## DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Mar 02, Award Production Prove Out

Mar 03, Complete Evaluation

June 03, Award Buy/Apply Contract

Installation Schedule:																					
	Pr Yr		FY:	2001			FY 2	2002			FY 2	2003			FY 2	004			FY 20	05	
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs											2						16	16	16	19	19
Outputs												2						16	16	16	19
		FY 2	2006			FY 2	2007			FY 2	2008			FY 2	009			To			Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Co	mplete			
Inputs	20	21	22	22	16	16	17	17	21	21	21	21									323
Outputs	19	20	21	22	22	16	16	17	17	21	21	21	21								323
METHOD OF IMPLEMI	ENTATION	<b>1</b> :	CONTRA	ACTOR T	EAMS	ADMINIS	STRATIV	E LEAD	TIME:		1 Months		F	RODUC	TION LE	EADTIME	E: 1	2 Months	·		
Contract Dates:			FY 2002	M	ar 02		]	FY 2003	Jun	03			F	FY 2004	Dec	03					
Delivery Date:			FY 2002	M	ar 03		]	FY 2003	Jun	04			F	Y 2004	Dec	04					

Date:

February 2002

MODIFICATION TITLE (Cont): Hydraulic/Electrical Upgrade [MOD 1] 0-00-00-0000

	FY:	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	T	C	ТОТ	`AL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity					2		48		58		65		66		84				323	
Installation Kits						0.2		4.2		5.2		5.9		6.1		7.9				29.5
Installation Kits, Nonrecurring																				
Equipment																				
Tooling						0.1														0.1
Engineering Change Orders						0.2		0.5												0.7
TM Updates						1.5		1.0												2.5
Govt Support						0.5		0.5		0.6		0.6		0.6		0.6				3.4
STS						0.2		0.2		0.2		0.2		0.2		0.2				1.2
Testing								0.8												0.8
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 – Kits																				
FY 2002 Equip Kits					2	0.1													2	0.1
FY 2003 Equip Kits							48	1.3											48	1.3
FY 2004 Equip Kits									58	1.6									58	1.6
FY 2005 Equip Kits											65	1.8							65	1.8
FY 2006 Equip Kits													66	1.9					66	1.9
FY 2007 Equip Kits															84	2.4			84	2.4
TC Equip- Kits																				
Total Installment		0.0		0.0	2	0.1	48	1.3	58	1.6	65	1.8	66	1.9	84	2.4		0.0	323	9.1
Total Procurement Cost		0.0		0.0		2.8		8.5		7.6		8.5		8.8		11.1		0.0		47.3

MODIFICATION TITLE   Prior Completed Mode   MODIFICATION   Prior Completed Mode   MODIFICATION   Prior Completed Mode   MODIFICATION   Prior Completed Mode   MODIFICATION   Prior Completed Modification   Prior Completed Mode   MODIFICATION   Prior Completed Modification   Prior Completed Mode   Prior Completed Mod									INDIV	DUAL M	ODIFIC	ATION				Date:		February '	2002		
DEVELOPMENT STATUS MAJOR DEVELOPMENT MILESTONES:    Second	MODIFICATION TITLE:	Prior Cor	mpleted N	Mods [M0	OD 2] 0-0	0-00-000	)														
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES	MODELS OF SYSTEM A	FFECTEI	D:																		
Total   Pr Yr	DESCRIPTION/JUSTIFIC	ATION:																			
Total   Pr Yr																					
Total   Pr Yr																					
Total   Pr Yr																					
Total   Pr Yr																					
Total   Pr Yr																					
Total   Pr Yr																					
Total   Pr Yr																					
Installation Schedule:																					
Pr Yr	DEVELOPMENT STATU	S/MAJOF	R DEVEL	.OPMEN	T MILES'	TONES:															
Pr Yr																					
Pr Yr																					
Pr Yr																					
Pr Yr																					
Pr Yr																					
Totals	Installation Schedule:																				
Inputs   Outputs   Outpu			1			4	1			4	1				F		2	4 1		005	- 4
Outputs         FY 2006         FY 2007         FY 2008         FY 2009         To Totals           Inputs         1         2         3         4         1 <td>Inputs</td> <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 1</td> <td>2</td> <td>3</td> <td>4</td>	Inputs	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4 1	2	3	4
The part of the property of																					
The part of the property of				•001				• • • •			-							_			
Inputs Outputs  ADMINISTRATIVE LEADTIME: Contract Dates: FY 2002  ADMINISTRATIVE LEADTIME: FY 2003  O Months FY 2004  PRODUCTION LEADTIME: O Months FY 2004		1			4	1			4	1	FY 2		4	1		3	4				Totals
METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 0 Months PRODUCTION LEADTIME: 0 Months Contract Dates: FY 2002 FY 2003 FY 2004	Inputs	1		3		•				•	2	3		-	-	3		Complete			0
Contract Dates: FY 2002 FY 2003 FY 2004																					
		NTATION		FY 2002			ADMINI					0 Months				LEADTI	ME:	0 Months			
Delivery Date. F1 2002 F1 2005 F1 2004	Delivery Date:			FY 2002					FY 2003					FY 2							

# INDIVIDUAL MODIFICATION Date: February 2002

MODIFICATION TITLE (Cont): Prior Completed Mods [MOD 2] 0-00-00-0000

		2000																		
		Prior	FY 2			2007	Т		TOT											
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity																				
Installation Kits		146.2																		146.2
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
• •																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		146.2		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		146.2

								INDIVI	DUAL M	ODIFICA	TION				Γ	Date:		February	2002	
MODIFICATION TITLE:	Battlefiel	ld Comba	t Identific	cation Syst	ems [MC	DD 3] 0-00	-00-0000	)												
MODELS OF SYSTEM A	FFECTE	D: M48A	.5/M60A1																	
DESCRIPTION/JUSTIFIC	ATION:																			
Funds were provided	to PM	Combat	ID as d	lirected.																
	~ ~		0 D. FEL V	- 1																
DEVELOPMENT STATU	S/MAJOF	R DEVEL	OPMEN	Γ MILEST	ONES:															
Installation Schedule:	Pr Yr		FY 2	2001			FY 2	2002			FY 2	003			FY 20	004			FY 2005	
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3 4
Inputs																				
Outputs																				
		FY 2	2006			FY 2				FY 20	008			FY 200	)9			То		Totals
To a de	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		Complete		0
Inputs Outputs																				0
METHOD OF IMPLEMEN	NTATION		PM BCIS		1	ADMINIS				0	Months			ODUCT	ION LE	ADTIM	E:	0 Months		
Contract Dates: Delivery Date:			FY 2002 FY 2002					FY 2003 FY 2003						2004						
Delivery Date:			1°1 2002					· i ∠003					гĭ	2004						

Date:

February 2002

MODIFICATION TITLE (Cont): Battlefield Combat Identification Systems [MOD 3] 0-00-00-0000

	FY	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY :	2006	FY 2	2007	T	С	ТОТ	AL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity		0.2																		0.2
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.2		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.2

Date:

February 2002

MODIFICATION TITLE: AVLB Common Chassis Mod [MOD 4] 1-97-05-4531

MODELS OF SYSTEM AFFECTED:

## DESCRIPTION/JUSTIFICATION:

1. AVLB COMMON CHASSIS MOD: To complete application of 7 each Modification Work Orders (MWOs) on All AVLBs needing one or more modifications. Armored Top Loading Air Cleaner and Air Induction System Improvements (Clean Air) improves reliability and extends engine life. AN/VVS-2 Driver's Night Viewer (DNV) enhances tactical night operations. Smoke Grenade Launcher allows the AVLB to maneuver under cover of obscure smoke in a tactical environment. New Vision Cupola and Security Locking Device improves closed hatch vision and vehicle security. Engine Smoke Generating System provides a second source of obscuring smoke in a tactical environment. These MWOs are required on AVLBs to bring them up to the current supportable configuration. The MWOs will be installed on Active Component and high priority War Reserve vehicles first.

## DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Aug 98, TDP Review

Mar 99, Fleet Assessment

Sept 01, Installation Validation/Verification

Installation Schedule:																					
	Pr Yr		FY	2001			FY	2002			FY 2	2003			FY 20	04			FY 200	)5	
	Totals	1	2	. 3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs							13	13	13	12	12	13	13	16	16	16	17	13	12	13	
Outputs								13	13	13	12	12	13	13	16	16	16	17	13	12	13
		FY	2006			FY:	2007			FY :	2008			FY 20	09			To			Totals
	1	2	3	4	. 1	2	3	4	1	2	3	4	1	2	3	4	Cor	nplete			
Inputs																					192
Outputs																					192
METHOD OF IMPLEM	ENTATION	N:	Contract	or/Depot		ADMINI	STRATI	VE LEAD	TIME:		3 Months			PRODUCT	TON LEA	DTIME:	91	Months			
Contract Dates:			FY 2002	. 1	/Iar 02			FY 2003	De	c 02				FY 2004	Dec 0	)3					
Delivery Date:			FY 2002	I	Dec 02			FY 2003	Sep	03				FY 2004	Sep 0	4					
									_						_						

Date:

February 2002

MODIFICATION TITLE (Cont): AVLB Common Chassis Mod [MOD 4] 1-97-05-4531

	FY	2000																		
	and l	Prior	FY	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY	2006	FY:	2007	Т	C	TOT	ΓAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	52				50		65		25										192	
Installation Kits		0.9				0.6		0.8		0.2										2.5
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Govt Support		0.8				0.2		0.2		0.2										1.4
Contract Engineering		0.4																		0.4
Pre-Conversion Contractor																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits	52	0.1																	52	0.1
FY 2001 - Kits																				
FY 2002 Equip Kits					50	0.4													50	0.4
FY 2003 Equip Kits							65	0.5											65	0.5
FY 2004 Equip Kits									25	0.2									25	0.2
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment	52	0.1		0.0	50	0.4	65	0.5	25	0.2		0.0		0.0		0.0		0.0	192	1.2
Total Procurement Cost		2.2		0.0		1.2		1.5		0.6		0.0		0.0		0.0		0.0		5.5

Exh	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	nte:	F	ebruary 2002		
Appropriation/Budget Act Procurement of W&TCV, Art	•	t vehicles				P-1 Item Nom M1		ANK (MOD) (G	A0700)			
Program Elements for Co	de B Items:			Code:	Other Relat	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	610.2	26.0	29.4	55.5	81.2	191.4	531.1	575.2	550.7	479.0	1993.9	5123.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	610.2	26.0	29.4	55.5	81.2	191.4	531.1	575.2	550.7	479.0	1993.9	5123.7
Initial Spares												
Total Proc Cost	610.2	26.0	29.4	55.5	81.2	191.4	531.1	575.2	550.7	479.0	1993.9	5123.7
Flyaway U/C												
Wpn Sys Proc U/C			·	·	·							

This budget line is for applying user-approved modifications to fielded Abrams tanks. Notable survivability improvements include frontal and side armor upgrades and the Under Armor Auxiliary Power Unit (UAAPU). The Abrams-Crusader Common Engine (ACCE) program is the centerpiece of efforts to address the growing problem of parts obsolescence. Key safety improvements include the Driver's Hatch Interlock and the Eyesafe LASER Range Finder (ELRF). The sole environmental improvement is the effort to replace halon, a known ozone-depleting chemical, in the tank's fire extinguishing systems. These modifications collectively support the legacy transition path of the Transformation Campaign Plan (TCP).

## Justification:

FY03 funding procures numerous components and required safety modifications in support of the M1A1 AIM, M1A2 SEP Upgrade, and M1A2 SEP Retrofit production lines. These modifications correct or alleviate tank operational deficiencies identified during testing, training exercises, or combat in Operation Desert Storm.

Exhibit P-40M, Bu	ıdget Item Justificatio	on Sheet				Dat	e:	F	ebruary 2002		
Appropriation/Budget Activity/S Procurement of W&TCV, Art	erial No: ny /1/Tracked combat vehicles				P-1 Item Nomeno	clature	M1 ABRAMS	TANK (MOD) (0	GA0700)		
Program Elements for Code B Ite	ems:		Code:	Other Related l	Program Elements:	:					
Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Halon Replacement											
1-92-05-4411	Environmental	9.9	0.6	1.0	1.0	1.1	1.2	1.3	1.4	37.3	54.8
Driver's Hatch Interlock (D	HI)										
1-97-05-4520	Safety	24.8	1.4	2.4	2.0	4.2	5.3	5.4	5.5	3.3	54.3
Vehicle Intercommunications	System (VIS)										
1-92-05-4412	Legislative Compl	51.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.6
Battlefield Combat I.D. Sys	etem (BCIS)										
1-98-05-4543	Operational	2.1	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
Precision Lightweight GPS R	eceiver (PLGR)										
1-92-05-4417	Manprint	1.4	0.9	0.9	0.9	0.9	1.0	1.0	1.0	29.7	37.7
Block G Mods											
1-99-05-4554	Deficiency Correct	54.8	1.5	1.8	1.8	1.6	1.5	1.5	1.4	3.7	69.6
Pulse - Jet System (PJS)											
1-92-05-4475	Operational	39.4	5.5	5.9	3.9	6.1	6.4	6.5	5.7	162.0	241.4
FBCB2 Upgrade											
1-96-05-4516	Operational	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	4.5	7.5
External Auxiliary Power U	Jnit (EAPU)										
1-85-05-4057	Operational	60.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.5
NBC Fire Warning (NBCFV	W)										
1-97-05-4524	Safety	0.2	0.0	0.6	0.8	0.8	0.8	0.8	0.8	2.6	7.4

Exhibit P-40M, Bu	dget Item Justificatio	n Sheet				Dat	e:	F	ebruary 2002		
Appropriation/Budget Activity/Se Procurement of W&TCV, Arm	rial No:				P-1 Item Nomenc	lature	M1 ABRAMS	TANK (MOD) (C	•		
Program Elements for Code B Ite	ns:		Code:	Other Related l	Program Elements:						
Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Hand - Held Fire Extinguishe	er (HHFE)										
1-97-05-4525	Safety	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Abrams Field Mods											
1-97-05-4534	Deficiency Correct	8.3	3.4	1.1	1.1	1.4	1.2	1.2	1.3	10.9	29.9
Frontal Armor Upgrade											
1-98-05-4545	Operational	0.0	0.0	9.1	19.8	89.3	77.6	84.2	85.7	505.2	870.9
Improved Turret Side Armor											
1-99-05-4555	Operational	0.0	0.5	1.7	2.3	7.6	8.0	8.3	9.0	0.0	37.4
Eyesafe Laser Rangefinder	(ESLRF)										
1-99-05-4563	Safety	0.0	6.3	6.6	8.3	7.3	7.5	5.1	3.8	29.1	74.0
Abrams Crusader Common E	ngine (ACCE)										
1-00-05-0014	Operational	0.0	0.0	0.0	98.0	265.5	248.0	245.8	244.1	0.0	1101.4
Electronics Obsolescence											
1-00-05-0015	Operational	0.0	8.9	22.1	23.2	30.4	34.9	40.7	41.2	1019.1	1220.5
Under Armor Auxiliary Power	Unit (UAAPU)										
1-98-05-4545	Operational	0.0	5.3	0.0	6.8	65.1	78.2	79.8	44.5	42.0	321.7
Support											
0-00-00-0000	Operational	2.3	17.1	25.5	9.4	35.4	34.2	20.4	20.8	103.5	268.6
M1A1D Retrofit											
1-98-05-4542	Operational	24.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.5

GA0700 M1 ABRAMS TANK (MOD) Item No. 18 Page 3 of 22 125 Exhibit P-40M Budget Item Justification Sheet

	, Budget Item Justific	andii Sileet			D 1 E 27	1		Fe	ebruary 2002		
Appropriation/Budget Acti Procurement of W&TC	ivity/Serial No: V, Army /1/Tracked combat vehicles				P-1 Item Nomeno	elature	M1 ABRAMS	TANK (MOD) (C	GA0700)		
Program Elements for Cod	le B Items:		Code:	Other Related F	Program Elements:						
Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
M829E3 Ballistic Soluti	ion										
1-01-05-0011	Operational	0.0	0.0	0.0	2.1	2.8	3.5	1.8	0.3	0.5	11.0
Contingency Armor											
2-01-05-0001	Operational	0.0	0.0	0.0	0.0	1.0	55.1	35.9	2.8	23.8	118.6
Far Target Locator											
0-00-00-0000	Operational	0.0	0.0	0.0	9.5	10.1	10.3	10.5	9.2	0.5	50.1
Prior Year Closed Modi	ifications										
0-00-00-0000		385.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	385.9
Totals		665.7	55.5	81.2	191.4	531.1	575.2	550.7	479.0	1977.7	5107.5

## INDIVIDUAL MODIFICATION Date: February 2002

MODIFICATION TITLE: Pulse - Jet System (PJS) [MOD 7] 1-92-05-4475

MODELS OF SYSTEM AFFECTED: IPM1 = 0, M1A1 = 4327, M1A2 = 228, TOTAL = 4555

## DESCRIPTION/JUSTIFICATION:

PJS improves the engine air filtration system used on the Abrams tanks by using air pressure to remove dust from air filters. This reduces operating costs by reducing the need for scheduled maintenance. The procurement quantities shown include 180 PJS kits procured with FY97 OMA funds.

## DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Preliminary Design Review.......PLANNED: 2Q92......ACCOMPLISHED: 2Q92
Critical Design Review.......PLANNED: 3Q92......ACCOMPLISHED: 3Q92
Contractor Test & Eval......PLANNED: 3Q93.....ACCOMPLISHED: 3Q93
Development Test & Eval.....PLANNED: 3193.....ACCOMPLISHED: 3Q93
Initial Operational Test & Eval.....PLANNED: 4Q93.....ACCOMPLISHED: 4Q93
IPR Production Decision......PLANNED: 4Q93.....ACCOMPLISHED: 4Q93
TDP Available........PLANNED: 2Q96........ACCOMPLISHED: 2Q96

#### Installation Schedule:

	Pr Yr	FY 2001				FY 2002				FY 2003					FY 20	004		FY 2005				
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs	694	33	33	34	35	33	33	34	35	20	20	20	20	33	33	34	35	33	33	34	35	
Outputs	684	33	33	34	35	33	33	34	35	33	33	34	35	33	33	34	35	33	33	34	35	

	FY 2006		FY 2007				FY 2008					FY 20	009		To	Totals		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	33	33	34	35	28	29	29	29									2811	4375
Outputs	33	33	34	35	33	33	34	35									2926	4555

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 24 Months

Contract Dates: FY 2002 FY 2003 FY 2004

24 Months

PRODUCTION LEADTIME: 24 Months

Delivery Date: FY 2002 FY 2003 FY 2004

Date:

February 2002

MODIFICATION TITLE (Cont): Pulse - Jet System (PJS) [MOD 7] 1-92-05-4475

	FY 2000																			
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2006		FY 2007		T	C	TOT	ΓAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity	694		135		135		80		135		135		135		115		2811		4375	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		35.3		4.8		5.2		3.2		5.4		5.6		5.7		4.9		141.5		211.6
Equipment, Nonrecurring																				
Engineering Change Orders																				
Testing																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits	684	4.1																	684	4.1
FY 2001 Kits			135	0.7															135	0.7
FY 2002 Equip Kits					135	0.7													135	0.7
FY 2003 Equip Kits							135	0.7											135	0.7
FY 2004 Equip Kits									135	0.7	105	0.0							135	0.7
FY 2005 Equip Kits											135	0.8	105	0.0					135	0.8
FY 2006 Equip Kits													135	0.8	125	0.0			135	0.8
FY 2007 Equip Kits															135	0.8	2026	20.5	135	0.8
TC Equip- Kits																	2926	20.5	2926	20.5
Total Installment	684	4.1	135	0.7	135	0.7	135	0.7	135	0.7	135	0.8	135	0.8	135	0.8	2926	20.5	4555	29.8
Total Procurement Cost		39.4		5.5		5.9		3.9		6.1		6.4		6.5		5.7		162.0		241.4

						1	INDIVI	DUAL M	ODIFICA	TION				D	ate:	Fe	bruary 2	002		
MODIFICATION TITLE:	Frontal Ar	mor Upg	rade [MO	D 13] 1-9	8-05-4545															
MODELS OF SYSTEM A	FFECTED	: IPM1 =	0, M1	A1 = 790	M1A2 = 0	TOTAL	: = 790													
DESCRIPTION/JUSTIFIC	CATION:																			
This modification is f	or replac	ing exi	sting tar	nk fronta	al armor wi	th improved	l armor	:.												
DEVELOPMENT STATUS	S/MAJOR	DEVELO	OPMENT	MILESTO	ONES:															
N/A (Retrofit progra	/A (Retrofit program to put Improved Frontal Armor onto M1A1 tanks.)																			
( i	r	r				,														
Installation Schedule:																				
Instanation Schedule.	Pr Yr		FY 20	001		FY 20	002			FY 20	003			FY 20	04			FY 200	5	
	Totals	1	2	3	4	1 2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs												5	11	11	11	12	33	34	34	34
Outputs																5	11	11	11	12
		FY 2	006		F	FY 2007			FY 20	008			FY 20	)09			То		7	Γotals
	1	2	3	4	1	2 3	4	1	2	3	4	1	2	3	4	Con	nplete			
Inputs	33	34	34	34		34 34	34	33	34	34	34	33	34	34	34		65			790
Outputs	33	34	34	34	33	34 34	34	33	34	34	34	33	34	34	34		200			790
METHOD OF IMPLEMENT Contract Dates:	NTATION:		Contractor Y 2002		ADM	INISTRATIVI F	E LEAD Y 2003	TIME:	0	Months			RODUCT Y 2004	ΓΙΟΝ LEA	ADTIME:	: 0 N	Months			
Delivery Date:			Y 2002				Y 2003						Y 2004							

Date:

February 2002

MODIFICATION TITLE (Cont): Frontal Armor Upgrade [MOD 13] 1-98-05-4545

	FY	2000																		
	and l	Prior	FY 2	2001	FY:	2002	FY 2	2003	FY :	2004	FY 2	2005	FY 2	2006	FY 2	2007	Т	C	ТОТ	TAL .
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity							5		45		135		135		135		335		790	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment								19.8		89.3		77.6		84.2		85.7		505.2		861.8
Equipment, Nonrecurring						9.1														9.1
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits									5										5	
FY 2005 Equip Kits											45								45	
FY 2006 Equip Kits													135						135	
FY 2007 Equip Kits															135				135	
TC Equip- Kits																	470		470	
Total Installment		0.0		0.0		0.0		0.0	5	0.0	45	0.0	135	0.0	135	0.0	470	0.0	790	0.0
Total Procurement Cost		0.0		0.0		9.1		19.8		89.3		77.6		84.2		85.7		505.2		870.9

MODELS OF SYSTEM DESCRIPTION/JUSTIFI This modification is	E: Eyesafe Laser Rangefü AFFECTED: IPM1 = 0, ICATION:	mder (ESLRF) [MOD M1A1 = 2655	M1A2 = 547	TOTAL = 320								
DESCRIPTION/JUSTIFI	<u> </u>	M1A1 = 2655	M1A2 = 547	TOTAL - 320	2							
This modification is	ICATION:			101AL - 320	2							
	s for an improved LA: ewmen from eye dam						exercises	s to proce	ed without t	he string	gent safety p	precautions
	US/MAJOR DEVELOPM .1 ESLRF program		of the M1A2	? Upgrade ESL	RF progra	nm. All dev	elopmei	nt, testin	g and decis	ion mile	estones are	complete.
Installation Schedule:												
		FY 2001		2002	1	FY 2003	4		FY 2004		1	FY 2005
	Totals 1	2 3 4	1 2	3 4	1	2 3	4	1	2 3	4	1	2 3
Inputs	73	73 73 73	65 66	66 66	120	120 120	120	120	120 120	120	120	120 120

GA0700		

M1 ABRAMS TANK (MOD)

METHOD OF IMPLEMENTATION:

Inputs

Outputs

Contract Dates:

Delivery Date:

FY 2006

60

Contractor Team

FY 2002

FY 2002

60

60

FY 2008

3 Months

FY 2009

FY 2004

FY 2004

PRODUCTION LEADTIME:

DEC 00

SEP 01

FY 2007

30

30

30

30

3

30

30

ADMINISTRATIVE LEADTIME:

30

30

FY 2003

FY 2003

Totals

3202

3202

To

847

967

9 Months

Complete

Date:

February 2002

MODIFICATION TITLE (Cont): Eyesafe Laser Rangefinder (ESLRF) [MOD 15] 1-99-05-4563

	FY:	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	Т	C	TOT	`AL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity			292		263		480		480		480		240		120		847		3202	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment				6.1		5.6		5.9		6.0		6.2		4.0		2.8		20.7		57.3
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits			157	0.2															157	0.2
FY 2002 Equip Kits					135	1.0													135	1.0
FY 2003 Equip Kits							623	2.4											623	2.4
FY 2004 Equip Kits									480	1.3									480	1.3
FY 2005 Equip Kits											480	1.3							480	1.3
FY 2006 Equip Kits													240	1.1					240	1.1
FY 2007 Equip Kits															120	1.0			120	1.0
TC Equip- Kits																	967	8.4	967	8.4
Total Installment		0.0	157	0.2	135	1.0	623	2.4	480	1.3	480	1.3	240	1.1	120	1.0	967	8.4	3202	16.7
Total Procurement Cost		0.0		6.3		6.6		8.3		7.3		7.5		5.1		3.8		29.1		74.0

Date:

February 2002

MODIFICATION TITLE: Abrams Crusader Common Engine (ACCE) [MOD 16] 1-00-05-0014

MODELS OF SYSTEM AFFECTED: IPM1 = 0, M1A1 = 0, M1A2 = 1015, TOTAL = 1015

### DESCRIPTION/JUSTIFICATION:

This modification is intended to reduce the Operating and Support (O&S) cost of the Abrams Tank engine. It will equip the active component Abrams fleet with a lighter, more reliable, more fuel efficient and easier to repair engine. Note that the cost of installation is included in the hardware cost.

### DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Preliminary Design Review......PLANNED: 1Q01.....ACCOMPLISHED: 3Q01

Critical Design Review........PLANNED: 4Q01......ACCOMPLISHED:
Development Test & Eval......PLANNED: 4Q03......ACCOMPLISHED:
IPR Decision (LRIP)......PLANNED: 4Q03......ACCOMPLISHED:
MWO Approved.......PLANNED: 3Q04......ACCOMPLISHED:

T . 1		~ 1			
Instal	lation	Ser	ned	11	ρ.

Inputs Outputs

Inputs Outputs

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

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

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 24 Months

Contract Dates: FY 2002 FY 2003 FY 2004

ADMINISTRATIVE LEADTIME: 24 Months

FY 2004

Delivery Date: FY 2002 FY 2003 FY 2004

Date:

February 2002

MODIFICATION TITLE (Cont): Abrams Crusader Common Engine (ACCE) [MOD 16] 1-00-05-0014

	FY:	2000																		
	and l	Prior	FY 2	2001	FY:	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	T	C	ТОТ	AL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity							60		238		239		239		239				1015	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment								98.0		265.5		248.0		245.8		244.1				1101.4
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 – Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		0.0		0.0		98.0		265.5		248.0		245.8		244.1		0.0		1101.4
1 out 1 tocuroment cost		0.0		0.0		0.0		70.0		205.5		240.0		475.0		2-7-7.1		0.0		1101.7

Date:

February 2002

MODIFICATION TITLE: Electronics Obsolescence [MOD 17] 1-00-05-0015

MODELS OF SYSTEM AFFECTED: M1A1 and M1A2

### DESCRIPTION/JUSTIFICATION:

The M1A1 electronics uses 1980s or earlier technology. The turret network box (TNB) and the hull network box (HNB) are key electrical system components. Both have numerous obsolete parts that may be replaced only through cannibalization of discarded components. Cannibalization is not a viable means to sustain the Abrams tanks until 2030. Replacing the analog TNBs and HNBs with new digital units eliminates the associated obsolescence and makes it easy to add a built-in-test capability to support the Force XXI maintenance structure.

The Abrams M1A2 Continuous Electronics Enhancement Program (CEEP) is intended to upgrade the M1A2 electronic system components following a five-year cycle.

### DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Redesigned TNB: Preliminary Design Review...PLANNED: 2098....ACCOMPLISHED: 2198

Critical Design Review......PLANNED: 2Q00....ACCOMPLISHED: 2Q00 Developmental Test & Eval...PLANNED: 2Q00....ACCOMPLISHED: 2Q00

IPR Decision.....PLANNED: 1Q01

Redesigned HNB: Preliminary Design Review...PLANNED: 2Q00....ACCOMPLISHED: 2Q00

Critical Design Review.....PLANNED: 1Q01 Developmental Test & Eval...PLANNED: 1Q01

IPR Decis Installation Schedule:	10n	PI	LANNE	.D: 2Q(	)1																
	Pr Yr		FY	2001			FY	2002			FY:	2003			FY	2004			FY 2	2005	
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	. 3	3 4	4 1	2	3	4
Inputs																					
Outputs																					
		FY	2006			FY 2	2007			FY	2008			FY :	2009		_	To			Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3		1	Complete			
Inputs																					0
Outputs																					
METHOD OF IMPLEME	NTATION					ADMINI					24 Montl	18				EADTIN	1E:	24 Month	15		
Contract Dates:			FY 2002					FY 2003						FY 2004							
Delivery Date:			FY 2002					FY 2003					]	FY 2004							

Date:

February 2002

MODIFICATION TITLE (Cont): Electronics Obsolescence [MOD 17] 1-00-05-0015

	FY	2000																		
	and	Prior	FY 2	2001	FY:	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY :	2006	FY 2	2007	Т	C	TO	ΓAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity																				
Installation Kits						22.1		23.2		30.4		34.9		40.7		41.2		1019.1		1211.6
Installation Kits, Nonrecurring				8.9																8.9
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Contractor Support																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
T . 17 . 11		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		8.9		22.1		23.2		30.4		34.9		40.7		41.2		1019.1		1220.5

Date:

February 2002

MODIFICATION TITLE: Under Armor Auxiliary Power Unit (UAAPU) [MOD 18] 1-98-05-4545

MODELS OF SYSTEM AFFECTED: IPM1 = 0. M1A1 = 0. M1A2 = 966 TOTAL = 966

### DESCRIPTION/JUSTIFICATION:

The UAAPU is a small auxiliary engine that is built-in to the M1A2 SEP tank. It may be used to power the tank electrical and hydraulic systems without operating the main engine. This is particularly useful when the tank is in "silent watch" mode since it is more difficult for the enemy to detect the tank's audible and heat signals. Operating and Support (O&S) cost savings naturally accrue from the reduced main engine operating hours.

Note that the cost of installations is included in the hardware cost.

### DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Lab Verif Test of Redesigned Turbine and Gears...PLANNED: 4Q99.....ACCOMPLISHED: 4Q99

Mini Environmental Testing......PLANNED: 1Q00....ACCOMPLISHED: 1Q00 Six Pre-production Units Delivery......PLANNED: 1Q01....ACCOMPLISHED: 2Q01 Environmental Validation Retest......PLANNED: 2Q01.....ACCOMPLISHED: 2Q01 Four UAAPUs to Support DCX......PLANNED: 2Q01....ACCOMPLISHED: 2Q01

Limited Production Award.......PLANNED: 3002....ACCOMPLISHED:

FY 2002

# Installation Schedule:

Inputs Outputs

Inputs Outputs

Contract Dates:

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

Totals	To		2009	FY 2			2008	FY 2			2007	FY 2			2006	FY 2	
	Complete	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1
(																	
(																	

FY 2004

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 0 Months PRODUCTION LEADTIME: 0 Months FY 2003

Delivery Date: FY 2002 FY 2003 FY 2004

Date:

February 2002

MODIFICATION TITLE (Cont): Under Armor Auxiliary Power Unit (UAAPU) [MOD 18] 1-98-05-4545

	FY	2000																		
	and	Prior	FY:	2001	FY :	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	Т	C	TOT	ΓAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity							22		206		242		242		132		122		966	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment								6.8		65.1		78.2		79.8		44.5		42.0		316.4
Equipment, Nonrecurring				5.3																5.3
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		5.3		0.0		6.8		65.1		78.2		79.8		44.5		42.0		321.7
		0.0		2.5		0.0		0.0		00.1		, 0.2				5		.2.9		52111

			INDIV	DUAL MODIFICATION	N	Date:	February 2	002
MODIFICATION TITLE:	Support [MOD 19] 0-00-0	00-0000						
MODELS OF SYSTEM A	FFECTED: Whole Fleet							
DESCRIPTION/JUSTIFIC	CATION:							
Support encompasses (TPF), and Special Te				ication efforts as we	ll as contractor Syst	em Technical Support (	STS), Total Pa	ackage Fielding
Modification support	is synergistically inte	ertwined with rela	ated efforts funded in	GA0750 [M1A2 SEI	Production] and G	A0730 [M1A2 SEP Retr	ofit].	
DEVELOPMENT STATU	S/MAJOR DEVELOPME	NT MILESTONES:						
N/A								
N/A								
Installation Schedule:								
	Pr Yr FY	2001	FY 2002	]	FY 2003	FY 2004		FY 2005
	Totals 1	2 3 4	1 2 3	4 1	2 3 4	1 2 3	4 1	2 3 4
Inputs								
Outputs								
	FY 2006		FY 2007	FY 2008		FY 2009	To	Totals
		3 4 1	2 3 4	1 2	3 4 1	2 3 4	Complete	Totals
Inputs							·	0
Outputs								
METHOD OF IMPLEMEN			ADMINISTRATIVE LEAD			RODUCTION LEADTIME:	0 Months	
Contract Dates:	FY 200		FY 2003			Y 2004		
Delivery Date:	FY 200	2	FY 2003		FY	Y 2004		

Date:

February 2002

MODIFICATION TITLE (Cont): Support [MOD 19] 0-00-00-0000

	FY	2000																		
	and	Prior	FY 2	2001	FY:	2002	FY 2	2003	FY:	2004	FY 2	2005	FY 2	2006	FY 2	2007	Т	C	TOT	ΓAL
	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		2.3		17.1		25.5		9.4		35.4		34.2		20.4		20.8		103.5		268.6
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		2.3		17.1		25.5		9.4		35.4		34.2		20.4		20.8		103.5		268.6
10tai Procurement Cost		2.3		1/.1		25.5		9.4		33.4		34.2		20.4		20.8		105.5		208.0

								INDIVI	DUAL N	IODIFIC	ATION					Date:		February 2	2002		
MODIFICATION TIT	LE: Far Targe	t Locator	[MOD 23	3] 0-00-0	0-0000																
MODELS OF SYSTEM	M AFFECTED	: IPM1	= 0, $M$	11A1 =	655, M	11A2 = 0	TOT	AL = 65	55												
DESCRIPTION/JUSTI	IFICATION:																				
This is a system the upgraded tank concommand Brigade system will interface.	nmander's p e and Below	anel (U / (FBCI	TCP) th B2) soft	nat has ware. H	digital d Ioweve	circuits i	in place Army d	of obso	olete ana o conve	alog cor ert more	nponen M1A1	ts. The l tanks to	FTL sys	stem wo	rks ind	ependen	tly of th	e Force	XXI Bat	tle	
DEVELOPMENT STA	ATUS/MAJOR	DEVEL	OPMENT	MILEST	ΓONES:																
Installation Schedule:	Pr Yr		FY 2	001			FY 2	2002			EV :	2003			EV	2004			FY 20	05	
	Totals	1	2	3	4	1	2.	2002	4	1	2		4	1	2	2004	4	1	2	3	4
Inputs	101115	_	_	J		-	_			33	34	-	34	33	34			33	34	34	34
Outputs														33	34	34	34	33	34	34	34
		FY 2				FY 2				FY 2					2009		_	То			Totals
Inputs	33	2 34	3 34	4 34	1 28	2 29	3 29	4 29	1	2	3	4	1	2	3	4	C	omplete			655
Inputs Outputs	33	34	34	34 34	26 33		34		28	29	29	29									655

Contract Dates:

Delivery Date:

METHOD OF IMPLEMENTATION:

FY 2002

FY 2002

0 Months

ADMINISTRATIVE LEADTIME:

FY 2003

FY 2003

0 Months

PRODUCTION LEADTIME:

FY 2004

FY 2004

Date:

February 2002

MODIFICATION TITLE (Cont): Far Target Locator [MOD 23] 0-00-00-0000

	FY:	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	T	C	ТОТ	AL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Kit Quantity							135		135		135		135		115				655	
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment								9.5		9.6		9.8		10.0		8.7				47.6
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits																				
FY 2001 - Kits																				
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits									135	0.5									135	0.5
FY 2005 Equip Kits											135	0.5							135	0.5
FY 2006 Equip Kits													135	0.5					135	0.5
FY 2007 Equip Kits															135	0.5			135	0.5
TC Equip- Kits																	115	0.5	115	0.5
Total Installment		0.0		0.0		0.0		0.0	135	0.5	135	0.5	135	0.5	135	0.5	115	0.5	655	2.5
Total Procurement Cost		0.0		0.0		0.0		9.5		10.1		10.3		10.5		9.2		0.5		50.1

								INDIVI	DUAL M	ODIFIC	ATION					Date:		February 2	2002	
MODIFICATION TITLE:	Prior Yea	ar Closed	Modifica	tions [MC	OD 24] 0-	00-00-000	0													
MODELS OF SYSTEM A	FFECTE	D:																		
DESCRIPTION/JUSTIFIC	ATION:																			
DEVELOPMENT STATU	S/MAJOI	R DEVEL	.OPMEN	T MILEST	ΓONES:															
Installation Schedule:																				
	Pr Yr		FY 2	2001			FY 2				FY 2				FY:	2004			FY 200:	5
Lunuta	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	3	4 1	2	3 4
Inputs Outputs																				
•																				
		FY 2				FY 2				FY 2				FY 2	009			То		Totals
Inputs	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	2	1	Complete		0
Outputs																				v
METHOD OF IMPLEMEN	NTATION		EX. 400-			ADMINIS				(	) Months				TION L	EADTIN	1E:	0 Months		
Contract Dates: Delivery Date:			FY 2002 FY 2002					FY 2003 FY 2003						Y 2004 Y 2004						
Denvery Date:			ri 2002					ri 2003					F	1 2004						

# INDIVIDUAL MODIFICATION Date: February 2002

MODIFICATION TITLE (Cont): Prior Year Closed Modifications [MOD 24] 0-00-00-0000

		2000	TT 7.	2001	FW. 6	2002	F77.7.4	2002		2004		2005	Y-17. /	2006	TOX Z	2005		16	mon	
	and Qty	Prior \$	FY 2 Qty	2001 \$	Qty	2002 \$	FY 2 Qty	2003 \$	FY 2	2004 \$	FY 2	2005 \$		2006 \$	Qty	2007	Qty	C \$	TOT Qty	FAL \$
RDT&E	Qty	3	Qıy	Þ	Qıy	Þ	Qıy	Þ	Qty	Þ	Qty	Þ	Qty	Þ	Qıy	2	Qıy	Þ	Qıy	Þ
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 2000 & Prior Equip Kits		385.9																		385.9
FY 2001 - Kits		303.7																		303.7
FY 2002 Equip Kits																				
FY 2003 Equip Kits																				
FY 2004 Equip Kits																				
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
To Equip Kits																				
	1																			
Total Installment		385.9		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		385.9
Total Procurement Cost		385.9		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		385.9

Exhi	bit P-40	, Budge	t Item J	ustifica	tion She	eet	Ι	Oate:	I	February 2002		
Appropriation/Budget Active Procurement of W&TCV, Army	-	t vehicles				P-1 Item Non M1		FIT (GA0720)				
Program Elements for Code	B Items:			Code:	Other Relate	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost				1.9	11.6							13.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)				1.9	11.6							13.4
Initial Spares												
Total Proc Cost				1.9	11.6							13.4
Flyaway U/C		·		·								
Wpn Sys Proc U/C												

The Abrams M1A1-D is an M1A1 Abrams Main Battle Tank that has been equipped with a digital applique command and control package consisting of an A-Kit (Upgraded Tank Commander's Panel/UTCP) with peripheral hardware, a B-Kit (Applique computer display and keyboard and a C-Kit (provides far target capability by integrating a North Finding Module (NFM) and a Digital Interface Unit (DIU) to process raw tank data and format messages for transmittal to the Applique computer. Selected tanks slated for this improvement will be modified to accept the Enhanced Position Locating and Reporting System, commonly referred to as the EPLRS radio. IAW the 17 August 2001 VCSA approved Abrams Recapitalization Program and MFR, Subject: Recapitalization Decision Briefings to VCSA and AAE Results, dated 10 December 2001, in FY03 the Army will consider an Abrams Recap growth path budget decision to Ground Recap Option 4a Revised which supports digitization of the Abrams M1A1 tanks for the remaining Active Component; Contingency Force (2ID, 1ID, 1AD). This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

#### **Justification:**

FY03 procures the digitization modification to enable the M1A1 to exchange digital command and control data in the Army's Common Operating Environment format used by the more advanced M1A2 SEP tanks and other members of the combined arms team. The M1A1-D conversion is a key component in the Army's plan to field the First Digital Division and will also significantly add to the "Useful Combat Life" of these vehicles.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/l Procurement of Tracked comb	of W&TCV, A				tem Nomenclatur ETROFIT (GA0720)			Weapon System T	Гуре:	Date: Februa	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
1. Upgraded Tank Commander's Panel (A K 2. Applique Computer (B-Kit) 3. Far Target (C-Kit) 4. EPLRS Integration (50% of Tanks) 5. M1A1D Kit Installation 6. Contractor Engineering 7. Government Support (including Test) 8. Special Tools & Test Sets 9. Training Device MODs 10. Total Package Fielding		\$000	Each	\$000	\$000 271 1400 212	Each	\$000	\$000 4630 1660 1790 388 295 624 721 332 723 403		\$000 34.296 30.182 32.545 14.370	\$000	Each	\$000
Total					1883			11566					

Contractor and Location   Contractor and L	Exhibit P-5a, Budget Procurement Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked combat vehicles	instory and raming	Weapon Syst	ет Туре:			em Nomenc		F	ebruary 2	:002
1. Upgraded Tank Commander's Panel (A K FY 2002 FY 2003 GDLS Sterling Heights, MI GDLS Sterling Heights, MI Sterling Heights, MI Sterling Heights, MI Sterling Heights, MI FY 2002 FY 2003 FY 2003 DE		Contractor and Location		Location of PCO	Award Date				Specs		RFP Issu Date
FY 2002   GDLS   Sterling Heights, MI   GDLS   Sterling Heights, MI   Sterling Heights, MI   Sterling Heights, MI   Sterling Heights, MI   GDLS   Sterling Heights, MI   Sterling Heights, MI   GDLS   Sterling Heights, MI   Sterling Heights, MI   GDLS   Sterling Heights, MI   Sterling			and Type			Delivery	Each	\$	Now?	Avail	Date
FY 2002   GDLS   Sterling Heights, MI   GDLS   Sterling Heights, MI   GDLS   Sterling Heights, MI   GDLS   Sterling Heights, MI   FY 2002   PM, FBCB2   Ft. Monmouth, NJ   PY 2003   PM, FBCB2   Ft. Monmouth, NJ   PY 2003   PM, FBCB2   Ft. Monmouth, NJ   PY 2004   Pt. Monmouth, NJ   PY 2005   Pt. Monmouth, NJ   PY 2006   PY 2007   GDLS   Sterling Heights, MI   Sterling Heights, MI   Sterling Heights, MI   PY 2003   PY 2003   PY 2004   PY 2005	1 Ungraded Tank Commander's Panel (A K										
Sterling Heights, MI   GDLS   Sterling Heights, MI   Sterling Heights, MI		GDLS	CPFF	TACOM, Warren, MI	Dec 01	Oct 02		35			
FY 2003   GDLS   Sterling Heights, MI   Ste				, , , , , ,							
2. Applique Computer (B-Kit) FY 2002 FY 2003 FY 2003 FY 2003 FY 2003 FY 2003 FY 2004 FY 2003 FY 2004 FY 2005 FY 2005 FY 2006 FY 2006 FY 2007 FY 2006 FY 2007 FY 2008 GDLS Sterling Heights, MI GDLS Sterling Heights, MI FY 2002 FY 2003 FY 2003 FY 2004 FY 2005 FY 2005 FY 2006 FY 2007 FY 2008 FY 2008 FY 2008 FY 2008 FY 2008 FY 2009 FY 20	FY 2003	GDLS									ı
FY 2002 FY 2003  S. Far Target (C-Kit) FY 2003  GDLS Sterling Heights, MI GDLS Sterling Heights, MI FY 2002 FY 2003  4. EPLRS Integration (50% of Tanks) FY 2003  Yarious Various Vari		Sterling Heights, MI									
Ft. Monmouth, NJ PM, FBCB2 Ft. Monmouth, NJ  3. Far Target (C-Kit) FY 2002 GDLS Sterling Heights, MI GDLS Sterling Heights, MI 4. EPLRS Integration (50% of Tanks) FY 2003  4. EPLRS ON Warren, MI FY 2003  4. EPLRS ON Warren, MI FY 2004 Various Var	2. Applique Computer (B-Kit)										
FY 2003	FY 2002		GFE	Ft. Monmouth, NJ	Dec 01	Oct 02		31			
Ft. Monmouth, NJ											
3. Far Target (C-Kit) FY 2002 GDLS Sterling Heights, MI GDLS Sterling Heights, MI GDLS Sterling Heights, MI  4. EPLRS Integration (50% of Tanks) FY 2002 Various Vario	FY 2003										
FY 2002   GDLS   Sterling Heights, MI   GDLS   Sterling Heights, MI   GDLS   Sterling Heights, MI   GDLS   Sterling Heights, MI   Sterl	2 For Torget (C Vit)	Ft. Monnouth, NJ									
Sterling Heights, MI GDLS Sterling Heights, MI 4. EPLRS Integration (50% of Tanks) FY 2002 Various		CDI S	CDEE	TACOM Warran MI	Dag 01	0~4.02		22			
FY 2003  4. EPLRS Integration (50% of Tanks)  FY 2002  Various  FY 2003  Various  Va	FT 2002		CFFF	TACOM, Wallell, MI	Dec 01	Oct 02		33			
Sterling Heights, MI	FY 2003										
FY 2002 Various Various FY 2003 Various	11 2000										
FY 2002 Various Various FY 2003 Various	4. EPLRS Integration (50% of Tanks)										
FY 2003  Various Various  Vari		Various			var			15			
Various		Various									
	FY 2003				var						
REMARKS:		Various									
REMARKS:											
REMARKS:											
REMARKS:											
REMARKS:											
REMARKS:											
REMARKS:											
REMARKS:											
REMARKS:											
	REMARKS:										

Exl	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	nte:	F	ebruary 2002		
Appropriation/Budget Ac Procurement of W&TCV, A		t vehicles				P-1 Item Nom SYS		NCEMENT PG	M: SEP M1A2	2 (GA0730)		
Program Elements for Co	ode B Items:			Code:	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty				16	25	31	43	52	74	87	91	419
Gross Cost				58.1	99.4	123.7	163.4	194.2	314.8	366.6	386.5	1706.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)				58.1	99.4	123.7	163.4	194.2	314.8	366.6	386.5	1706.7
Initial Spares												
Total Proc Cost				58.1	99.4	123.7	163.4	194.2	314.8	366.6	386.5	1706.7
Flyaway U/C												
Wpn Sys Proc U/C				3.6		4.0	3.8	3.7	4.3	4.2	4.2	

This program upgrades 419 M1A2 tanks to the newer SEP configuration. SEP refers to a System Enhancement Package which upgrades the M1A2's computer systems and its night vision capabilities. The SEP tank has better microprocessors; color flat panel displays, more memory capacity, better Soldier-Machine Interface (SMI), and a new open operating system designed to run the Army's Common Operating Environment (ACOE) software. Both the Gunner's Primary Sight (GPS) and the Commander's Independent Thermal Viewer (CITV) on the SEP tank include the improved thermal imaging capabilities of the new 2nd Generation Forward-Looking Infra-Red (FLIR) technology. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

### Justification:

FY03 funding procures 31 M1A2SEP Retrofits. The SEP Program enhances the combat effectiveness of the Abrams Tank Fleet while maintaining the key elements of the tank industrial base.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/F Procurement o Tracked comb	of W&TCV, A				tem Nomenclature ENHANCEMENT PO		.0730)	Weapon System T	Гуре:	Date: Februa	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
GED		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
SEP FLIR	A A				26606 11024	16 16	1663 689	38900 17407			49280 22071		1590 712
ESLRF	A				330	16	21	518	25	21	657		22
M1A2 Depot-Maintenance Pre-MOD					1720	2	860	21506	14	1537	27267	31	880
STS, TPF & ST/TS, Gov't Spt					18431			21026			24422		
Total					50111			00255			12260		
Total					58111			99357			123697		

opropriation/Budget Activity/Serial No: ocurement of W&TCV, Army / 1 / Tracked combat vehicles		Weapon Syste	em Type:		P-1 Line Ito SYSTEM ENH		lature: GM: SEP M1A2 (GA	.0730)		
BS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Iss Date
SEP										
FY 2001	GDLS Sterling Hgts, MI	SS/FFP	TACOM - Warren	Jun-01	Dec-02	16	1663	Yes		Sep-0
FY 2002	GDLS Sterling Hgts, MI	SS/FFP	TACOM - Warren	Jun-02	Dec-03	25	1556			
FY 2003	GDLS Sterling Hgts, MI	SS/FFP	TACOM - Warren	Jun-03	Dec-04	31	1590			
FLIR										
FY 2001		SS/FFP	CECOM	Jan-01	Jun-02	16	689	Yes		Sep-0
FY 2002		SS/FFP	CECOM	Nov-01	Jun-03	25	697			
FY 2003		SS/FFP	CECOM	Nov-02	Jun-04	31	712			
ESLRF										l
FY 2001	Litton Apopka, FL	SS/FFP	Acala	Dec 00	May 02	16	21	Yes		
FY 2002	TBS	SS/FFP	Acala	Jan 02	Jan 03	25	21			
FY 2003	TBS	C/FFP	Acala	Jan 03	Jan 04	31	22			

	FY 01 / 02 BUDGET PRO	DU	U <b>CTION</b>	SCH	[EDUL]	E		P-1 l SYS	Item N TEM I	omen ENH/	nclatur ANCE	e: MEN	T PG	M: SI	EP M	1A2 (	GA0	730)					]	Date:			Feb	ruary	2002			
												Fis	cal Y	ear 0	)1									F	iscal	Year	02					
				S E	PROC	ACCEP	BAL			_						endar										_	_	Year (	_			L A
	COST ELEMENTS  M F R	7	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
SE	D									$\dashv$		$\dashv$	-													╀			H			
SE	2	) F	FY 01	A	16	0	16		$\vdash$	$\dashv$			_			A										╆			Н			16
	2	_		A	25	0			$\Box$							А										$\vdash$		A	Н			25
	2	_	FY 03	A	31	0																				t		Λ				31
																																51
													$\neg$													Т			Г			
													$\neg$													Т			Г			
																										Г						
To	tal				72		72																									72
								O C T	N O V	D E C	J A N		M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R		M A Y	J U N	J U L	A U G	S E P	
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Exh	ibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	ite:	F	ebruary 2002		
Appropriation/Budget Acti Procurement of W&TCV, Arm	•	t vehicles				P-1 Item Nom ABF		ADE PROGR <i>A</i>	M (GA0750)			
Program Elements for Cod	e B Items:			Code:	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	340	120	120	100	104	103						887
Gross Cost	2192.9	688.1	690.9	563.9	648.2	586.9	96.5					5467.5
Less PY Adv Proc	804.3	259.9	260.7	273.8	256.5	210.6						2065.9
Plus CY Adv Proc	1064.2	260.7	373.7	172.8	194.4							2065.9
Net Proc (P-1)	2452.8	689.0	803.9	462.9	586.1	376.3	96.5					5467.5
Initial Spares	39.6	9.7	9.7	14.7	23.4	10.0	11.9	12.1	12.3	12.6	113.9	269.9
Total Proc Cost	2492.4	698.7	813.6	477.6	609.5	386.2	108.5	12.1	12.3	12.6	113.9	5737.4
Flyaway U/C	0.0	0.0	0.0	0.0	0.0	0.0						
Wpn Sys Proc U/C		5.7	5.8	5.6	6.2	5.7						

This is the production program for the M1A2 System Enhancement Program (SEP) tank, the successor to the M1A2, which was the Army's first fully digital ground combat system. The prime contractor is using depot refurbished M1 tank hulls supplied by the Government. Therefore, for each M1A2 SEP tank produced, there will be a corresponding decrease in the Army's M1 tank inventory. SEP refers to a System Enhancement Package which upgrades the M1A2's computer systems and its night vision capabilities. The first M1A2 SEP tank was delivered to the Government on 1 September 1999. The SEP tank has better microprocessors; color flat panel displays, more memory capacity, better Soldier-Machine Interface (SMI), and a new open operating system designed to run the Army's Common Operating Environment (ACOE) software. Both the Gunner's Primary Sight (GPS) and the Commander's Independent Thermal Viewer (CITV) on the SEP tank include the improved thermal imaging capabilities of the new 2nd Generation Forward-Looking Infra-Red (FLIR) technology. This system supports the legacy transition path of the Transformation Campaign Plan (TCP).

#### **Justification:**

FY03 procures 103 M1A2 SEP Upgrade vehicles. The Upgrade Program enhances the combat effectiveness of the Abrams Tank Fleet while maintaining the key elements of the tank industrial base.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/ Procurement of Tracked com	of W&TCV, A				tem Nomenclature JPGRADE PROGRA			Weapon System 7	Гуре:	Date: Februa	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	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
Basic Vehicle	A				261569	100	2616	293271	104		261826		2542
2. Armor					58046	120	484	62013	121	513	44221	48	922
<ul><li>3. H/TEU</li><li>4. Engine DECU/PROSE</li></ul>					30100	100	301	35873	104	345	24363	103	237
5. Transmission					24244	100	243	33691	104		24303 22160		216
6. Final Drive					1431	200	8	1489	208		1504		8
7. Fire Control					3084	100	31	3179	104		3211		32
8. Track					4356	15600	1	4483	16224		4530		1
9. Roadwheels					1759	3200	1	1816	3328		1835		1
10. Gun Mounts					3249	50	65	3379	52		3447	51	68
11. Gun					19752	100	198	11698	104	113	22536	103	219
12. Driver's Night Viewer					565	100	6	598	104	. 6	604	103	6
13. Basic Issue Items					920	100	10	956	104		966		10
14. MILSTRIPS/RIK					709	100	8	750	104	-	758		8
15. VIS					1272	100	13	1310	104	13	1323	103	13
16. Special Tools & Test Sets					8110			12383			12511		
<ul><li>17. System Technical Support (STS)</li><li>18. Government Support</li></ul>					22075 18014			55165 18335			56084 18705		
19. Auxiliary Services					2304			2345			2393		
20. Testing					6260			6371			6500		
21. Transportation (FDT)					409			433			438		
22. Total Package Fielding					7151			7569			7647		
23. II Gen FLIR					74331	100	744	76141	104	733	74143	103	720
24. Pre Mod Depot Maintenance					14170	100	142	14998	104		15154		148
25. GDLS SEP-S													
26. Program End Liabilities													
27. NonRecur Cost (Pilots, GFE Seed)													
28. Service Life Extension (SLE)													
Gross P-1 End Cost					563880			648246			586859		
Less: Prior Year Adv Proc					273812			256547			210591		
Net P-1 Full Funding Cost					290068			391699			376268		
Plus: P-1 CY Adv Proc					172848			194438			3.0230		
Initial Spares					14671			23390			9952		
Total					477587			609527			386220		

Exhibit P-5a, Budget Procuren	nent History and Planning							F	ebruary 2	.002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked combat vel	nicles	Weapon Syste	т Туре:			em Nomenc GRADE PROGE				
VBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. Basic Vehicle										
FY 2000	GDLS Sterling Hgts, MI	SS/FFP/M5	TACOM-Warren	Feb 00	Aug 00	120	2727	Yes		Jan 95
FY 2001	GDLS Sterling Hgts, MI	SS/FFP/M1	TACOM-Warren	Mar 01	Aug 01	100	2616	Yes		Sep 99
FY 2002	GDLS Sterling Hgts, MI	SS/FFP/M2	TACOM-Warren	Feb 02	Aug 02	104	2820	Yes		Sep 99
FY 2003	GDLS Sterling Hgts, MI	SS/FFP/M3	TACOM-Warren	Feb 03	Aug 03	103	2542	Yes		Sep 99
2. Armor										
FY 2000	Bechtel BXWT Idaho Falls, ID	SS/CPFF	Department of Energy	Jan 99	Feb 00	121	470	NA		NA
FY 2001	Bechtel BXWT Idaho Falls, ID	SS/CPFF	Department of Energy	Jan 00	Feb 01	120	484	NA		NA
FY 2002	Bechtel BXWT Idaho Falls, ID	SS/CPFF	Department of Energy	Jan 01	Feb 02	121	513	NA		NA
FY 2003	Bechtel BXWT Idaho Falls, ID	SS/CPFF	Department of Energy	Jan 02	Feb 03	48	922	NA		NA
4. Engine DECU/PROSE										
FY 2000	AlliedSignal Tucson, AZ	Option	TACOM-Warren	Jan 99	Feb 00	120	161	Yes		Sep 97
FY 2001	AlliedSignal Tucson, AZ	SS/FFP	TACOM-Warren	Jun 01	Jun 01	100	301	Yes		Sep 97
FY 2002	AlliedSignal Tucson, AZ	SS/FFP	TACOM-Warren	Jun 01	Feb 02	104	345	Yes		Sep 97
FY 2003	AlliedSignal Tucson, AZ	Option	TACOM-Warren	Feb 02	Feb 03	103	237	Yes		Sep 97

Exhibit P-5a, Budget Proc	curement History and Planning							Date: F	ebruary 2	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 1 / Tracked co	ombat vehicles	Weapon Systo	ет Туре:		P-1 Line Ite ABRAMS UPO	em Nomenc GRADE PROGR				
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Iss Date
5. Transmission										
FY 2000	Allison Transmission Div Indianapolis, IN	Option	TACOM-Warren	Feb 99	Feb 00	120	215	Yes		Dec 9
FY 2001	Allison Transmission Div Indianapolis, IN	FFP/CPFF	TACOM-Warren	Dec 00	Feb 01	100	243	Yes		Jun 9
FY 2002	Allison Transmission Div Indianapolis, IN	Option	TACOM-Warren	Dec 00	Feb 02	104	324	Yes		Jun 9
FY 2003	Allison Transmission Div Indianapolis, IN	Option	TACOM-Warren	Jan 02	Feb 03	103	216	Yes		Jun 9
6. Final Drive										
FY 2000	LOC Performance, Inc Plymouth, MI	C/FFP	TACOM-Warren	Dec 98	Feb 00	240	8	Yes		May 9
FY 2001	LOC Performance, Inc Plymouth, MI	Option	TACOM-Warren	Sep 00	Feb 01	200	8	Yes		May 9
FY 2002	LOC Performance, Inc Plymouth, MI	Option	TACOM-Warren	Feb 01	Feb 02	208	8	Yes		May 9
FY 2003	LOC Performance, Inc Plymouth, MI	Option	TACOM-Warren	Feb 02	Feb 03	206	8	Yes		May 9
7. Fire Control										
FY 2000	Various	Various	TACOM-ACALA	Various	Feb 00	120	23	Yes		Variou
FY 2001	Various	Various	TACOM-ACALA	Various	Feb 01	100	31	Yes		Variou
FY 2002	Various	Various	TACOM-ACALA	Various	Feb 02	104	31	Yes		Vario
FY 2003	Various	Various	TACOM-ACALA	Various	Feb 03	103	32	Yes		Vario

ment History and Planning							F	ebruary 2	002
vehicles	Weapon Syste	em Type:							
Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issi Date
Goodyear Tire & Rubber Akron, OH	SS-FFP	TACOM-Warren	Mar 99	Feb 00	18720	1	Yes		Dec 9
Goodyear Tire & Rubber Akron, OH	Option	TACOM-Warren	Sep 00	Feb 01	15600	1	Yes		Dec 9
Goodyear Tire & Rubber Akron, OH	Option	TACOM-Warren	Mar 01	Feb 02	16224	1	Yes		Dec 9
TBS	C-FFP	TACOM-Warren	Mar 02	Feb 03	16068	1	Yes		
Red River Army Depot Texarkana, TX	WR		Dec 99	Feb 00	3840	1	Yes		Sep 9
Red River Army Depot Texarkana, TX	WR		Sep 00	Feb 01	3200	1	Yes		Sep 9
Red River Army Depot Texarkana, TX	WR		Mar 01	Feb 02	3328	1	Yes		Sep 9
Red River Army Depot Texarkana, TX	WR		Feb 02	Feb 03	3296	1	Yes		Sep 9
Rock Island Arsenal/GDLS Rock Island, IL	WR	/1	Mar 99	Feb 00	60	43	Yes		NA
Rock Island Arsenal/GDLS Rock Island, IL	WR	/1	Jul 00	Feb 01	50	65	Yes		NA
Rock Island Arsenal/GDLS Rock Island, IL	WR	/1	Feb 01	Feb 02	52	65	Yes		NA
Rock Island Arsenal/GDLS Rock Island, IL	WR	/1	Apr 02	Feb 03	51	68	Yes		NA
	Goodyear Tire & Rubber Akron, OH TBS  Red River Army Depot Texarkana, TX Rock Island Arsenal/GDLS Rock Island, IL Rock Island Arsenal/GDLS Rock Island, IL Rock Island, IL Rock Island, IL Rock Island Arsenal/GDLS Rock Island, IL Rock Island, IL Rock Island Arsenal/GDLS	Contractor and Location  Contract Method and Type  Goodyear Tire & Rubber SS-FFP Akron, OH Goodyear Tire & Rubber Option Akron, OH Goodyear Tire & Rubber Option Akron, OH TBS  C-FFP  Red River Army Depot WR Texarkana, TX Rock Island Arsenal/GDLS Rock Island, IL Rock Island Arsenal/GDLS	Tehicles    Contractor and Location   Contract Method and Type	Contractor and Location  Contract Method and Type  Goodyear Tire & Rubber Akron, OH Goodyear Tire & Rubber Option TACOM-Warren Sep 00 Akron, OH Goodyear Tire & Rubber Option TACOM-Warren Mar 01 Akron, OH TBS  C-FFP TACOM-Warren Mar 01 TBS  C-FFP TACOM-Warren Mar 01 TACOM-Warren Mar 02  Red River Army Depot WR Texarkana, TX Red River Army Depot WR Red River Army Depot Texarkana, TX Red River Army Depot WR Red River Army Depot Texarkana, TX Red River Army Depot WR Red River Army Depot Texarkana, TX Red River Army Depot WR Red River Army Depot Texarkana, TX Red River Army Depot WR Red River Army Depot Texarkana, TX Rock Island Arsenal/GDLS	P-1 Line It ABRAMS LIPE  Contractor and Location  Contract Method and Type  Goodyear Tire & Rubber Akron, OH Goodyear Tire & Rubber Akron, OH Goodyear Tire & Rubber Akron, OH TBS  Red River Army Depot Texarkana, TX  Rock Island Arsenal/GDLS  Rock Island Arsenal/GDLS	Weapon System Type:    P-1 Line Hem Nomenc ABRAMS UPGRADE PROCKE   Polivery   Proceedings   Proceedi	Neapon System Type:   P-1 Line   Item Nomenclature: ABRAMS (UPGRADE PROGRAM (GAM759)	Weapon System Type:   P-1 Line Item Nomenclature: ABRAMS UPGRADE PROGRAM (GAU7S9)	Contractor and Location   Contract Methods   Cont

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VBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Iss Date
11. Gun										
FY 2000	Watervliet Arsenal Watervliet, NY	WR		Mar 99	Feb 00	120	203	Yes		NA
FY 2001	Watervliet Arsenal Watervliet, NY	WR		Mar 00	Feb 01	100	198	Yes		NA
FY 2002	Watervliet Arsenal Watervliet, NY	WR		Feb 01	Feb 02	104	113	Yes		NA
FY 2003	Watervliet Arsenal Watervliet, NY	WR		Mar 02	Feb 03	103	219	Yes		NA
12. Driver's Night Viewer										
FY 2001	CECOM NICP Fort Monmouth, NJ	REQ		Feb 01	Feb 01	100	6	Yes		NA
FY 2002	CECOM NICP Fort Monmouth, NJ	REQ		Feb 02	Feb 02	104	6	Yes		NA
FY 2003	CECOM NICP Fort Monmouth, NJ	REQ		Feb 03	Feb 03	103	6	Yes		NA
13. Basic Issue Items										
FY 2000	TACOM-ACALA Rock Island, IL	WR		Feb 99	Feb 00	120	9	Yes		NA
FY 2001	TACOM-ACALA Rock Island, IL	WR		Dec 00	Feb 01	100	10	Yes		NA
FY 2002	TACOM-ACALA Rock Island, IL	WR		Feb 01	Feb 02	104	10	Yes		NA
FY 2003	TACOM-ACALA Rock Island, IL	WR		Feb 02	Feb 03	103	10	Yes		NA
14. MILSTRIPS/RIK										

urement History and Planning							Date: F	February 2	2002
nbat vehicles	Weapon Syst	ет Туре:							
Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issi Date
NA NA NA NA Grumman Aerospace Corp Bethpage, NY Various Various Various Various Various	REQ REQ REQ Option REQ REQ Option Option Option Option Option	CECOM CECOM CECOM CECOM CECOM	Various Various Various Various Aug 99 Oct 00 Oct 00 Apr 02 Dec 98 Nov 99 Nov 00 Nov 01	Feb 00 Feb 01 Feb 02 Feb 01 Feb 02 Feb 03 Feb 03 Feb 03 Feb 00 Feb 01 Feb 02 Feb 03	120 100 104 103 120 100 104 103	4 8 8 8 8 11 13 13 13 740 744 733 720	Yes		NA NA NA Sep 9
	NA NA NA NA Grumman Aerospace Corp Bethpage, NY Various Various Various	Contractor and Location  Contract Method and Type  NA NA NA REQ REQ NA NA REQ REQ REQ REQ Grumman Aerospace Corp Bethpage, NY Grumman Aerospace Corp Bethpage, NY Grumman Aerospace Corp REQ Bethpage, NY Grumman Aerospace Corp REQ REQ REQ REQ REQ Option REQ REQ REQ REQ Option Option Option Option Option Option Option Option	Meapon System Type:    Contractor and Location   Contract Method and Type	Weapon System Type:    Contractor and Location   Contract Method and Type   Location of PCO   Award Date Method and Type	Weapon System Type:    Contract	Weapon System Type:    Contractor and Location   Contract Method and Type   Location of PCO   Award Date of First Method and Type   Each	Weapon System   Type:   P-1 Line Item Nomenclature: ABRAMS UPCRADE PROGRAM (GA0750)	Weapon System   Type:   P-1 Line   Item   Nomenclature: ABRAMS UFGRADE   PROGRAM (GA0750)	NA   REQ   NA   REQ   NA   REQ   NA   REQ   NA   REQ   NA   Revan   Revan   Red   NA   REQ   NA   Red   NA   NA   NA   Red   NA   NA   NA   Red   NA   NA   NA   NA   NA   NA   NA   N

	FY 01 / 02 BUDGET PR	ROD	UCTION	SCH	IEDUL	E			Item No				GRAI	M (G	A0750	))								Date:	:		F	ebru	ary 20	002			
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								Т	V	C	N	В	R	R	Y	N	L	G	P	T	V	С	N	В	R	2	R	Y	N	L	G	P	
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P-40,	, Budget	t Item J	ustifica	tion She	eet	Γ	ate:	I	February 2002				
	vehicles						RADE PROGR <i>A</i>	AM(Adv Proc)	(GA0750)				
ems:			Code:	Other Relate	ed Program El	ements:							
or Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog		
1064.2	260.7	373.7	172.8	194.4							2065.9		
1064.2	260.7	373.7	172.8	194.4							2065.9		
1064.2	260.7	373.7	172.8	194.4							2065.9		
Prior Years FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2007 To Complete Total St Adv Proc 1064.2 260.7 373.7 172.8 194.4 200													

Advance procurement for long lead materials to support procurement for the Abrams Upgrade Program. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

# **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 Requiren	nents A	Analys	is -Fundi	ng (P10A)	)	First System	Award Date:		First System	Completion Da	ate:	Date:	February 2002	
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /1/Tracked com	bat vehicle	es					ABF	RAMS UPGRA	ature / Weapon ADE PROGRA					
							(\$	in Millions)						
	PTL (mos)	When Rqd (mos)	Pr Yrs	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	To Comp	Total
<ol> <li>Basic Vehicle</li> <li>1.1 Termination Liability</li> <li>Armor</li> <li>H/TEU</li> <li>Engine DECU/PROSE</li> <li>Transmission</li> <li>Final Drives</li> <li>Fire Control</li> <li>Track</li> <li>Roadwheels</li> <li>Gun Mounts</li> <li>Gun</li> <li>Driver's Night Viewer</li> <li>Basic Issue Items</li> <li>MILSTRIPS/RIK</li> <li>VIS</li> <li>II Gen FLIR</li> </ol>	18 19 13 20 19 166 16 16 16 16 16 16 16 16 20	6 6 6 6 6 6 6 6 6		26.5 73.3 10.2 14.8 21.1 1.9 2.5 5.3 2.5 23.9 0.0 1.2 77.5	18.7 177.5 15.5 25.7 20.9 1.5 3.2 4.6 1.8 3.4 19.2 1.0 0.6 1.2 79.0	16.5 15.2 1.1 2.5 3.4 1.8 2.4	2.5 67.0 3.2 16.8 16.3 2.7 3.9 1.8 2.9 19.2 0.6 1.0 0.3 1.3 53.9							61.358.44.73.53.10.917.65.11.670.9.5.261.
Total Advance Procurement			0.0	260.7	373.7	172.8	194.4	0.0	0.0	0.0	0.0	0.0	0.0	1001

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.

### Date: Advance Procurement Requirements Analysis - Funding (P10B) February 2002 Appropriation/Budget Activity/Serial No:

Procurement of W&TCV, Army /1/Tracked combat vehicles

P-1 Line Item Nomenclature / Weapon System ABRAMS UPGRADE PROGRAM

			(\$ in Millions)								
		Quantity			2002	2003					
	PLT	Per	Unit		Contract	Total		Contract	Total		
	(mos)	Assembly	Cost	Qty	Forcast Date	Cost Request	Qty	Forcast Date	Cost Request		
End Item Quantity:											
Basic Vehicle	18	1		103	Various	2.5					
1.1 Termination Liability						67.0					
2. Armor	19	1		48	Jan 02	3.2					
3. H/TEU	13										
4. Engine DECU/PROSE	20	1		103	Feb 02	16.8					
5. Transmission	19	1		103	Jul 02	16.3					
6. Final Drives	16	2		206	Feb 02	1.3					
7. Fire Control	16	1		103	Various	2.7					
8. Track	19	156		12324	Mar 02	3.9					
9. Roadwheels	16	32		3296	Feb 02	1.8					
10. Gun Mounts	16	1		52	Apr 02	2.9					
11. Gun	16	1		103	Mar 02	19.2					
12. Driver's Night Viewer	13					0.6					
<ol><li>Basic Issue Items</li></ol>	16					1.0					
14. MILSTRIPS/RIK	16					0.3					
15. VIS	16	1	0.0	103	Apr 02	1.3					
26. II Gen FLIR	20	1		103	Nov 01	53.9					
Total Advance Procurement						194.4			0.0		

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 - Funding (P10C)							Date: February 2002					
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /1/Tracked combat vehicles						P-1 Line Item N ABRAMS						
, ,						(\$ in Mi						
	Pr Yrs	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	То Сотр	Total
Proposal w/o AP												
Then Year Cost	2103	688	691	564	648	587	97					53
Constant Year Cost	2252	717	708	570	643	571	92					55
Present Value	3137	862	807	617	660	556	85					67
AP Proposal												
Then Year Cost	2363	689	804	463	586	376	97					53
Constant Year Cost	2563	718	824	468	582	366	92					56
Present Value	3742	863	940	506	597	356	85					70
AP Savings (Difference)												
Then Year Cost	260	1	113	-101	-62	-211						
Constant Year Cost	311	1	116	-102	-61	-205						
Present Value	605	1	133	-111	-63	-200						3

# Advance Procurement Requirements Analysis - Execution (P10D)

Appropriation/Budget Activity/Serial No:
Procurement of W&TCV, Army /1/Tracked combat vehicles

P-1 Line Item Nomenclature / Weapon System ABRAMS UPGRADE PROGRAM

(8	in	Mil	lions)	١

		2000					2001					2002		2003	
	PTL (mos)	Qty	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	Qty	Contract Forecast Date
<ol> <li>Basic Vehicle</li> <li>1.1 Termination Liability</li> <li>Armor</li> <li>H/TEU</li> <li>Engine DECU/PROSE</li> <li>Transmission</li> <li>Final Drives</li> <li>Fire Control</li> <li>Track</li> <li>Roadwheels</li> <li>Gun Mounts</li> <li>Gun</li> <li>Driver's Night Viewer</li> <li>Basic Issue Items</li> <li>MILSTRIPS/RIK</li> <li>VIS</li> <li>II Gen FLIR</li> </ol>	18 19 13 20 19 16 16 16 16 16 13 16 16 16 20	120 124 124 248 100 19344 3200 62 124 100 100 100	Sep 00 Sep 00 Jul 00 Mar 00	Jan 00 Jun 01 Dec 00 Sep 00 Sep 00 Jul 00 Mar 00 Dec 00 Oct 00 Nov 00	18.7 177.5 15.5 25.7 20.9 1.5 3.2 4.6 1.8 3.4 19.2 1.0 0.6 1.2 79.0	15.5 25.7 20.9 1.5 4.6 1.8 3.4 19.2 1.0	120 80 80 160 104 12480 3328 40 80	Various Jan 01 Apr 01 Dec 00 Feb 01 Various Mar 01 Feb 01 Feb 01 Oct 00 Nov 00	Jan 01 Jun 01 Dec 00 Feb 01 Mar 01 Mar 01 Feb 01 Feb 01 Oct 00 Nov 00	13.5 40.4 15.2 16.5 15.2 1.1 2.5 3.4 1.8 2.4 8.6	15.2 16.5 15.2 1.1 3.4 1.8 2.4 8.6	48 103 103 206 103 12324 3296 52 103	Various Jan 02 Feb 02 Jul 02 Feb 02 Various Mar 02 Feb 02 Apr 02 Mar 02 Apr 02 Nov 01		
Total Advance Procurement					373.7	173.6				172.8	116.4				

# Advance Procurement Requirements Analysis -Obligation/Expenditures (P10E) Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army/I/Tracked combat vehicles P-1 Line Item Nomenclature / Weapon System ABRAMS UPGRADE PROGRAM (\$ in Millions)

							FY	00						Total	Ending
	Starting		1999						2000					Obl/Exp	Balance
	Balance	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	(Cum)	(Cum)
FY 00 Termination Liability Schedule Total Expenditures	177.5 373.7							0.8 0.5	1.9 0.8		3.5 0.4	5.6 1.3	12. <i>є</i> 1.8	26.8 5.4	150.8 368.2
FY 01 Termination Liability Schedule Total Expenditures	40.4 172.8														40.4 172.8
FY 02 Termination Liability Schedule	67.0														67.0
FY 03 Termination Liability Schedule															

# Advance Procurement Requirements Analysis -Obligation/Expenditures (P10E)

Date:

February 2002

Appropriation/Budget Activity/Serial No:

Procurement of W&TCV, Army /1/Tracked combat vehicles

P-1 Line Item Nomenclature / Weapon System ABRAMS UPGRADE PROGRAM

(\$ in Millions)

							FY	01						Total	Ending
	Starting		2000						2001					Obl/Exp	Balance
	Balance	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	(Cum)	(Cum)
FY 00 Termination Liability Schedule Total Expenditures	150.8 368.2	13.8 2.3	15.3 3.3	16.2 22.4	13.2 15.5		11.2 14.3	2.8 13.1	2.0 21.1	2.5 16.€	3.7 8.7	5.8 16.4	13.1 9.9	110.0 188.9	
<b>FY 01</b> Termination Liability Schedule Total Expenditures	40.4 172.8						0.1	3.1	1.0	1.2	0.4	0.3	3.5	9.5	40.4 163.4
FY 02 Termination Liability Schedule	67.0														67.0
FY 03 Termination Liability Schedule															

# Advance Procurement Requirements Analysis-Obligation/Expenditures (P10E) Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /1/Tracked combat vehicles P-1 Line Item Nomenclature / Weapon System ABRAMS UPGRADE PROGRAM

(\$ in Millions)

							(\$ III WIIII							Total	Ending
	Starting		2001				FI	V#	2002					Obl/Exp	Balance
	Balance	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	(Cum)	(Cum)
FY 00 Termination Liability Schedule Total Expenditures	40.7 179.4	14.3 20.1	15.8 23.9	10.6 28.5										40.7 72.ϵ	106.8
<b>FY 01</b> Termination Liability Schedule Total Expenditures	40.4 163.4	1.2	11.3	6.1 4.4	13.7	10.9	9.6							40.4 16.9	
FY 02 Termination Liability Schedule	67.0							0.8	2.1	2.5	3.7	5.9	13.2	28.2	38.7
FY 03 Termination Liability Schedule															

Advance Procurement Requireme	ents Ana	lysis -Ob	ligation	/Expend	litures (	P10E)							Date:	February 20	02
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /1/Tracked comba	t vehicles							ABRAM	em Nomencla S UPGRADE	ature / Weapo EPROGRAM	on System I				
							(\$ in Mill	lions)							
							FY	03						Total	Ending
	Starting		2002						2003					Obl/Exp	Balance
	Balance	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	(Cum)	(Cum)
FY 00 Termination Liability Schedule Total Expenditures	194.3														194.3
FY 01 Termination Liability Schedule Total Expenditures	165.1														165.1
FY 02 Termination Liability Schedule	67.0	14.4	15.9	16.7	14.0	6.0								67.0	
FY 03 Termination Liability Schedule															

Advance Procurement Requireme	ents Ana	lysis -Ot	oligation	/Expend	litures (	P10E)							Date:	February 20	02
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /1/Tracked comba	t vehicles							ABRAM	em Nomencla S UPGRADE	ture / Weapo PROGRAM	n System				
							(\$ in Mill								
							FY	04						Total	Ending
	Starting		2003						2004					Obl/Exp	Balance
	Balance	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	(Cum)	(Cum)
FY 00 Termination Liability Schedule Total Expenditures	194.3														194.3
FY 01 Termination Liability Schedule Total Expenditures	165.1														165.1
FY 02 Termination Liability Schedule															
FY 03 Termination Liability Schedule															

Exhi	bit P-40	, Budge	t Item J	ustifica	tion She	eet	D	ate:	F	February 2002		
Appropriation/Budget Active Procurement of W&TCV, Army		t vehicles				P-1 Item Nom ITE		IAN \$5.0M (TC	CV-WTCV) (G	L3100)		
Program Elements for Code	B Items:			Code:	Other Relate	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	17.5	0.1		7.1	7.6	0.1	0.2	0.2	0.2	0.2		33.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	17.5	0.1		7.1	7.6	0.1	0.2	0.2	0.2	0.2		33.0
Initial Spares												
Total Proc Cost	17.5	0.1		7.1	7.6	0.1	0.2	0.2	0.2	0.2		33.0
Flyaway U/C												
Wpn Sys Proc U/C												

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. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

# 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.

Ext	nibit P-40	, Budge	t Item J	ustifica	tion Sho	eet	Da	ate:	F	Sebruary 2002		
Appropriation/Budget Ac Procurement of W&TCV, An	-	t vehicles				P-1 Item Nom PRC		SASE SUPPOR	T (TCV-WTC	V) (GA0050)		
Program Elements for Co	de B Items:			Code:	Other Relat	ed Program Ele	ements:					
	Prior Years         FY 1999         FY 2000         FY 2001         FY 2002         FY 2003         FY 2004         FY 2005         FY 2006         FY 2007         To Complete         Total Pr											Total Prog
Proc Qty	Thorreads 11 1999 11 2000 11 2001 11 2002 11 2003 11 2004 11 2005 11 2000 11 2007 10 Complete Total 110											
Gross Cost	299.4	9.7	8.8	9.2	9.9	9.9	10.4	10.6	11.3	11.6		390.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	299.4	9.7	8.8	9.2	9.9	9.9	10.4	10.6	11.3	11.6		390.8
Initial Spares												
Total Proc Cost	299.4	9.7	8.8	9.2	9.9	9.9	10.4	10.6	11.3	11.6		390.8
Flyaway U/C												
Wpn Sys Proc U/C												

This program provides for the 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 and real property used in the production of Weapons and Tracked Combat Vehicles. The program also provides funding for the Layaway of Industrial Facilities (LIF) for preserving equipment for the portions of Government owned plants no longer required for active production, but vital to surge or replacement effort in case of National need.

#### Justification:

This request supports PSR and MOD at the Lima Army Tank Plant (LATP) which supports various heavy tacked system such as the M series of tanks. The funding is used to keep Government owned equipment and facilities capable of supporting the manufacturing effort at LATP. Funding also covers work at plants in Muskegon, MI and Scranton, PA. Funding for LIF affords a reduction in costs at various locations by properly preserving equipment for future needs or excessing equipment no longer needed.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/I Procurement of Tracked comb	of W&TCV, A			P-1 Line I PRODUCT	tem Nomenclatur ION BASE SUPPOF	e: RT (TCV-WTCV)(G	A0050)	Weapon System	Гуре:	Date: Febru	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
PIF LIF		\$000	Each	\$000	\$000 8825 341	Each	\$000	\$000 9606 373	Each	\$000	\$000 9580 369	Each	\$000
Total					9166			9979			9949		

Ext	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	ate:	F	ebruary 2002		
Appropriation/Budget Ac Procurement of W&TCV, Ar	-	t vehicles				P-1 Item Nom PIF:		TCV-WTCV) (	GA2001)			
Program Elements for Co	de B Items:			Code:	Other Relat	ed Program El	ements:					
	Prior Years         FY 1999         FY 2000         FY 2001         FY 2002         FY 2003         FY 2004         FY 2005         FY 2006         FY 2007         To Complete         Total Pr											Total Prog
Proc Qty	Thorreas P1 1999 P1 2000 P1 2001 P1 2002 P1 2003 P1 2004 P1 2003 P1 2000 P1 2007 P0 Complete Total P10											
Gross Cost	261.9	9.3	8.5	8.8	9.5	9.5	10.0	10.2	10.9	11.2		349.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	261.9	9.3	8.5	8.8	9.5	9.5	10.0	10.2	10.9	11.2		349.9
Initial Spares												
Total Proc Cost	261.9	9.3	8.5	8.8	9.5	9.5	10.0	10.2	10.9	11.2		349.9
Flyaway U/C												
Wpn Sys Proc U/C												

This program provides for the Provision of Industrial Facilities (PIF). Funds are needed 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 (GOE) and real property required for production and production testing of Weapons and Tracked Combat Vehicles.

#### Justification:

This request supports PSR to GOE and Government owned real property at Lima Army Tank Plant (LATP) and GOE at contractor owned manaufacturing facilities at Muskegon MI, Scranton PA, and other locations. This request also supports items such as Emergency/Unplanned Repairs to prevent loss of resources, production interruptions, and threats to security, worker safety, and the environment. Representative projects include milling capabilities, upgrading of a grinding machine, and rehab of machining centers. At LATP, task such as rehab of weld machines, resurfacing of deteriorating asphalt and concrete, and rehab of machining centers are sample of projects to be accomplished. Such effort helps prevent increased costs due to use and maintenance of obsolete or uneconomical equipment and avoids violations of environmental and safety laws and regulations.

Ext	nibit P-40	, Budge	t Item J	ustifica	tion Sho	eet	Da	ite:	F	February 2002		
Appropriation/Budget Ac Procurement of W&TCV, An		t vehicles				P-1 Item Nom LAY		NDUSTRIAL	FACILITIES (	(GA2100)		
Program Elements for Co	ode B Items:			Code:	Other Relat	ed Program El	ements:					
	Prior Years         FY 1999         FY 2000         FY 2001         FY 2002         FY 2003         FY 2004         FY 2005         FY 2006         FY 2007         To Complete         Total Properties											Total Prog
Proc Qty	11101 Teals 17 17979 17 2000 17 2001 17 2002 17 2003 17 2004 17 2000 17 2007 10 Complete Total 110											
Gross Cost	37.5	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4		40.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	37.5	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4		40.9
Initial Spares												
Total Proc Cost	37.5	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4		40.9
Flyaway U/C												
Wpn Sys Proc U/C												

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 for the portions of the plants which are no longer required for active production.

#### Justification:

- 1. The FY03 request supports an OMNIBUS effort that provides funding for the redistribution of equipment no longer required for the production of Army systems as a result of rightsizing efforts. Project also covers equipment reduction as a result of changes in program requirements. Funding is required for the preservation, packing, crating, handling, and transportation (PCH&T) of equipment excess to production, where such actions do not constitute substantial or complete shutdown or excessing of U.S. Army Tank-automotive & Armaments Command production equipment. Such actions would require a formal and separate layaway or plant clearance project. This project is to prevent unnecessary deterioration, maintenance, and storage expenses of idle items of Government-owned equipment. In addition, this project covers unplanned repairs to active equipment as situations arise. The execution of this project will not have an impact on the quality of the environment.
- 2. The FY03 request also is to provide contractor support in the preparation/implementation of a Scope-of-Work (SOW) for the preliminary assessment of the future layaway of the M1A2 Abrams and M2A3 Bradley production lines at General Dynamics (GDLS) and United Defense Limited Partnership (UDLP), respectively. In addition, the scope of work is to include analysis against critical secondary suppliers. This SOW will enable the Department of the Army to develop rightsizing requirements and a timephased plan for these efforts.

Exh	ibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	te:	F	ebruary 2002		
Appropriation/Budget Acti Procurement of W&TCV, Arm	•	ther combat vehicle	es			P-1 Item Nom ARN		NE GUN, 7.62	MM M240 SE	RIES (G13000	))	
Program Elements for Cod	le B Items:			Code: A	Other Relate	ed Program El	ements:					
	Prior Years	FY 1999	FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2007 To Complete Total Pro									
Proc Qty	53410	1198										
Gross Cost	216.0	11.4	38.4									
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	216.0	11.4	38.4	12.3	8.0	21.3	32.3	11.6	8.8	11.3		371.4
Initial Spares												
Total Proc Cost	216.0	11.4	38.4	12.3	8.0	21.3	32.3	11.6	8.8	11.3		371.4
Flyaway U/C												
Wpn Sys Proc U/C		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		·

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. The FY 97 thru FY 03 buys the M240B configuration in the Armor Machine Gun series. FY 03-05 procure the M240 Helicopter Machine Gun which replaces the M60 Machine Gun. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

#### **Justification:**

FY03 funding procures 2,217 machine guns. The FY03 quantity also includes the requirement for an aviation version (M240) to replace the current M60 door guns. 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/l Procurement of Weapons and	of W&TCV, A	rmy / 2 /			tem Nomenclature ACHINE GUN, 7.62			Weapon System	Гуре:	Date: Februa	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
1. Hardware (Incls Blank Firing Device) Hardware (Aviation Version) 2. Engineering Support - In House Support 3. Intergrated Logistics Support 4. Engineering Change Proposals 5. Fielding 6. Engineering Studies	A	\$000	Each	\$000	\$000 10293 1050 185 357 450		\$000 8	\$000 5638 1603 100 290 347	Each 716	8000	\$000 13978 5745 1036 100 325 150	530	\$000 9 11
Total					12335			7978			21334		

Exhibit P-5a, Budget Procurement His	tory and Planning							Date: F	ebruary 20	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 2 / Weapons and other combat vehicle	es	Weapon Syster	n Type:		P-1 Line Ite ARMOR MACI		ature: MM M240 SERIES (	G13000)		
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. Hardware (Incls Blank Firing Device)										
FY 2001	FN Mfg Inc., Columbia, SC	C/FFP IDIQ	TACOM Rock Island	May 01	Jul 02	1306	8	Yes	No	
FY 2002	FN Mfg Inc., Columbia, SC	C/FFP IDIQ	TACOM Rock Island	Dec 01	Jul 04	716	8	Yes	No	
FY 2003	FN Mfg Inc., Columbia, SC	C/FFP IDIQ	TACOM Rock Island	Dec 02	Nov 04	1687	8	Yes	No	
Hardware (Infantry Version)										
Hardware (Aviation Version)										
FY 2003	FN Mfg Inc., Columbia, SC	SS/FFP	TACOM Rock Island	Jun 03	Jun 05	530	11	No	N/A	
REMARKS:										

	FY 02 / 03 BUDGET PRO	OD	UCTION	SCH	EDULI	E					nclatui HINE (		, 7.62	MM I	M240	SER	IES (	G130	00)					Dat	te:			Febi	uary 2	2002			
												Fis	scal Y	ear (	)2										Fisc	cal Y	Year (	03					
				S	PROC	ACCEP	BAL								Cale	endar	Yea	r 02					┖			C	Calend	lar Y	ear 0	3			L A
	COST ELEMENTS	M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	]	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
Ha	urdware (Infantry Version)																						┢		+		$\vdash$						
		1	FY 00 & Pr	A	2678	1327	1351	175	200	300	100	100	100	100	100	100	76						T	$\top$	_								n
Г			FY 00 & Pr	A	438	438	0	173	200	500	100	100	100	100	100	100	7.0						Т	$\top$									0
Г		_	FY 00 & Pr	A	1500	0	1500																							2.2	125	125	1228
		1	FY 00 & Pr	A	5932	5932	0																								123	123	0
		1	FY 00 & Pr	FMS	10	0	10										10						Т										0
Г		_	FY 00 & Pr	ОТН	11	0	11										11						Т	T									0
		1	FY 01	A	1306	0	1306											100	100	100	100	100	0 10	0 1	100	125	125	125	125	103			0
		1	FY 02	A	716	0	716			Α							J	-00		100	100	1.5	10	1					-20	100			716
		1	FY 02	AF	3235	0	3235				75	75	75	75	75	75	75	75	75	75	75	7:	5 7	5 1	125	125	125	125	125	125	125	125	1260
		1	FY 02	NA	1000	0	1000				75	75	_	75			75								25		-						0
		1	FY 03	A	1687	0	1687															I	A										1687
На	ardware (Aviation Version)																																
		1	FY 03	Α	530	0	530																						Α				530
																							Г										
																							Г										
To	tal				19043	7697	11346	175	200	300	250	250	250	250	250	250	250	250	250	250	250	250	0 25	0 2	250	250	250	250	250	250	250	250	5421
								O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C		]	Е	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
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F							REACHED	Nun	nber					Pri	or 1 O	ct	At	fter 1 C	Oct	Α	fter 1 (	Oct	A	After	1 Oct	:							n 175 to
R	NAME/LOCATION		MIN.	:	1-8-5	MAX.	D+			INIT	IAL				6			9			18				27				to me				AF and Joble
1	FN Mfg Inc.,, Columbia, SC		100.00		175.00	350.00	6	1	l	REO	RDER				0			2			12			1	14				quirer	_		and P	TOOLC
2	To Be Determined		100.00		175.00	350.00	6	2	,	INIT	IAL				6			9			18			2	27			,	1 21				
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	FY 04 / 05 BUDGET PRO	DUCTIO	N SCI	HEDUL	E			Item N IOR N				, 7.62	2MM	M240	SER	IES (	G130	00)					Date	<b>:</b> :			Febi	uary 2	2002			
											Fi	scal Y	Year (	04										Fisca		ear (						
			S	PROC	ACCEP	BAL								Cale	endaı	r Yea	r 04					┺			C			ear 0	5			L A
	COST ELEMENTS  I F		E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	F N	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
Н	ardware (Infantry Version)																				+	┢	+	+	+					$\vdash$		
		FY 00 & P	r A	5932	5932	0																										0
	1	FY 00 & P	r A	2678	2678	0																										0
	1	FY 00 & P	r A	438	438	0																										0
	1	FY 00 & P	r A	1500	272	1228	125	125	125	125	125	125	125	125	125	103																0
	1	FY 00 & P	r FMS	10	10	0																			$\Box$							0
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	1	FY 02	AF	3235	1975	1260	125	125	125	125	125	125	125	125	125	135									_							0
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	1	FY 03	A	1687	0	1687													40	6 250	0 25	25	0 2	50 2	50	250	141			Ш		0
Н	ardware (Aviation Version)																					┖	_	_	4				_	Ш		
		FY 03	A	530	0	530																			_		109	250	171			0
_																			_	_	_	┖	_	_	4				_	Ш		
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To	otal			19043	13622	5421	250	250	250	250	250	250	250	250	250	250	250	250	250	250	0 25	25	0 2:	50 2	50	250	250	250	171	igwdap		
							О	N	D	J	F	M	Α	M	J	J	A	S	О	N	D	J	F			Α	M	J	J	A	S	
							C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	C T	O V		A N	E B	E A	A R	P R	A Y	U N	U L	U G	E P	
M			PRODUCT	TON RATES			M	FR						ADM	4INLE	EAD T	TIME			MFF	١		тот	AL	T	RE	MARI	KS				
F						REACHED	Nur	nber					Pri	ior 1 O	ct	A	fter 1 (	Oct	Α	fter 1		1	After		4							
R	NAME/LOCATION	MIN.		1-8-5	MAX.	D+	,	1	INIT					6			9		_	18		_	27		4							
1	FN Mfg Inc.,, Columbia, SC	100.0	_	175.00	350.00	6				RDER				0			2			12			14		4							
2	To Be Determined	100.0	0	175.00	350.00	6	2	2	INIT					6			9			18		-	27		4							
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Ext	nibit P-40	, Budge	t Item J	ustifica	tion Sho	eet	D	ate:	F	February 2002		
Appropriation/Budget Ac Procurement of W&TCV, An		ther combat vehicle	es			P-1 Item Nom MA		, 5.56MM (SA	W) (G12900)			
Program Elements for Co	ode B Items:			Code:	Other Relat	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	70345	1525	3698	4280							9580	89428
Gross Cost	180.8	5.7	11.7	16.8							42.0	257.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	180.8	5.7	11.7	16.8							42.0	257.0
Initial Spares												
Total Proc Cost	180.8	5.7	11.7	16.8							42.0	257.0
Flyaway U/C												
Wpn Sys Proc U/C		0.0	0.0	0.0							0.0	

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. This weapon fills a secondary role as a light machine gun replacing most of the M60 Machine Guns. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

#### 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. The Army Procurement Objective (APO) is 89,428.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/l Procurement of Weapons and	of W&TCV, A	rmy / 2 /		P-1 Line I MACHINE	tem Nomenclature GUN, 5.56MM (SA	e: W) (G12900)		Weapon System	Туре:	Date: Febru	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
Hardware GFM Engineering Support (In-House) Testing (TECOM) Engineering Change Proposals (ECP's) ILS Fielding TDP Maintenance	AAA	\$000	Each	\$000	\$000 12408 1956 100 1043 250 1075 12	Each 4280	\$000	\$000	Each	\$000	\$000	Each	\$000
Total					16844								

Exhibit P-5a, Budget Procurement Hist	ory and Planning							Date: F	ebruary 20	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 2 / Weapons and other combat vehicles	;	Weapon Syster	n Type:			em Nomencl JN, 5.56MM (SA				
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Hardware FY 2001	FN Mfg Inc Columbia SC	IDIQ/FFP	TACOM-RI	Dec-00	Dec-01	4280	3	Y	N	
REMARKS:										
REMARKS:										

	FY 02 / 03 BUDGET P					nclatuı N, 5.5		(SA'	W) (G	12900	0)							1	Date:			Feb	ruary	2002								
												Fis	scal Y	ear (	)2									F	iscal	Year	03					
				S	PROC	ACCEP	BAL								Cale	endar	· Yea	r 02							(	Calen	dar Y	ear (	)3			L A
	COST ELEMENTS	M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
Hai	rdware																			_			H			┢			H			
		1	FY 99 & Pr	A	71870	71870	0																			Т						0
		1	FY 00	A	3198	2950	248	248																		Т						0
		1	FY 00	A	500	0	500	2	250	248																						0
		1	FY 00	MC	1800	1800	0																									0
		1	FY 01	A	4280	0	4280			2	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	28				0
Tot	al				81648	76620	5028	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	28				
								O C T	N O V	D E C	J A N		M A R	A P R	Α	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
M			PRO	ODUCTI	ON RATES			MI	FR						ADM	IINLE	EAD T	ΊΜΕ			MFR		,	ТОТА	L	R	EMAR	KS				
F							REACHED	Nun	nber				_	Pri	ior 1 O	ct	Aí	fter 1 C	)ct	Ai	fter 1 (	Oct	A	fter 1 C	Oct					pped d		
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+			INIT	TAL				7			1			9			10						f 1800	that	were
1	FN Mfg Inc, Columbia SC		250.00		1200.00	2400.00	18	1		REO	RDER				0			0			0			0		ad	aea to	the c	ontra	ct.		
										INIT	TAL																					
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										INIT	ΊAL															1						
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Ш										INIT													_			4						
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										REO	RDER																					

Exh	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	te:	I	February 2002		
Appropriation/Budget Act Procurement of W&TCV, Art	-	ther combat vehicle	es			P-1 Item Nom GRI		NCHER, AUT	O, 40MM, MK	X19-3 (G13400	))	
Program Elements for Coo	de B Items:			Code:	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	15953	766	1517	811	1510	669						21226
Gross Cost	254.8	15.1	22.9	15.7	28.6	16.7	2.9					356.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	254.8	15.1	22.9	15.7	28.6	16.7	2.9					356.7
Initial Spares												
Total Proc Cost	254.8	15.1	22.9	15.7	28.6	16.7	2.9					356.7
Flyaway U/C												
Wpn Sys Proc U/C		0.0	0.0	0.0	0.0	0.0						

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. The system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

#### Justification:

FY03 procures 669 MK19's in support of the Interim Armored Vehicle (IAV). During static defense operations, it will be ground employed utilizing the M3 Tripod Mount. 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. The MK19 is also a candidate item to go on the Interim Armored Vehicle (IAV). 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 units. Procurement will help reduce critical supply position for high-priority readiness code (ERC)A shortages in Europe, Korea and CONUS requirements.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/E Procurement of Weapons and	f W&TCV, A	rmy / 2 /			tem Nomenclature LAUNCHER, AUT			Weapon System	Гуре:	Date: Febru	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
1. Hardware MK64 ERC A Mounts 2. Round Removal Tool (GFM) 3. Engineering Support (In-House) 4. Integrated Logistics Support (ILS) 5. Engineering Change Proposals (ECP's) 6. Testing (TECOM) 7. Fielding 8. Quality Assurance (ARDEC) 9. Engineering Studies 10. Bore Obstruction Device (BOD) 11. Bags 12. Arms Rack 13. MK19 Mod Kit	A	\$000	Each	\$000	\$000 12164 1676 85 901 185 11 117 371 3 39 152		\$000	\$000 21862 3010 154 1050 400 207 363 150 650 8 79 486 207	Each 1510	15	\$000 11588 1292 68 1050 400 86 322 363 150 1000 3 36 219 86		\$000
Total					15704			28626			16663		

ppropriation/Budget Activity/Serial No: ocurement of W&TCV, Army / 2 / Weapons and other combat vehicles  BS Cost Elements: Contract		Weapon Systen	n Type:							
RS Cost Elements: Contract			71		P-1 Line Ite GRENADE LA		ature: O, 40MM, MK19-3 (C	313400)		
DS COST Elements.	or and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
I. Hardware FY 2001 General Dynamic Saco, Maine FY 2002 General Dynamic Saco, Maine FY 2003 General Dynamic Saco, Maine General Dynamic Saco, Maine	s Land Division	SS/FFP	TACOM - Rock Island TACOM - Rock Island TACOM - Rock Island	Jun 01  Dec 01  Dec 02	Jan 02 Oct 02 Jan 04	811 1510 669	15 15 18	Yes Yes Yes	No No	Oct 00
EMARKS:										

	FY 02 / 03 BUDGET PR	OD	UCTION	SCH	EDUL	E					nclatur UNCH		AUT(	O, 40I	MM, I	MK19	9-3 (0	G1340	00)				]	Date:			Feb	ruary	2002			
												Fis	scal Y	ear (	)2									F	iscal	Year	03					
				S	PROC	ACCEP	BAL			_					Cale	endaı	r Yea	ır 02								Calei	ıdar Y	Year (	3			L A
	COST ELEMENTS	M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
1 1	Hardware																									$\vdash$						$\vdash$
2		1	FY 00 & PR	A	18236	17729	507	125	125	125	63								14	55												0
		_	FY 00	FMS	595	590	5	120	123	120	03								17	5						т						0
		2	FY 01	A	811	0	811				37	100	100	100	100	100	100	100	74							Г						0
		2	FY 01	FMS	4	0	4													4												0
		2	FY 01	OTH	12	0	12												12													0
		2	FY 02	A	1510	0	1510			A										36	100	100	100	100	100	100	100	100	100	100	100	374
		2	FY 03	A	669	0	669															A				L						669
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То	tal				21837	18319	3518	125	125	125	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1043
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								C	O	E	-	E	A	P	A	U	U	U	E	C	О	Е	Α	E	A	P	A	U	U	U	E	
								T	V	С	N	В	R	R	Y	N	L	G	P	T	V	C	N	В	R	R	Y	N	L	G	P	
M			PRO	DDUCTI	ON RATES			MF	R						ADM	4INLE	EAD T	TIME			MFR			ТОТА	L	R	EMAR	KS				
F							REACHED	Nun	ıber					Pri	ior 1 O	ct	A	fter 1 C	Oct	At	fter 1 C	Oct	A	fter 1 (	Oct							
R	NAME/LOCATION		MIN.	1	1-8-5	MAX.	D+	1		INIT	IAL				8			9			19			28								
1	SACO Defense, Saco, Maine		100.00		200.00	300.00	9	1		REO	RDER				8			2			14			16		1						
2	General Dynamics Land Division, Saco, Maine		100.00		200.00	300.00	9	2		INIT			_		8			9			19		_	28		1						
									_		RDER		_		8			2			12			14		4						
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	FY 04 / 05 BUDGET PRO					nclatu UNCI		AUT	O, 40	MM,	MK1	9-3 (	G134	00)					Date	:		I	Febr	uary 2	2002								
												Fi	scal Y	Year (	04										Fisca	al Ye	ear 0	5					
				S E	PROC	ACCEP	BAL								Cal	enda		ar 04					L	_	_	Ca			ear 0				L A
	COST ELEMENTS  I	F	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	N A R	1 A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
1	Hardware	_												_									┢	+	+	+	+	$\dashv$			$\vdash\vdash$		
1.	1 andware	1 F	FY 00 & PR	A	18236	18236	0							┢									┢	+	+	+		$\dashv$			$\vdash$		0
		_		FMS	595	595	0																Н			+							0
	2		FY 01	A	811	811	0							$\vdash$									H	+	+	+							0
	2	_	FY 01	FMS	4	4	0													Г			Т	$\top$	+	+							0
	2	2 F	FY 01	ОТН	12	12	0																Г			+							0
	2	_		A	1510	1136	374	100	100	100	74												Г			T	$\dashv$	$\neg$					0
	2	2 F	FY 03	A	669	0	669	100	100	100		100	100	100	100	100	100	) 43	3				Г	T	$\top$	+		$\neg$					0
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To	otal				21837	20794	1043	100	100	100	100	100	100	100	100	100	100	) 43	3														
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								C	0	Е	A	E	A	P	A	U	U	U	Е		0			Е				A	U	U	U	Е	
								Т	V	С	N	В	R	R	Y	N	L	G	P	Т	V	С	N	В	R	(	R	Y	N	L	G	P	
M		L	PRO	DDUCTI	ON RATES			MI	FR						ADN	MINL	EAD 7	ГІМЕ		1	MFR		1	TOT	AL		REN	MARK	ΚS				
F							REACHED	Nun	nber					Pr	ior 1 C	Oct	A	fter 1	Oct	Α	fter 1	Oct	Α	After 1		4							
R	NAME/LOCATION	_	MIN.		1-8-5	MAX.	D+	1	1	INIT				<u> </u>	8			9		_	19		┡	28		4							
1	SACO Defense, Saco, Maine	_	100.00		200.00	300.00	9				RDER				8			2			14		┡	16		4							
2	General Dynamics Land Division, Saco, Maine	$\dashv$	100.00		200.00	300.00	9	2	2	INIT				_	8			9		$\vdash$	19		⊢	28		4							
_		+									RDER				8			2			12		┢	14		4							
		+								INIT	IAL RDER	,		$\vdash$						$\vdash$			⊢			$\dashv$							
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Exl	hibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	ite:	I	February 2002		
Appropriation/Budget Ac Procurement of W&TCV, A		her combat vehicl	es			P-1 Item Nom 81M		. (ROLL) (G022	200)			
Program Elements for Co	ode B Items:			Code:	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	1115											1115
Gross Cost	32.1				3.3	9.8	10.3	4.7				60.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	32.1				3.3	9.8	10.3	4.7				60.3
Initial Spares												
Total Proc Cost	32.1				3.3	9.8	10.3	4.7				60.3
Flyaway U/C		·					·					·
Wpn Sys Proc U/C												

This budget line funds the 81mm subcaliber training insert for the 120mm Battalion Mortar System. The training insert will allow the M120/M121 mortar, currently fielded to all Mechanized Infantry, Armor and Armored Cavalry units in the Army and Army National Guard, to use less expensive M800 series, 81mm ammunition in training.

The program consists of a two year value engineering effort to test and qualify a domestically producable 81mm mortar tube and to produce 137 inserts.

This program will result in cost avoidance of approximately \$25M per year by using lower cost 81mm ammunition in lieu of full sized (120mm) ammunition

These gun tubes will be produced at Watervliet Arsenal as an Arsenal Act order.

This system supports the Legacy transition path of the Transformation Campaign Plan

#### **Justification:**

The FY02 budget will begin the value engineering effort.

The FY03 budget will complete the value engineering effort and produce 52 inserts

ACQUISITION MANAGER: PM MORTARS

TC Date 2Q FY03

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/l Procurement of Weapons and	of W&TCV, A	rmy / 2 /			Item Nomenclatur RTAR (ROLL) (G0			Weapon System	Туре:	Date: Februa	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	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
HARDWARE 81mm Mortar Tube Insert											1579	52	3
Unutilized Capacity Surcharge											1895	52	3
Subtotal Hardware											3474		
PRODUCTION SUPPORT													
Production Enineering - ARDEC											250		
Production Engineering Watervliet Fielding and NET											355 117		
-													
Subtotal Production Support											722		
NON-RECURRING COSTS								2200			5.05		
Value Engineering Material Change								3298			5625		
<b>Subtotal Non-Recurring Costs</b>								3298			5625		
TOTAL								3298			9821		
Total								2200			004		
Total								3298			9821		

Exhibit P-5a, Budget Procurement Hist	ory and Planning							Date: F	ebruary 20	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 2 / Weapons and other combat vehicle	s	Weapon Syster	n Type:		P-1 Line Ite 81MM MORTA	em Nomencl AR (ROLL) (G02				
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
81mm Mortar Tube Insert FY 2003	Watervliet Arsenal Watervliet NY	SS/CR	TACOM	Jun 03	Feb 05	52	31	No	Mar 03	
REMARKS: Watervliet Arsenal is a Government Owned- Go	overnment Operated (GOGO) facility. Wor	k is accomplis	hed through yearly negotiated work	orders, no	t contracts.					

	FY 02 / 03 BUDGET PR	OD	UCTION	SCH	IEDUL:	E					nclatui .R (RC		(G02:	200)									]	Date:			Feb	ruary	2002			
												Fis	scal Y	ear 0	)2									F	iscal	Year	03					
				S E	PROC	ACCEP	BAL									endar									_			ear 0			_	L A
	COST ELEMENTS	M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
81	nm Mortar Tube Insert												$\dashv$													$\vdash$					_	-
		1	FY 03	A	52	0	52						$\neg$													A						52
													$\neg$													<u> </u>						32
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То	tal				52		52																			Т						52
								O C	N O	D E	J A		M A	A P		J U	J U	A U	S E	O C	N O	D E	J A	F E	M A	A P	M A	J U	J U		S E	
								T	V	C	N	В	R	R		N	L	G	P	T	V	C	A N	В	A R	R	Y	N	L		P	
M			PRO	ODUCTI	ON RATES			MI							ADM						MFR			ТОТА			EMAR					
F							REACHED -	Nun	nber				_	Pri	or 1 Oc	ct	Ai	fter 1 C	Oct	A	fter 1 C	Oct	A	fter 1 (	Oct					rder wi		placed rial
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+	1	l	INIT	IAL RDER	-	_		3			6			28 18		_	34			ange			01		
1	Watervliet Arsenal, Watervliet NY		10.00		40.00	160.00	0			INIT		-	$\dashv$		3			5			18		_	21		1						
											RDER	_	-													1						
										INIT																1						
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										REO	RDER																					
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	FY 04 / 05 BUDGET PR	OD	UCTION	SCH	IEDUL:	E					nclatui .R (RC		(G02:	200)									]	Date:			Feb	ruary	2002			
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				S E	PROC	ACCEP	BAL								Cale											Calen		ear 0				L A
		M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
81	mm Mortar Tube Insert												_			_																
-		1	FY 03	A	52	0	52						$\neg$													Н			10	15	20	7
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M			PRO	ODUCTI	ON RATES			MI	FR						ADM	IINLE	AD T	IME			MFR			ТОТА	.L	R	EMAR	KS				
F							REACHED	Nun	nber					Pri	or 1 Oc	ct	Af	iter 1 C	Oct	Af	iter 1 C	Oct	A	fter 1 (	Oct							
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+	1		INIT			_		3			6			28			34		4						
1	Watervliet Arsenal, Watervliet NY		10.00		40.00	160.00	0		·		RDER		_		3			3			18			21		4						
_										INIT		-	_			_										-						
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	FY 06 / 07 BUDGET P	ROD	UCTION	SCH	IEDUL	E			Item N IM MC				(G02	200)									]	Date:			Feb	ruary	2002			
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	COST ELEMENTS	M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
811	nm Mortar Tube Insert																									┢						
		1	FY 03	A	52	45	7	7																								0
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M			PR	ODUCTI	ION RATES			M	FR						ADM	1INLE	EAD T	TIME			MFR			ТОТА	.L	R	EMAR	KS				
F							REACHED	Nur	nber					Pri	ior 1 O	ct	A	fter 1 (	Oct	A	fter 1 (	Oct	A	fter 1 (	Oct	1						
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+		1	INIT					3			6			28			34		4						
1	Watervliet Arsenal, Watervliet NY		10.00		40.00	160.00	0		-		RDER				3			3			18			21		4						
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Proc Qty         11297         16464         12479         9296         3060         5631         19224         17945         3305         98           Gross Cost         4.4         6.8         5.9         4.7         2.0         3.1         9.4         9.2         2.3         2.3         4														
11 1	•	ther combat vehicle	es					14912)						
Program Elements for Cod	e B Items:				Other Relate	ed Program Ele	ements:							
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog		
Proc Qty	11297	16464	12479	9296	3060	5631	19224	17945	3305			98701		
Gross Cost	4.4	6.8	5.9	4.7	2.0	3.1	9.4	9.2	2.3			47.9		
Less PY Adv Proc														
Plus CY Adv Proc														
Net Proc (P-1)	4.4	6.8	5.9	4.7	2.0	3.1	9.4	9.2	2.3			47.9		
Initial Spares														
Total Proc Cost	4.4	6.8	5.9	4.7	2.0	3.1	9.4	9.2	2.3			47.9		
Flyaway U/C														
Wpn Sys Proc U/C		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					

The M16A4 Rifle is a 5.56mm gas operated, magazine fed weapon capable of firing either semiautomatic or three-round burst. It is identical to the currently fielded M16A2 Rifle, with the exception that the upper receiver contains an integral mounting rail with a detachable carrying handle/rear sight. The M16A4 in combination with the M5 adapter rail forms the Modular Weapon System (MWS) which provides soldiers the flexibility to configure their weapons with those accessories required to fullfill an assigned mission. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

#### Justification:

FY 03 procures 5631 M16A4 Rifles. The M16A4 Rifle was developed as part of the Modular Weapons System (MWS) Program. The U.S. Army identified a need to improve the versatility of the M4 Carbine and the M16A2 Rifle. This was to be accomplished by providing multiple mounting surfaces on the M4 and M16A2 to allow a combination of various accessories to be simultaneously mounted on the weapons. The M4 Carbine already contained an integral rail on the upper receiver. The M16A4 provides the same capability on the rifle. Production of the M16A4 Rifle commenced in 1998, replacing the M16A2 for all future Army requirements.

Date:   February 2002   February 2002   February 2002   P-1 Item Nomenclature   XM107, CAL. 50, SNIPER RIFLE (G01500)   FY 2001   FY 2002   FY 2003   FY 2004   FY 2005   FY 2006   FY 2007   To Complete   To Com													
	-	ther combat vehic	les					SNIPER RIFL	E (G01500)				
Program Elements for Co	de B Items:			Code:	Other Relate	ed Program Ele	ements:						
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog	
Proc Qty					150	600	600	600	600	545	450	3545	
Gross Cost					2.1	8.9	8.9	8.9	8.9	8.1	6.8	52.7	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)					2.1	8.9	8.9	8.9	8.9	8.1	6.8	52.7	
Initial Spares													
Total Proc Cost					2.1	8.9	8.9	8.9	8.9	8.1	6.8	52.7	
Flyaway U/C													
Wpn Sys Proc U/C					0.0	0.0	0.0	0.0	0.0	0.0	0.0		

The XM107 is a Cal.50 rifle with attached optics/electro-optics that supports all weather, day/night tactical dominance via rapid-fire direct fire engagements with armor penetrating, incendiary, dual-purpose ammunition. The XM107 provides a man-portable, materiel destruction capability to the Sniper team and/or supported force and complements the anti-personnel precision fire capability of the M24 Sniper Weapon System (SWS). The Long Range Sniper Rifle (LRSR), with a family of ammunition, enables Sniper teams to employ greater destructive force at greater ranges and at a higher rate of fire that exceed the terminal effect capability of the M24 (7.62mm, bolt action) SWS. Additionally, the LRSR will replace existing non-standard, M82A1, caliber .50 rifles in Explosive Ordnance Detachments as detonation tools. The primary mission of this rifle is to engage and defeat materiel targets at extended ranges to include parked aircraft; command, control, communications, computers, and intelligence (C4I) sites; radar sites; ammunition; petroleum, oil and lubricants; and various other thin skinned (lightly armored) materiel targets out to 2000 meters. The XM107 will also be used in a counter sniper role taking advantage of the longer stand off range and increased terminal effect when opposing snipers armed with smaller caliber weapons out to 1000 meters. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

#### Justification:

The FY 03 procures 600 XM107, CAL. 50, SNIPER RIFLE (G01500). The existing service sniper rifle is the M24 SWS. With M118 long range ammunition, it has a maximum effective range of 1,000 meters against personnel targets. Countering the Threat requires attacking designated targets with decisive, overwhelming destructive force. The M24 SWS bolt action is manually operated and the rifle's internal, five-round magazine is loaded/reloaded one cartridge (7.62 mm) at a time. The M24 SWS is designed to be a precision, anti-personnel tool and cannot meet the rate of fire, or destructive capability (at any range) requirements for an anti-materiel weapon and is not effective in Explosive Ordnance Disposal. The XM107 addresses those deficiencies enabling the soldier to engage and defeat materiel targets out to ranges of 2,000 (anti-materiel) and 1,000 meters (anti-personnel).

Type Classification Date: TC STD 1Q FY 03.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/ Procurement of Weapons and	of W&TCV, A	rmy / 2 /			tem Nomenclatur AL. 50, SNIPER RIF			Weapon System	Гуре:	Date: Februa	nry 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
1. Hardware Weapons Laser Protection Filters 2. ESIP QA 3. Testing 4. Integrated Logistical Support 5. Fielding 6. ECPs	B	\$000	Each	\$000	\$000	Each	\$000	\$000 1778 60 142 60 24 42 28	150 150		\$000 6720 244 1019 335 150 220 225	Each 600 600	\$000
Total								2134			8913		

Exhibit P-5a, Budget Procurement Hist	ory and Planning							Date: F	ebruary 20	002
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 2 / Weapons and other combat vehicles	S	Weapon Syster	п Туре:		P-1 Line Ito XM107, CAL.					
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Weapons FY 2002 FY 2003  Laser Protection Filters FY 2002 FY 2003	Barrett Firearms Mfg. Murfrees Boro, TN Barrett Firearms Mfg. Murfrees Boro, TN  TBS TBS	SS/FFP Option C/FFP C/FFP		NOV 02 JAN 03 JAN 03 JAN 03	JAN 03 APR 03 MAR 03 JUN 03	150 600 150 600	12 12 1 1		OCT 02 OCT 02	
REMARKS:										

	FY 02 / 03 BUDGET P	ROD	UCTION	SCH	IEDUL!	E			item N .07, C				RIFL	E (G0	01500	)							]	Date:	:		Feb	ruary	2002			
												Fis	cal Y	ear 02										]	Fiscal							
			F37.	S	PROC	ACCEP	BAL			_					Cale									1	_	_	ndar Y					L A
	COST ELEMENTS	M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
We	eapons									$\dashv$			$\dashv$			$\dashv$								$\vdash$	+	╀	+					
		1	FY 02	A	150	0	150			$\neg$			┪			$\dashv$					A		50	5	0 5	)	+					0
		1	FY 03	A	600	0	600														71		A	, ,	0 5	_	0 50	50	50	50	50	300
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M			PR	ODUCTI	ON RATES			M	FIR				_		ADM						MFR		_	ТОТА		-	REMAR					
F							REACHED						ŀ		or 1 Oc			ter 1 O	ct		iter 1 C			fter 1								
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+			INITI	IAL		_		3			4	-	- 1.11	3			7		1						
1	Barrett Firearms Mfg., Murfrees Boro, TN		25.00		50.00	100.00	0	1	ı <b>-</b>		RDER		$\neg$		3			3			3			6		1						
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	FY 04 / 05 BUDGET PR	E					nclatui 0, SN		RIFL	Æ(G	01500	))							]	Date:			Feb	ruary	2002							
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			EN.	S E	PROC	ACCEP	BAL						_			endar							_		_	Caler			_			L A
	COST ELEMENTS	M F R	FY	R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	T E R
We	eapons												_													┢			┢			
	-	1	FY 02	A	150	150	0						$\dashv$													┢			Н			0
			FY 03	A	600	300	300	50	50	50	50	50	50													t						0
								30	30	30	50	30	50													T			Н			0
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To	tal				750	450	300	50	50	50	50	50	50																			
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								C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	C T	O V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	
M			PRO	ODUCTI	ON RATES			MF	FR						ADM	IINLE	EAD T	IME			MFR		·	ТОТА	L	R	EMAF	KS				
F							REACHED	Nun	nber				_	Pri	or 1 O	ct	Ai	fter 1 (	Oct	At	fter 1 (	Oct	A	fter 1	Oct	4						
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+	1		INIT			_		3			4			3		_	7		4						
1	Barrett Firearms Mfg., Murfrees Boro, TN		25.00		50.00	100.00	0	·			RDER		_		3			3			3			6		4						
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Exh	ibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	ite:	F	February 2002		
Appropriation/Budget Acti Procurement of W&TCV, Arm	-	ther combat vehicl	es			P-1 Item Nom 5.56	nenclature CARBINE M	<b>1</b> 4 (G14904)				
Program Elements for Cod	e B Items:			Code: A	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	86785	6310	8687	16215	2800	12505	12147	11575			477	157501
Gross Cost	48.5	4.1	5.1	10.6	2.4	9.2	9.1	9.1			0.6	98.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	48.5	4.1	5.1	10.6	2.4	9.2	9.1	9.1			0.6	98.7
Initial Spares												
Total Proc Cost	48.5	4.1	5.1	10.6	2.4	9.2	9.1	9.1			0.6	98.7
Flyaway U/C												
Wpn Sys Proc U/C		0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	

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, 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 system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

### Justification:

FY 03 procures 12505 M4 Carbines. The M4 Carbine provides soldiers with a compact, lightweight weapon that can provide better self-protection and additional firepower in close quarters. The FY03/04/05 program will allow for the uninterrupted fielding in the APO sequence up to the National Guard Enhanced Brigades.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/I Procurement of Weapons and	of W&TCV, A	rmy / 2 /			tem Nomenclature INE M4 (G14904)	e:		Weapon System	Гуре:	Date: Februa	nry 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
1. Hardware 2. Engineering Support (In-House) 3. Engineering Change Proposals (ECP's) 4. Integrated Logistics Support 5. Fielding/Transportation  Transportation	A	\$000	Each	\$000	\$000 9281 880 106 367	Each 16215	\$000	\$000 1852 360 70 101	Each 2800	\$000	\$000 8480 460 85 130	Each 12505	\$000
Total					10634			2383			9155		

Exhibit P-5a, Budget Procurement Hist	ory and Planning							Date: Fe	ebruary 20	02
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army / 2 / Weapons and other combat vehicles	:	Weapon System	п Туре:		P-1 Line Ito 5.56 CARBINE	em Nomencl EM4 (G14904)	ature:			
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. Hardware FY 2001	Colt's Mfg Co. Inc Hartford, CT	SS/FFP Opt	TACOM-Rock Island	Mar 01	Mar 02	9978	1	Yes	No	
FY 2001		SS/FFP	TACOM-Rock Island	Jul 01	Jan 03	6237	1	Yes	No	
FY 2002		SS/FFP OPT	TACOM-Rock Island	May 02	Jul 03	2800	1	Yes	No	
FY 2003		SS/FFP	TACOM-Rock Island	Jan 03	Oct 03	12505	1	Yes	No	
REMARKS:										

	FY 02 / 03 BUDGET PRO	OD'	UCTION	SCH	[EDUL]	E					nclatuı M4 (C		)4)										]	Date:			Fel	oruary	y 200:	2		
												Fis	scal Y	ear 0	2									I	iscal	Year	03					
				S	PROC	ACCEP	BAL								Cale	endar	· Yea	r 02								Cale	ndar	Year	03			L A
L	COST ELEMENTS	M F R	FY	S E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S F F P	T E R
1	Hardware												_			_										+			+		+	
1.		1	FY 00 & PR	A	101.7	96.0	5.7	1.0	1.0	1.0	1.0	1.0	0.7													+			╈		+	
		_	FY 00 & PR		11.0	11.0	0.0	1.0	1.0	1.0	1.0	1.0	0.7													+			+		+	
			FY 00 & PR	MC	0.9	0.9	0.0																			T			T		+	
		1	FY 01	A	10.0	0.0	10.0						0.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7	,		T			T	$\top$		(
		1	FY 01	A	6.2	0.0	6.2																0.5		) 1.0	) 1.0	0 1.	0 1.	0 0	.7	$\top$	(
		1	FY 02	A	2.8	0.0	2.8								A														0	.3 1	.0 1.	0 0.5
		1	FY 02	AF	18.7	0.0	18.7								A				0.5	0.5	0.5	0.5	0.5	0.5	5 0.5	5 0.:	5 0.	5 0.	5 0	.5 0	.5 0.	5 12.2
		1	FY 03	A	12.5	0.0	12.5																A	1								12.5
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То	tal				163.8	107.9	55.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.7	7 1.5	5 1.5	5 1.:	5 1.	5 1.	5 1	.5 1	.5 1.	5 25.2
10	tur				103.0	107.5	33.7				-10		-													_			_		-	20.2
								O C	N O	D E	J A		M A	A P	M A	J U	J U	A U	S E	O C	N O	D E	J A	F E	M A			J U	J U	A U		
								T	V	C	N	В	R	R	Y	N	L	G	P	T	V	C	N	В				N				
M			PRO	ODUCTI	ON RATES			MI	-īR						ADV	IINLE	EAD T	IME			MFR			TOTA	AL.	R	EMA	RKS				
F							REACHED							Pri	or 1 O			fter 1 (	Oct	A	fter 1 (			fter 1					eadtir	nes w	ere e	tended
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+			INIT	IAL				0			3			9			12								duction shown in
1	Colt's Mfg Co. Inc, Hartford, CT		1.00		1.00	2.00	18	1		REO	RDER				0			1			4			5			ousai		reme	nt qua	muty	snown ii
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	FY 04 / 05 BUDGET P	ROD	UCTION	SCH	IEDUL	E					nclatur M4 (C		)4)											Date:			Fe	bruary	/ 200	2		
												Fis	scal Y	'ear (	04									F	'iscal	Yea	r 05					
				S	PROC	ACCEP	BAL			_			_		Cale	endar	Yea	r 04								Cale	ndar	Year	05	_	_	L A
	COST ELEMENTS	M F R	FY	E R V	QTY Each	PRIOR TO 1 OCT	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	Т
1.	Hardware												$\dashv$													╁	+	+	╫			
		1	FY 00 & PR	A	101.7	101.7	0.0																Г			T			T			0
		1	FY 00 & PR	FMS	11.0	11.0	0.0																			Т			Т			0
		1	FY 00 & PR	MC	0.9	0.9	0.0																									0
		1	FY 01	A	10.0	10.0	0.0																									0
		1	FY 01	A	6.2	6.2	0.0																									0
			FY 02	A	2.8	2.3	0.5	0.5																		┺	$\perp$		┸	$\perp$	$\perp$	0
_			FY 02	AF	18.7	6.5	12.2	0.5	0.5	0.5	0.5				0.5					_		0.5	0.5	5 0.5	0.5	5 0.	5 0	.5 0.5	5 0	.5 0.	5 0.	7 0
<u> </u>		1	FY 03	A	12.5	0.0	12.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0						╄	_	_	╄	+	_	0
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T.	1				163.8	138.6	25.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.5	0.5	0.6	- 0.6	. 0.6	5 0.	5 0	5 04	- C	.5 0.	5 0	7
To	tai				163.8	138.6	25.2	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5		1.5		0.5	0.5	0.5	0.5	5 0.	5 0	.5 0.5	5 0	.5 0.	5 0.	/
								O C	N O	D E	J A		M A	A P	M A	J U	J U	A U	S E	O C	N O	D E	J A	F E	M A				J U			
								T	v	C	N	В	R	R	Y	N	L	G	P	T	V	C	N	В	R							
M			PR	ODUCTI	ON RATES			MF									EAD T				MFR			ТОТА			REMA					
F							REACHED	Nun	ıber				_	Pri	ior 1 O	ct	Af	ter 1 C	ct	Af	fter 1 (	Oct	Α	fter 1	Oct							tended duction
R	NAME/LOCATION		MIN.		1-8-5	MAX.	D+	1		INIT			_		0			3			9			12			ites.				p. o	
1	Colt's Mfg Co. Inc, Hartford, CT		1.00		1.00	2.00	18				RDER		-		0			1			4			5		-						
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Exh	ibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	te:	F	ebruary 2002		
Appropriation/Budget Acti Procurement of W&TCV, Arm	-	ther combat vehicl	les			P-1 Item Nom HOV		VT 155MM (T	) (G01700)			
Program Elements for Cod 06	e B Items: 04854A			Code: B	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty							10	47	40	89	87	273
Gross Cost					1.1		21.0	58.3	104.0	139.1	138.5	462.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)					1.1		21.0	58.3	104.0	139.1	138.5	462.1
Initial Spares												
Total Proc Cost					1.1		21.0	58.3	104.0	139.1	138.5	462.1
Flyaway U/C												
Wpn Sys Proc U/C							2.1	1.2	2.6	1.6	1.6	

The Lightweight 155mm Towed Howitzer (LW155) is a Joint USMC/Army Program. The LW155 replaces the M198 Towed Howitzer for both services. The LW155 will be the cannon fire support for the Army's Interim Brigade Combat Teams. A 45% reduction in weight compared to the current system allows for greater strategic and tactical mobility while maintaining or improving range, weapon stability, accuracy, and durability. Battlefield mobility and rates of fire are also significantly improved creating a weapon that is more survivable and lethal. The LW155 includes a digital fire control system that will replace conventional fire control as the primary system. Conventional fire control will remain as a backup to the digital fire control. The digital fire control will enable the LW155 Howitzer section to emplace faster and without survey, aiming posts or an aiming circle. Digital communications and an on-board antenna eliminate the need for wire to the Fire Direction Center and will increase dispersion and survivability on the battlefield. Modifications to the existing prime mover will enable the howitzer section to navigate, recharge the system and receive fire missions, all while moving to the next firing position.

This system supports both the Legacy and Interim transition paths of the Transformation Campaign Plan (TCP).

Ext	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	ite:	F	ebruary 2002		
Appropriation/Budget Act Procurement of W&TCV, Ar	-	ther combat vehicl	les			P-1 Item Nom MA		FICATIONS (	GB3000)			
Program Elements for Co	de B Items:			Code:	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost			2.5	2.8	0.7	2.7	3.9	3.9	4.4			20.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)			2.5	2.8	0.7	2.7	3.9	3.9	4.4			20.9
Initial Spares												
Total Proc Cost			2.5	2.8	0.7	2.7	3.9	3.9	4.4			20.9
Flyaway U/C												
Wpn Sys Proc U/C												

The MK19 Mod 3 is a self powered, air cooled, blowback operated, 40mm automatic grenade machine gun capable of a firing rate of 325-375 rounds per minute. It is used to engage point targets up to 1500 meters and provide suppressive fire at ranges up to 2200 meters. Since the initial fielding of the MK19, various system enhancements have been identified that further improves the system by increasing operational capabilities, improving reliability, improving maintainability, and improving safety. These improvements include a lightweight adjustable sight bracket; a weapon-sight bracket interface; improved firing pin sear with modified firing pin; an adjustable secondary drive lever. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

### **Justification:**

FY03 funds two modifications as follows: Lightweight Adjustable Sight Bracket and miscellaneous modifications to improve reliability and maintainability. The weapon will be mounted on various vehicles and on the M3 tripod for ground mounted applications. 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. The light adjustable sight bracket will provide a means of mounting light accessories (laser pointer/designator, combat ID, optics) on the MK19. The sight base when attached to the MK19 will provide a mounting interface for various fire control and night vision devices. The improved firing pin sear w/ modified firing pin will increase the parts life of the sear. The adjustable secondary drive lever improves maintainability and readiness of the MK19 by lowering the level of maintenance and ease of feed slide adjustment.

Ext	nibit P-40	, Budge	t Item J	ustifica	tion Sho	eet	Da	te:	F	ebruary 2002		
Appropriation/Budget Act Procurement of W&TCV, Ar	-	ther combat vehicl	es			P-1 Item Nom M4		ODS (GB3007)	)			
Program Elements for Co	de B Items:			Code:	Other Relat	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	13.1	6.7	9.4	10.5		9.3	9.9	7.4	5.9	5.9		78.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	13.1	6.7	9.4	10.5		9.3	9.9	7.4	5.9	5.9		78.2
Initial Spares												
Total Proc Cost	13.1	6.7	9.4	10.5		9.3	9.9	7.4	5.9	5.9		78.2
Flyaway U/C												
Wpn Sys Proc U/C												

The M4 Carbine Modification Program provides a close combat optic, an improved buttstock, and a modular weapon suite (which includes a rail system, a top carry sling, a flashlight mount and a permanently affixed back-up iron sight). It also provides the capability for firing the M203A1 Grenade Launcher (GL) with the M4 Carbine and an M203 Rail System which provides targeting capability for 40MM night engagements.

### Justification:

FY03 will procure 12,000 Modular Weapon Systems (mounting rails) and 3880 Close Combat Optic (M68 Sights) modifications. 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 operative, 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. The M203 Rail System (RS) will allow the M203 weapon system to engage targets at night.

Exhibit P-40M, Bu	udget Item Justific	ation Sheet				Dat	e:	Fe	ebruary 2002		
Appropriation/Budget Activity/S Procurement of W&TCV, Ar	Serial No: rmy /2/Weapons and other combat	t vehicles			P-1 Item Nomeno	lature	M4 CARBINE	E MODS (GB3007	)		
Program Elements for Code B Is	tems:		Code:	Other Related I	Program Elements:						
Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Modular Weapon System											
TBD1	Operational	13.3	9.7	0.0	8.6	9.2	2.5	1.0	2.5	0.0	46.8
Close Combat Optic											
TBD2	Operational	13.7	0.5	0.0	0.7	0.8	0.0	0.0	0.0	0.0	15.7
M203 for M4 Carbine											
TBD3	Operational	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
M4 Carbine Buttstock											
TBD4	Operational	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
M203 Rail System											
TBD5	Operational	0.0	0.0	0.0	0.0	0.0	4.9	4.9	3.4	0.0	13.2
Totals		29.2	10.5	0.0	9.3	10.0	7.4	5.9	5.9	0.0	78.2

# INDIVIDUAL MODIFICATION Date: February 2002

MODIFICATION TITLE: Modular Weapon System [MOD 1] TBD1

MODELS OF SYSTEM AFFECTED: 5.56 Carbine M4

### 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, etc. based upon mission requirements. The Modular Weapon System includes the adapter rail system, CQB sling, back-up iron sight and weapon flashlight mount.

### DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Developmental/Operational Tests
Milestone III Production Decision
Production Contract Award
First Production Hardware Delivered
First Unit Equipped

4Q97 (Actual)
4Q97 (Actual)
4Q98 (Actual)
2Q99 (Actual)

Installation Schedule:																					
	Pr Yr		FY	2001			FY	2002			FY 2	2003			FY	2004			FY 2	2005	
	Totals	1	2	. 3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					
		FY	2006			FY :	2007			FY	2008			FY 2	2009			To			Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	C	Complete			
Inputs																					0
Outputs																					
METHOD OF IMPLEME	ENTATION			plication		ADMINI					3 Months					EADTIM	E:	12 Month	15		
Contract Dates:			FY 2002					FY 2003	Jan	n 03				FY 2004	Jar	n 04					
Delivery Date:			FY 2002					FY 2003	De	c 03				FY 2004	De	c 04					

# INDIVIDUAL MODIFICATION

Date:

February 2002

MODIFICATION TITLE (Cont): Modular Weapon System [MOD 1] TBD1

FINANCIAL PLAN: (\$ in Millions)

	FY:	2000																		
	and l	Prior	FY 2	2001	FY 2	2002	FY 2	2003	FY 2	2004	FY 2	2005	FY 2	2006	FY 2	2007	T	C	ТОТ	AL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
Procurement																				
Quantity (Rail Systems Only)	42920		24290				12000		15366										94576	
Installation Kits																				
Installation Kits, Nonrecurring																				
Hardware		11.7		8.8				7.7		8.5		2.1		0.7		1.9				41.4
Equipment, Nonrecurring																				
Engineering Support		0.7		0.6				0.4		0.3		0.3		0.2		0.3				2.8
Testing		0.0																		
Integrated Logistical Support		0.2		0.1				0.3		0.2		0.1		0.1		0.1				1.1
Fielding		0.6		0.2				0.2		0.2						0.2				1.4
Engineering Study		0.1																		0.1
Interim Contractor Support																				
Installation of Hardware																				
FY 2000 & Prior Equip Kits	32920		10000																42920	
FY 2001 - Kits					24290														24290	
FY 2002 Equip Kits																				
FY 2003 Equip Kits									12000										12000	
FY 2004 Equip Kits											15366								15366	
FY 2005 Equip Kits																				
FY 2006 Equip Kits																				
FY 2007 Equip Kits																				
TC Equip- Kits																				
Total Installment	32920	0.0	10000	0.0	24290	0.0		0.0	12000	0.0	15366	0.0		0.0		0.0		0.0	94576	0.0
Total Procurement Cost		13.3		9.7		0.0		8.6		9.2		2.5		1.0		2.5		0.0		46.8

Ex	hibit P-40	, Budge	t Item J	ustifica	tion Sho	eet	Da	nte:	I	February 2002		
Appropriation/Budget Ac Procurement of W&TCV, A		ther combat vehic	les			P-1 Item Nom SQU		IATIC WEAPO	ON (MOD) (G	Z1290)		
Program Elements for Co	ode B Items:			Code:	Other Relat	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	6.0		4.1	2.9	4.4	4.1	7.7					29.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	6.0		4.1	2.9	4.4	4.1	7.7					29.3
Initial Spares												
Total Proc Cost	6.0		4.1	2.9	4.4	4.1	7.7					29.3
Flyaway U/C												
Wpn Sys Proc U/C												

The M249 Squad Automatic Weapon (SAW) is a 5.56mm, lightweight, machine gun that can be utilized in the automatic rifle role and the machine gun role. The M249 Feedtray Cover will provide a Military Standard 1913 rail interface allowing the mounting of standard military optics (M145 Machine Gun Optics, TWS, PVS-4, etc.) directly to the machine gun. The front rails will be fastened to the sides and bottom of the M249 SAW receiver. The side rails accommodate the devices when the weapon is used in either role, while the bottom rail provides an attachment for the vertical handgrip when the SAW is used in the automatic rifle role. The M249 Machine Gun Short Barrel will provide a short version of the 5.56mm automatic weapon. The Light Weight Ground Mount will incorporate a modern traverse and elevating mechanism that will maintain predetermined elevation throughout the full range of weapon traverse, as well as have a series of index marks that enable gunners to construct a range data card. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

#### **Justification:**

FY 03 procures 4244 M249 Rails/Bipods/Handguards. The rails will allow for the attachment of a large variety of existing and future high technology electronic and night vision devices, vertical handgrip and horizontal handgrip, which will provide the soldier additional capabilities to engage targets at extended ranges and during periods of limited visibility. The short barrel, when used in conjunction with the M5 Collapsible Buttstock, shortens the M249 Machine Gun by more than 10 inches enhancing the operational capability by improving MOUT maneuverability and Airborne/Air Assault jump capabilities. The Light Weight Ground Mount will reduce the weight by approximately 50 percent of the current tripod.

Ext	aibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	te:	F	Sebruary 2002		
Appropriation/Budget Ac Procurement of W&TCV, An	•	ther combat vehicl	les			P-1 Item Non Med		Guns (MODS)	(GZ1300)			
Program Elements for Co	ode B Items:			Code: A	Other Relat	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	8.2			0.5	0.7		3.0	3.0	3.1	1.4	18.3	38.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	8.2			0.5	0.7		3.0	3.0	3.1	1.4	18.3	38.2
Initial Spares												
Total Proc Cost	8.2		0.5	0.7		3.0	3.0	3.1	1.4	18.3	38.2	
Flyaway U/C												
Wpn Sys Proc U/C												

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 change 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, heatshield 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 pintle. Since the initial fielding of the M240B, various system enhancements have been identified that further improves the use of this weapon system by increasing functionality and performance capabilities, while improving training capability. This system and the planned improvements support the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

#### **Justification:**

The M240B Medium Machine Gun is an infantry version of the M240 Armored Machine Gun used to replace the M60 Series Machine Gun in light infantry, mechanized infantry, armor, Rangers, Special Forces and select 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. System enhancements have been identified by fielded units to further improve the reliablity of this weapon system. These include adopting a forward rail system to mount ancillary sighting/night vision equipment, an accessory ammunition pouch and an improved, Light Weight Tripod.

Exhi	bit P-40	, Budge	t Item J	ustifica	tion Sho	eet	D	ate:	I	February 2002		
Appropriation/Budget Active Procurement of W&TCV, Army	-	ther combat vehic	les			P-1 Item Non HO		)WED, 155MM	, M198 (MOD	S) (GA0430)		
Program Elements for Code	B Items:			Code:	Other Relat	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Prior Years FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2007 To Complete T Proc Qty												
Gross Cost			3.3	3.5	2.8							9.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)			3.3	3.5	2.8							9.6
Initial Spares												
Total Proc Cost			3.3	3.5	2.8							9.6
Flyaway U/C												
Wpn Sys Proc U/C												

Howitzer Improvement Program and Enhancement (HIPE) for the 155mm, M198, Medium Towed Howitzer. The HIPE program encompasses two major modifications, Hydraulic Power Assist Kit (HyPAK) and Enhancement (on-board power pack and power distribution). This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Howitzer modification is required to modernize and digitize current weapon systems. The M198 Howitzer must be modernized in order to perform it's mission of general support for the light division and Interim Brigade Combat Teams. The modifications applied in this program fulfill this requirement. The HIPE will greatly enhance the tactical mobility, survivability, and responsiveness of the M198. These modifications will ensure that the M198 will continue to be a force multiplier today and in the future.

Exhi	bit P-40	, Budge	t Item J	ustifica	tion She	eet		Date:	I	February 2002		
Appropriation/Budget Active Procurement of W&TCV, Army	•	ther combat vehicl	es			P-1 Item Nom		CATIONS (GC04	401)			
Program Elements for Code	B Items:			Code:	Other Relat	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	4.8	4.8	4.8	4.7	4.9	4.9						28.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	4.8	4.8	4.8	4.7	4.9	4.9						28.7
Initial Spares												
Total Proc Cost	4.8	4.8	4.8	4.7	4.9	4.9						28.7
Flyaway U/C												
Wpn Sys Proc U/C												

Light Artillery System Improvement Plan (LASIP) for the 105mm, M119A1 Light Towed Howitzer. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

The 105mm M119A1 Light, Light Towed Howitzer was selected as the weapon of choice for the light forces because it was a nondevelopmental item (NDI) with growth potential for modernization needs. 408 M119A1 howitzers have been fielded beginning in FY 91. The Light Artillery System Improvement Plan (LASIP) modernization effort corrects known deficiencies, improves reliability, availability and maintainability (RAM), and provides minor operational enhancements.

# Justification:

FY03 funding continues to meet the requirements for this program.

Exl	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	ite:	F	February 2002		
Appropriation/Budget Ac Procurement of W&TCV, An		ther combat vehicl	es			P-1 Item Nom M16	nenclature 5 RIFLE MOI	OS (GZ2800)				
Program Elements for Co	ode B Items:			Code:	Other Relat	ed Program El	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	43.1	5.2	4.3	4.3	2.1		2.4	2.4	2.1			66.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	43.1	5.2	4.3	4.3	2.1		2.4	2.4	2.1			66.0
Initial Spares												
Total Proc Cost	43.1	5.2	4.3	4.3	2.1		2.4	2.4	2.1			66.0
Flyaway U/C												
Wpn Sys Proc U/C					·							

The M16 family of rifles is a gas operated, magazine fed and shoulder fired weapon. They are fed 30 round magazines. The M16 Rifle Modifications Program provides a close combat optic and a modular weapon system suite (which includes a rail system, a top carry sling and a permanently affixed, rear aperture, back-up iron sight for the M16A4 Rifle). 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. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

#### 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., daylight 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.

Exl	nibit P-40	, Budge	t Item J	ustifica	tion Sho	eet	Da	nte:	F	ebruary 2002		
Appropriation/Budget Ac Procurement of W&TCV, An		ther combat vehicl	es			P-1 Item Nom MO		IS LESS THAN	V \$5.0M (WOO	CV-WTCV) (C	GC0925)	
Program Elements for Co	ode B Items:			Code:	Other Relat	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	74.8	1.1	2.2	2.3	1.3	0.8	1.3	1.3	1.4	1.3		87.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	74.8	1.1	2.2	2.3	1.3	0.8	1.3	1.3	1.4	1.3		87.7
Initial Spares												
Total Proc Cost	74.8	1.1	2.2	2.3	1.3	0.8	1.3	1.3	1.4	1.3		87.7
Flyaway U/C												
Wpn Sys Proc U/C												

Provides for modification of Weapons and Other Combat Vehicles with a cost less than \$5.0 Million. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

# **Justification:**

FY03 will provide for M145 Machine Gun Optic Sights for the M249, M60 and M240B Machine Guns. The optic sight will allow the soldier to identify and engage targets more effectively than the existing iron sighting system. The optic sight also provides the soldier with a greater hit probability.

Exh	ibit P-40	, Budge	t Item J	ustifica	tion She	eet	Dε	te:	F	Sebruary 2002		
Appropriation/Budget Act Procurement of W&TCV, Art	-	ther combat vehicl	es			P-1 Item Nom ITE		AN \$5.0M (W	OCV-WTCV)	(GL3200)		
Program Elements for Co	de B Items:			Code:	Other Relat	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	66.5	1.2	1.3	1.2	1.3	1.3	1.3	1.3	1.4	1.4		78.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	66.5	1.2	1.3	1.2	1.3	1.3	1.3	1.3	1.4	1.4		78.2
Initial Spares												
Total Proc Cost	66.5	1.2	1.3	1.2	1.3	1.3	1.3	1.3	1.4	1.4		78.2
Flyaway U/C												
Wpn Sys Proc U/C				·	·							_

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 unit 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. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

### 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 are required to support AAO shortages, field replacements and training requirements.

Exh	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	ite:	F	Sebruary 2002		
Appropriation/Budget Act Procurement of W&TCV, Art	-	ther combat vehicle	es			P-1 Item Nom PRC		ASE SUPPOR	T (WOCV-W	ГСV) (GC005	0)	
Program Elements for Co	de B Items:			Code:	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	283.3	5.1	7.0	5.7	6.4	5.8	6.3	5.9	6.1	6.2		337.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	283.3	5.1	7.0	5.7	6.4	5.8	6.3	5.9	6.1	6.2		337.9
Initial Spares												
Total Proc Cost	283.3	5.1	7.0	5.7	6.4	5.8	6.3	5.9	6.1	6.2		337.9
Flyaway U/C												
Wpn Sys Proc U/C												

This program provides funding to establish, modernize, expand or replace Army-owned industrial facilities used in production testing of Weapons and Tracked Combat Vehicles and their components. The program also provides for the preserving, storing and disposing for facilities and equipment that either not required for current active production or are not needed by the Army. Provisioning of Industrial Facilities (PIF) occurs at Aberdeen Test Center, Md; White Sands Missile Range, NM; and Yuma Proving Grounds, Az. The Layaway funding supports efforts at Rock Island. Il and Wateryliet, NY arsenals.

#### Justification:

The PIF funding will support upgrading and replacing of technically or economically obsolete production test instrumentation to ensure that complete and accurate test data is collected and that safety and environmental hazards are minimized. Benefits of this effort include increased test efficiencies and decreased costs and risks th Army program managers. The Layaway of Industrial Facilities effort preserves the Army's abilities to respond to increases in production capabilities while keeping active production costs down. The effort allows the Army to excess equipment no longer needed. Economies are derived from this this effort that benefit the entire Army.

Exhibit P-5, Weapon WTCV Cost Analysis		Appropriation/F Procurement o Weapons and	f W&TCV, A	rmy / 2 /		P-1 Line I PRODUCT	tem Nomenclatur ION BASE SUPPOR	e: RT (WOCV-WTCV)	(GC0050)	Weapon System	Гуре:	Date: Februa	ary 2002
WTCV	ID		FY 00			FY 01			FY 02			FY 03	
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
PIF LIF		\$000	Each	\$000	\$000 3450 2293		\$000	\$000 3756 2674	Each	\$000	\$000 3165 2695		\$000
Total					5743			6430			5860		

Ext	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	ite:	F	ebruary 2002		
Appropriation/Budget Act Procurement of W&TCV, Ar	•	ther combat vehicle	es			P-1 Item Nom PIF2		(WOCV-WTCV	V) (GC2001)			
Program Elements for Co	de B Items:			Code:	Other Relat	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	236.2	3.5	4.5	3.5	3.7	3.2	3.7	3.8	4.1	4.2		270.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	236.2	3.5	4.5	3.5	3.7	3.2	3.7	3.8	4.1	4.2		270.2
Initial Spares												
Total Proc Cost	236.2	3.5	4.5	3.5	3.7	3.2	3.7	3.8	4.1	4.2		270.2
Flyaway U/C												
Wpn Sys Proc U/C												

This program provides funding to the Army Test and Evaluation Command (ATEC), Developmental Test Command (DTC) to establish, modernize, expand or replace Army-owned industrial facilities used in production testing of Weapons and Tracked Combat Vehicles and their components. It sustains Army production test capabilities through upgrade and replacement of instrumentation and equipment that is technologically and/or economically obsolete. Modernization of test instrumentation and equipment generally provides increased automation and efficiencies, improved data quality and quantity and cost avoidances to Army Program Managers. Programmed funding will be used to upgrade or replace production test instrumentation and equipment at Aberdeen Test Center (ATC), Aberdeen Proving Ground, MD; White Sands Missile Range (WSMR), NM and Yuma Proving Ground (YPG), Yuma, AZ. This project supports all transition paths of the Army Transformation Campaign Plan (TCP).

#### Justification:

FY03 procures: At ATC, on-board vehicle data collection equipment for monitoring automotive and data bus performance during field shock and vibration testing; high speed toxic fumes gas and particulate analyzers for vehicle fire extinguisher testing; instrumentation and instrumentation interfaces for testing on-board computers and micro-controllers in combat vehicles; data acquisition and analysis equipment for toxic fumes testing; gun tube positioning and video equipment for fire control testing; electronic diagnostic instrumentation used to troubleshoot, calibrate, set-up, and repair sensors and data acquisition equipment; high speed digital cameras for ballistics tests and on-board data acquisition equipment for vehicle automotive tests. At WSMR, replacement of Semiconductor Test Lab instrumentation used to test complex integrated circuits for radiation survivability/vulnerability tests; instrumentation and equipment to support nuclear survivability testing of stockpile electronic piece parts for combat vehicles at the WSMR Radiation Tolerance Assured Supply and Support Center and replacement/upgraded amplifies and antennas for electromagnetic radiation effects testing. At YPG, real-time data collection and transmitting equipment and sensors for on-board collection of automotive performance data and ballistics measurements; automation and upgrade of environmental conditioning equipment; establishment of a combat systems firing range and acoustic scoring system for fire control system testing and upgrade of gas analyzers and measurement equipment in the Material Analysis Laboratory. The majority of the instrumentation being upgraded or replaced is obsolete and has met or exceeded it's economic life. This instrumentation is required to ensure complete and accurate test data is collected and safety and environmental hazards are minimized. Benefits of this project include increased test efficiencies and decreased costs and risks to Army Program Managers.

Exh	ibit P-40	, Budge	t Item J	ustifica	tion She	eet	Da	nte:	F	Sebruary 2002		
Appropriation/Budget Act Procurement of W&TCV, Art		ther combat vehicl	es			P-1 Item Nom LAY		NDUSTRIAL I	FACILITIES (	GC2100)		
Program Elements for Coo	de B Items:			Code:	Other Relate	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	47.0	1.7	2.6	2.3	2.7	2.7	2.6	2.1	2.0	2.0		67.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	47.0	1.7	2.6	2.3	2.7	2.7	2.6	2.1	2.0	2.0		67.6
Initial Spares												
Total Proc Cost	47.0	2.6	2.3	2.7	2.7	2.6	2.1	2.0	2.0		67.6	
Flyaway U/C												
Wpn Sys Proc U/C												

This budget line provides for the preserving, storing, and disposing of industrial facilities and equipment that are no longer required to support current production at Watervliet and Rock Island Arsenals.

This project provides for the layaway in place (LIP) of 10 machines in the Army Reserve Plant (ARP) 027 and the excessing of 100 machines. Per DoD 4120.21-M-1, Chapter 1, Equipment Managers Services, this effort provides for demilling of special gages, test fixtures, special tooling (ST) and special test equipment (STE). Work also includes layaway of the manufacturing floor space in Building 220.

The increase in layaway funding in FY 2003-2004 is to help fund Watervliet Arsenal's "footprint" reduction plan. The project will continue the excessing of 389 machines, and vacating of buildings 125 and 110, for a total of 334,00 square feet of floor space.

#### Justification:

The funds are used for the protection and preservation of equipment and facilities no longer required for active production, but which must be retained for possible future peacetime or replenishment production needs. Included are those resources needed to cover the packaging, crating, handling, and transportation (PCH&T) costs for moving equipment to a disposal point or storage site, decontamination, and plant clearance requirements.

The execution of footprint reduction programs allows the arsenals to meet the requirements of Program Budget Decision 407, to be more efficient, and to reduce their operating costs. This results in lower costs for the weapon systems produced.

This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

Ext	nibit P-40	, Budge	t Item J	ustifica	tion She	eet	Dε	te:	F	Sebruary 2002		
Appropriation/Budget Ac Procurement of W&TCV, Ar	•	ther combat vehicle	es			P-1 Item Nom IND		EPAREDNES	S (GC0075)			
Program Elements for Co	ode B Items:			Code:	Other Relat	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Prior Years FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY Proc Qty												
Gross Cost	56.7	3.0	3.1	2.9	4.2	3.2	2.7	2.7	2.9	3.0		84.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	56.7	3.0	3.1	2.9	4.2	3.2	2.7	2.7	2.9	3.0		84.5
Initial Spares												
Total Proc Cost	56.7	3.0	3.1	2.9	4.2	3.2	2.7	2.7	2.9	3.0		84.5
Flyaway U/C												
Wpn Sys Proc U/C				·								

This line provides for the maintenance of laidaway portions of active weapons production plants, and the storage, protection, and maintenance of laidaway Government-owned equipment being stored on-site at Government-owned plants.

At Hawthorne Army Depot, the funding represents the storage costs for items from Rock Island and Watervliet Arsenals, and stored under contract DAAA09-99-D-0022. The funds also pay for storage, maintenance, and inspection of Industrial Plant Equipment (IPE) stored at Rock Island Arsenal, and 57 laidaway machine tools (IPE), gages, special measuring equipment, tooling and fixturing stored at Watervliet Arsenal.

#### **Justification:**

Funds are used for the maintenance of laidaway weapons production facilities to include utilities, buildings, nonseverable equipment, plant equipment, special tooling (ST), and special test equipment (STE) being retained as part of approved plant equipment packages (PEPs) which are required to support future replenishment requirements. Also, includes a fair share of the recurring overhead costs such as grounds maintenance, fire protection, plant security, and administrative support. Decreased Industrial Preparedness Operations (IPO) funding in FYs 2003-2005 reflects savings anticipated from footprint reduction plans at the two arsenals.

This system supports the Legacy transition path of the Transformation Campaign Plan (TCP)

Ext	nibit P-40	, Budge	t Item J	ustifica	tion Sho	eet	Da	ate:	F	February 2002		
Appropriation/Budget Ac Procurement of W&TCV, Ar		ther combat vehicl	es			P-1 Item Nom		SOLDIER ENI	H PROG) (GC	0076)		
Program Elements for Co	de B Items:			Code:	Other Relat	ed Program Ele	ements:					
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	12.0	2.4	5.6	2.1	0.3	2.0	2.4	1.9	2.0	2.0		32.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	12.0	2.4	5.6	2.1	0.3	2.0	2.4	1.9	2.0	2.0		32.5
Initial Spares												
Total Proc Cost	12.0	2.4	5.6	2.1	0.3	2.0	2.4	1.9	2.0	2.0		32.5
Flyaway U/C												
Wpn Sys Proc U/C												

This program provides small arms equipment for the soldier. Funding identified in FY00/03 will provide the soldiers with the following: a Dual Mount that can be used in both the vehicular (Armament HMMWV) and ground mount application for the MK19 Grenade Machine Gun (GMG) and M2 Heavy Barrel MG; an M197 HMMWV Mount (consisting of a pintle adapter, pintle, and travel lock) which provides the capability to mount either the 7.62mm M240B or the 5.56mm M249MG on the existing weapon station of the Armament HMMWV; an M203 Rail System which provides targeting capability for 40MM night engagements; a Sniper Accessory Kit that will contain a hand held wind meter, a low profile bipod, a polarized filter for a day scope, a compact cleaning kit, a ballistic calculator, a range data book, a stock pack and a drag bag (all are available as non-developmental items); the Fire Support Team Vehicle (FISTV) and the Improved TOW Vehicle (ITV) are currently equipped with a weapon mount which accepts the M60 MG (which is being replaced by the M249 MG which does not fit into the existing FISTV/ITV weapon mount). The M249 Mounting Kit for the FISTV/ITV will provide an expedient method to convert the existing weapon mount to accept the M249 MG. The Combat Ammo Pack will hold 50-100 rounds, attach directly to the M240B MMG, protect the ammo during initial forward movements and allow the soldier to better carry the weapon during forward movement firing. These items support the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

### Justification:

FY 03 procures 400 Combat Ammo Packs and 3200 M203 Rail Systems. The Dual Mount will be fielded to scout platoons enabling them to install or switch weapons quickly in the event one vehicle goes down. 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 attenuation of the M2 MG and capability for range card preparation. The M197 HMMWV Mount allows quick mounting of either the M240B or the M249 MG without tools and permits improved operator control of the weapon in both traverse and elevation. The M203 Rail System (RS) will allow the M203 weapon system to engage targets at night. The Soldier Enhancement Program (SEP) was established by Congress to provide essential equipment for the individual soldier such as the Sniper Accessory Kit. The M249 Mounting Kit for the FISTV/ITV enables the existing weapon mount to readily accept the M249MG. The Sniper Accessory Kit will provide the soldier with low cost ancillary equipment needed to enhance overall operational capabilities and increase lethality and survivability. The Combat Ammo Pack will protect the M240B ammunition belt during forward movements and allow the soldier to better carry the weapon while providing forward walking fire, thereby increasing lethality.

Exhibit P-40, Budget Item Justification Sheet								Date: February 2002					
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /2/Weapons and other combat vehicles							P-1 Item Nomenclature CLOSED ACCOUNT ADJUSTMENTS (GC9500)						
Program Elements for Code B Items:					Other Relat	ated Program Elements:							
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog	
Proc Qty													
Gross Cost	23.7	0.3	0.3	0.1								24.5	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	23.7	0.3	0.3	0.1								24.5	
Initial Spares													
Total Proc Cost	23.7	0.3	0.3	0.1								24.5	
Flyaway U/C													
Wpn Sys Proc U/C													

Funds payment of valid invoices, claims, and adjustments against the closed-year Weapons and Tracked Combat Vehicles (WTCV) appropriation.

The funds in this account are required to cover payment of valid invoices on cancelled unliquidated obligations, claims, and obligational adjustments for fiscal years which have been closed in accordance with provisions of P.L. 101-510 and 31 USC 1553 as stated below:

"Subject to the provisions of paragraph (2), after the closing of an account under section 1552(a) or 1555 of this title, obligations and adjustments to obligations that would have been properly chargeable to that account, both as to purpose and in amount, before closing and that are not otherwise chargeable to any current appropriation account of the agency available for the same purpose."

Exhibit P-40, Budget Item Justification Sheet									Date: February 2002					
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army /3/Spare and repair parts						P-1 Item Nomenclature SPARES AND REPAIR PARTS (WTCV) (GE0150)								
Program Elements for Code B Items:				Code:	Other Related Program Elements:									
	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog		
Proc Qty														
Gross Cost	61.8	18.4	22.7	26.1	36.9	25.4	27.8	21.0	22.1	24.0	204.7	490.9		
Less PY Adv Proc														
Plus CY Adv Proc														
Net Proc (P-1)	61.8	18.4	22.7	26.1	36.9	25.4	27.8	21.0	22.1	24.0	204.7	490.9		
Initial Spares														
Total Proc Cost	61.8	18.4	22.7	26.1	36.9	25.4	27.8	21.0	22.1	24.0	204.7	490.9		
Flyaway U/C														
Wpn Sys Proc U/C				·	·							_		

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

# **Justification:**

The funds in this account procure depot level reparable (DLR) secondary items from the Supply Management, Army activity of the Army Working Capital Fund. To provide initial support, funds are normally required in the same year that end items are fielded.

Some of the WTCV systems included in this requirement are: M1 Series Tank, M88 Series Tank, Bradley Fighting Vehicle, and other Tank and Automotive systems.