

Index for PROCUREMENT OF AMMUNITION, ARMY

Blin	Nomenclature	SSN	Filename	Page Number
	P1 EXHIBIT			P1-1
1	CTG, 5.56MM, ALL TYPES	E00700	40132159.00P	1
3	CTG, 7.62MM, ALL TYPES	E02000	40612159.00P	46
7	CTG, .50 CAL, ALL TYPES	E08000	41722159.00P	60
10	CTG, 25MM, ALL TYPES	E08200	42650160.00P	70
11	CTG, 30MM, ALL TYPES	ER8120	42938159.00P	92
12	CTG, 40MM, ALL TYPES	ER8001	43222159.00P	99
13	NONLETHAL WEAPONS CAPABILITY SET	E91800	44026160.00P	120
14	60MM MORTAR, ALL TYPES	E89600	40050160.00P	126
15	CTG 81MM INFRARED (IR) ILLUM XM816	E90000	44770119.00P	161
18	CTG MORTAR 120MM FULL RANGE PRACTICE M931	E25507	46796119.00P	166
19	CTG MORTAR 120MM HE M934A1 W/MO FUZE	E25501	47086119.00P	171
21	CTG 120MM WP SMOKE M929	E91300	48836119.00P	178
22	CTG 120MM APFSDS-T M829A2/M829E3	E78001	44262114.00P	184
23	CTG 120MM HEAT-MP-T M830A1	E78007	45822114.00P	189
24	CTG TANK 120MM TP-T M831/M831A1	E73300	47382159.00P	194
25	CTG TANK 120MM TPCSDS-T M865	E73400	47902159.00P	199
27	CTG ARTY 105MM BLANK M395	E21200	40962100.00P	204
28	CTG ARTY 105MM DPICM XM915	E53500	41178163.00P	209
30	CTG, ARTY, 105MM M927	E93300	41592159.00P	214
31	CTG ARTY 105MM ILLUM M314 SERIES	E21700	41822159.00P	219
32	PROJ ARTY 155MM SMOKE WP M825 (E67800)	E67800	43972160.00P	225
33	PROJ ARTY 155MM HE M795	E66800	45700114.00P	226
34	PROJ ARTY 155MM SADARM M898	E66300	46550114.00P	232
35	REMOTE AREA DENIAL ARTILLERY MUNITION (E67505)	E67502	43102160.00P	240
36	PROJ ARTY 155MM HE M107	E27601	46767160.00P	245
37	MODULAR ARTILLERY CHARGE SYSTEM (MACS)	ER8021	48800114.00P	252
38	FUZE ARTY ELEC TIME M767	E61200	41516163.00P	257

Index for PROCUREMENT OF AMMUNITION, ARMY

Blin	Nomenclature	SSN	Filename	Page Number
39	FUZE MULTI OPTION	ER8017	47200114.00P	263
40	MINE, TRAINING, ALL TYPES	EA0800	40442122.00P	269
41	MINE AT M87 (VOLCANO)	E72195	47922122.00P	271
42	WIDE AREA MUNITIONS	E78100	49622122.00P	276
43	BUNKER DEFEATING MUNITION (BDM)	E88401	42246163.00P	281
44	ROCKET, HYDRA 70, ALL TYPES	E37300	43246159.00P	286
45	DEMOLITION MUNITIONS, ALL TYPES	E55400	42790160.00P	309
46	GRENADES, ALL TYPES	E34000	44582160.00P	316
47	SIGNALS, ALL TYPES	E46900	46038160.00P	329
49	AMMO COMPONENTS, ALL TYPES	EB0016	40684159.00P	337
51	ITEMS LESS THAN \$5 MILLION	EA0055	42624159.00P	340
52	AMMUNITION PECULIAR EQUIPMENT	EA0575	44370159.00P	342
53	FIRST DESTINATION TRANSPORTATION (AMMO)	EA0550	44758159.00P	343
55	PROVISION OF INDUSTRIAL FACILITIES	EP1200	40572120.00P	344
56	LAYAWAY OF INDUSTRIAL FACILITIES	EP2000	42922120.00P	376
57	MAINTENANCE OF INACTIVE FACILITIES	EP1500	44096120.00P	378
58	CONVENTIONAL AMMO DEMILITARIZATION	EP1800	44100120.00P	380
59	ARMS INITIATIVE	EP2500	44150120.00P	382

DEPARTMENT OF THE ARMY
FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1999

Appropriation: ****AMMUNITION****

Activity: **1. **AMMUNITION****

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	(THOUSANDS OF DOLLARS)								
				FY 98		FY 99		FY 00		FY 01		
				QTY	COST	QTY	COST	QTY	COST	QTY	COST	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
	SMALL/MEDIUM CALIBER AMMUNITION											
1	CTG, 5.56MM, ALL TYPES (E00700)	A			66,266		94,154		127,087			140,158
2	CTG 5.56MM ARMOR PIERCING M995 (F47600)	A			1,933		1,921		1,891			1,925
3	CTG, 7.62MM, ALL TYPES (E02000)	A			1,135		12,428		8,529			13,594
4	CTG 7.62MM ARMOR PIERCING XM993 (F47500)	A	2,258	1,013	1,949	925	1,921	600	1,355			
5	CTG, 9MM, ALL TYPES (EA3000)	A			4,135		1,902		983			2,502
6	CTG, .45 CAL, ALL TYPES (ER8110)	A			72		2					
7	CTG, .50 CAL, ALL TYPES (E08000)	A			13,029		18,492		23,374			22,934
8	CTG CAL .50 API MK211 MOD 0 (F47400)	A			1,949							
9	CTG, 20MM, ALL TYPES (E08900)	A							2,764			2,017
10	CTG, 25MM, ALL TYPES (E08200)	A			77,189		80,191		46,618			44,082
11	CTG, 30MM, ALL TYPES (ER8120)	A			9,966		9,035		5,353			9,576
12	CTG, 40MM, ALL TYPES (ER8001)	A			30,434		35,518		36,645			46,040
13	NONLETHAL WEAPONS CAPABILITY SET (E91800)	B							7,989			8,449
	SUB-ACTIVITY TOTAL				208,057		255,564		262,588			291,277

DEPARTMENT OF THE ARMY
FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1999

Appropriation: ****AMMUNITION****

Activity: **1. **AMMUNITION****

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	(THOUSANDS OF DOLLARS)								
				FY 98		FY 99		FY 00		FY 01		
				QTY	COST	QTY	COST	QTY	COST	QTY	COST	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
	MORTAR AMMUNITION											
14	60MM MORTAR, ALL TYPES (E89600)				8,497		23,337		15,616			28,608
15	CTG 81MM INFRARED (IR) ILLUM XM816 (E90000)	B				8	9,340					
16	CTG MORTAR 81MM PRAC 1/10 RANGE M880 (E19800)	A	63,533					30	1,906	30		1,936
17	REFURBISHMENT KIT F/81MM PRAC M880 (E77500)	A								68		1,433
18	CTG MORTAR 120MM FULL RANGE PRACTICE M931 (E25507)	A		78	31,207	97	39,591					
19	CTG MORTAR 120MM HE M934 W/MO FUZE (E25501)	A	771,317	43	37,439	48	36,983	60	46,279	55		43,810
20	CTG MORTAR 120MM ILLUM XM930 W/MTSQ FZ (E25503)	B		2	2,887	2	4,986					
21	CTG 120MM WP SMOKE M929A1 (E91300)		925,339					56	51,819	26		25,125
	SUB-ACTIVITY TOTAL				80,030		114,237		115,620			100,912
	TANK AMMUNITION											
22	CTG 120MM APFSDS-T M829A2/M829E3 (E78001)	A		20	75,168	3	14,691					
23	CTG 120MM HEAT-MP-T M830A1 (E78007)	A		3	7,698	2	9,972					
24	CTG TANK 120MM TP-T M831/M831A1 (E73300)	A	572,333	91	59,684	105	60,216	57	32,623	87		49,541

DEPARTMENT OF THE ARMY
FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1999

Appropriation: ****AMMUNITION****

Activity: **1. **AMMUNITION****

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	(THOUSANDS OF DOLLARS)								
				FY 98		FY 99		FY 00		FY 01		
				QTY	COST	QTY	COST	QTY	COST	QTY	COST	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
25	CTG TANK 120MM TPCSDS-T M865 (E73400)	A	521,376	189	114,846	240	129,548	165	86,027	199	104,682	
SUB-ACTIVITY TOTAL						257,396		214,427		118,650		154,223
ARTILLERY AMMUNITION												
26	CTG ARTY 75MM BLANK M337A1 (E15200)	A	37,794	77	2,853	34	1,562	68	2,570	47	1,818	
27	CTG ARTY105MM BLANK M395 (E21200)	A	54,192					125	6,774			
28	CTG ARTY 105MM DPICM XM915 (E53500)	B		5	9,622							
29	CTG ARTY 105MM HERA M913 (E53700)	A					531					
30	CTG, ARTY 105MM M927					6,842	4,986					
31	CTG ARTY 105MM ILLUM M314 SERIES (E21700)	A	571,429					14	8,000	10	6,000	
32	PROJ ARTY 155MM SMOKE WP M825 (E67800)	A			12,304				14,789		14,773	
33	PROJ ARTY 155MM HE M795 (E66800)	A	493,000	74	34,641			20	9,860			
34	PROJ ARTY 155MM SADARM M898 (E66300)	B	240,291	300	65,343	100	31,453	227	54,546	460	63,605	
35	REMOTE AREA DENIAL ARTILLERY MUNITION (RADAM) (E67505)		482,500					100	48,250	108	48,170	
36	PROJ ARTY 155MM HE M107 (E27601)	A	221,000			199	32,558	113	24,973	162	35,397	
37	MODULAR ARTILLERY CHARGE SYSTEM (MACS) (ER8021)	B	116,997					367	42,938	501	55,602	
SUB-ACTIVITY TOTAL						124,763		71,090		212,700		225,365

DEPARTMENT OF THE ARMY
FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1999

Appropriation: ****AMMUNITION****

Activity: **1. **AMMUNITION****

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	(THOUSANDS OF DOLLARS)								
				FY 98		FY 99		FY 00		FY 01		
				QTY	COST	QTY	COST	QTY	COST	QTY	COST	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
	ARTILLERY FUZES											
38	FUZE ARTY ELEC TIME M767 (E61200)	A	136,345	83	19,663	27	3,989	235	32,041	160	21,505	
39	FUZE MULTI OPTION (ER8017)	B	312,467			2	1,510	45	14,061	222	45,917	
	SUB-ACTIVITY TOTAL				19,663		5,499		46,102		67,422	
	MINES											
40	MINE, TRAINING, ALL TYPES (EA0800)	B	32,139			3	970	251	8,067	245	3,916	
41	MINE AT M87 (VOLCANO) (E72195)	A		6	16,357	4	11,966					
42	WIDE AREA MUNITIONS (E78100)	B	131,481	74	14,745	65	9,598	79	10,387	218	23,329	
	SUB-ACTIVITY TOTAL				31,102		22,534		18,454		27,245	
	ROCKETS											
43	BUNKER DEFEATING MUNITION (BDM) (E88400)	B		943	7,698	1,220	9,972					
44	ROCKET, HYDRA 70, ALL TYPES (E37300)	A	590,857	64	36,431	217	125,700	245	144,760	258	151,400	
	SUB-ACTIVITY TOTAL				44,129		135,672		144,760		151,400	
	OTHER AMMUNITION											
45	DEMOLITION MUNITIONS, ALL TYPES (E55400)	A			9,985		8,775		11,246		14,670	
46	GRENADES, ALL TYPES (E34000)	B			14,084		21,322		11,431		21,193	
47	SIGNALS, ALL TYPES (E46900)	A			7,686		12,948		9,782		13,665	

DEPARTMENT OF THE ARMY
FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1999

Appropriation: ****AMMUNITION****

Activity: **1. **AMMUNITION****

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	(THOUSANDS OF DOLLARS)							
				FY 98		FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
48	SIMULATORS, ALL TYPES (E51200)	A			3,875		4,638		2,265		3,189
	SUB-ACTIVITY TOTAL				35,630		47,683		34,724		52,717
	MISCELLANEOUS										
49	AMMO COMPONENTS, ALL TYPES (EB0016)	A			3,080		7,221		6,876		6,792
50	CAD/PAD ALL TYPES (EA0003)	A			1,063		2,313		2,928		4,325
51	ITEMS LESS THAN \$5 MILLION (EA0055)	A	2,329	5,683	6,272	1,386	1,006	3,288	7,659	3,489	7,788
52	AMMUNITION PECULIAR EQUIPMENT (EA0575)	A			7,301		10,339		10,679		9,535
53	FIRST DESTINATION TRANSPORTATION (AMMO) (EA0550)	A			4,500		6,157		5,303		5,150
54	CLOSED ACCOUNT ADJUSTMENTS (EA0004)				300						
	SUB-ACTIVITY TOTAL				22,516		27,036		33,445		33,590
	ACTIVITY TOTAL				823,286		893,742		987,043		1,104,151

DEPARTMENT OF THE ARMY
FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1999

Appropriation: ****AMMUNITION****

Activity: **2. **AMMUNITION PRODUCTION BASE SUPPORT****

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	(THOUSANDS OF DOLLARS)								
				FY 98		FY 99		FY 00		FY 01		
				QTY	COST	QTY	COST	QTY	COST	QTY	COST	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
	PRODUCTION BASE SUPPORT											
55	PROVISION OF INDUSTRIAL FACILITIES (EP1000)				32,852		50,517		46,139			48,045
56	LAYAWAY OF INDUSTRIAL FACILITIES (EP2000)				13,111		15,319		3,525			3,235
57	MAINTENANCE OF INACTIVE FACILITIES (EP1500)				15,405		15,781		13,043			12,343
58	CONVENTIONAL AMMO DEMILITARIZATION (EP1800)				89,601		82,749		86,291			84,406
59	ARMS INITIATIVE (EP2500)				24,047		4,847		4,775			4,748
	SUB-ACTIVITY TOTAL				175,016		169,213		153,773			152,777
	ACTIVITY TOTAL				175,016		169,213		153,773			152,777
	APPROPRIATION TOTAL				998,302		1,062,955		1,140,816			1,256,928

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG, 5.56MM, ALL TYPES (E00700)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	1666.0	40.7	66.3	94.2	127.1	140.2	142.2	140.8	148.4	145.6	0.0	2711.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1666.0	40.7	66.3	94.2	127.1	140.2	142.2	140.8	148.4	145.6	0.0	2711.5
Initial Spares												
Total Proc Cost	1666.0	40.7	66.3	94.2	127.1	140.2	142.2	140.8	148.4	145.6	0.0	2711.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes 5.56MM ALL TYPES.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG, 5.56MM, ALL TYPES (E00700)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
CTG 5.56MM RIFLE LAUNCHER, NON-LETHAL, X						3249	36	90.25	4250	57	72.45	6410	104	59.41
CTG 5.56MM BALL M193 (A071)									5080	19499	0.26	4601	17293	0.27
CTG 5.56MM BALL M193 (A066)			6000	26086	0.23	14440	64009	0.23	15238	66400	0.23	13804	58886	0.23
CTG 5.56MM BLANK M200						15047	83163	0.18	2235	11955	0.19	12136	67916	0.18
CTG 5.56MM BLANK M200 LINKED F/SAW			13508	38594	0.35	12169	45497	0.27	20147	68431	0.29	19836	66255	0.30
CTG 5.56MM BALL M855 LINKED F/SAW			4379	9730	0.45	5489	16518	0.33	11647	32055	0.36	7106	19049	0.37
CTG 5.56MM 4 BALL M855/1 TRACER M856			745	2403	0.31	12656	32774	0.39	35036	88401	0.40	36841	91437	0.40
CTG 5.56MM BALL M855 F/M16A2			38096	105822	0.36	28587	97594	0.29	33454	110547	0.30	36128	117322	0.31
CTG 5.56MM TRACER M856 F/M16A2			3538	6675	0.53	2517	6287	0.40				3296	7516	0.44
TOTAL			66266			94154			127087			140158		

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 5.56MM BALL M193 (E00701)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	12765522	14242	26086	64009	85899	76179	75975	75637	75056	75824		13334429
Gross Cost	891.7	3.8	6.0	14.4	20.3	18.4	18.6	18.8	19.2	19.6	0.0	1030.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	891.7	3.8	6.0	14.4	20.3	18.4	18.6	18.8	19.2	19.6	0.0	1030.8
Initial Spares												
Total Proc Cost	891.7	3.8	6.0	14.4	20.3	18.4	18.6	18.8	19.2	19.6	0.0	1030.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 5.56mm ball is an anti-personnel cartridge containing a 56 grain, gilding metal-jacketed bullet with a lead antimony core. It is issued for use in the M16/M16A1 series rifle. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training standard item used in both training and combat. FY00/FY01 procurements support annual peacetime training and build war reserve inventory in accordance with the Army's procurement goals. This budget line item procures the M193 ball in two configurations, i.e., DODICs (Department of Defense Identification Code) A066 and A071. DODIC A071 is linked in a clip and used to support war reserve requirements. DODIC A066 is not clipped and is used to support training.

TYPE CLASSIFICATION DATE:

1975

ACQUISITION MANAGER: IOC, Rock Island, Illinois

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 5.56MM BALL M193 (E00701) A071			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack									4857	19499	0.25	4380	17293	0.25
Box Metal M2A1									146	24	6.15	132	21	6.26
SubTotal AMMO Hardware									5003			4512		
Production Support Costs														
Production Engineering									41			72		
Quality Assurance									2			3		
Interim Transportation									3			2		
Industrial Stock Support									31			12		
SubTotal Prod. Support									77			89		
TOTAL									5080		0.26	4601		0.27

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: Ctg 5.56MM Ball M193 (E00701) A071					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack										
FY 00	TBS	C/FP	IOC	Nov-99	Oct-00	19499	0.25	Y		Oct-99
FY 01	TBS	C/FP	IOC	Nov-00	Oct-01	17293	0.25	Y		Oct-00
Box Metal M2A1										
FY 00	TBS	C/FP	IOC	Jan-00	Jul-00	24	6.15	Y		Oct-99
FY 01	TBS	C/FP	IOC	Jan-01	Jul-01	21	6.26	Y		Oct-00

REMARKS: TBS - To Be Selected

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION /Ammunition / 41300132			P-1 Line Item Nomenclature: CTG 5.56MM BALL M193 A066			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack			5058	26086	0.19	12482	64009	0.20	14542	66400	0.22	13114	58886	0.22
Box Metal M2A1			180	33	5.54	445	80	5.57	511	83	6.15	461	74	6.26
SubTotal AMMO Hardware			5238			12927			15053			13575		
Production Support Costs														
Production Engineering			535			1287			160			199		
Quality Assurance			13			7			5			5		
Acceptance Testing			60											
Interim Transportation			38			7			9			7		
Industrial Stock Support			116			212			11			18		
SubTotal Prod. Support			762			1513			185			229		
TOTAL			6000		0.23	14440		0.23	15238		0.23	13804		0.23

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION /Ammunition / 41300132		Weapon System Type:			P-1 Line Item Nomenclature: CTG 5.56MM BALL M193 A066					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack FY 98	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Mar-98	Oct-98	26086	0.19			Jan-98
FY 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Feb-99	Oct-99	32507	0.20	Y		Dec-98
FY 99	TBS	C/FP	IOC	May-99	Apr-00	31502	0.20	Y		Mar-99
FY 00	TBS	C/FP	IOC	Nov-99	Oct-00	66400	0.22	Y		Oct-99
FY 01	TBS	C/FP	IOC	Nov-00	Oct-01	58886	0.22			Oct-00
Box Metal M2A1 FY 98	Brockway Standard Homerville, GA	C/FP	IOC	Mar-98	Sep-98	33	5.54			Jan-98
FY 99	TBS	C/FP	IOC	Mar-99	Sep-99	80	5.57	Y		Jan-99
FY 00	TBS	C/FP	IOC	Jan-00	Jul-00	83	6.15	Y		Oct-99
FY 01	TBS	C/FP	IOC	Jan-01	Jul-01	74	6.26	Y		Oct-00

REMARKS: TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 5.56MM BLANK M200 (E01100)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	3133758			83163	11955	67916	67531	67088	67266	67388		3566065
Gross Cost	291.7	0.0	0.0	15.0	2.2	12.1	12.3	12.4	12.7	12.9	0.0	371.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	291.7	0.0	0.0	15.0	2.2	12.1	12.3	12.4	12.7	12.9	0.0	371.3
Initial Spares												
Total Proc Cost	291.7	0.0	0.0	15.0	2.2	12.1	12.3	12.4	12.7	12.9	0.0	371.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This cartridge is used for simulated firing in training maneuvers and for saluting purposes in the M16 Series Rifle and Squad Automatic Weapon. A blank-firing attachment on the weapon is required for firing automatic or semi-automatic weapons. The cartridge can be identified by the rose petal (rosette crimp) closure on the mouth and by the identification knurl about one-half inch from the base of the cartridge. The mouth of the cartridge is sealed and identified with lacquer. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. FY00/FY01 procurements support annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: prior to 1977

ACQUISITION MANAGER: IOC, Rock Island, Illinois

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 5.56MM BLANK M200 (E01100)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack						12408	83163	0.15	2005	11955	0.17	11586	67916	0.17
Box Metal M2A1						412	74	5.57	65	11	6.15	378	60	6.26
SubTotal AMMO Hardware						12820			2070			11964		
Production Support Costs														
Production Engineering						1961			130			3		
Quality Assurance						4			4			3		
Interim Transportation						6			1			6		
Industrial Stock Support						256			30			160		
SubTotal Prod. Support						2227			165			172		
TOTAL						15047		0.18	2235		0.19	12136		0.18

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition				Weapon System Type:			P-1 Line Item Nomenclature: CTG 5.56MM BLANK M200 (E01100)				
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date	
Load, Assemble, and Pack FY 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Feb-99	Oct-99	42235	0.15	Y		Dec-98	
FY 99	TBS	C/FP	IOC	May-99	Apr-00	40928	0.15	Y		Mar-99	
FY 00	TBS	C/FP	IOC	Nov-99	Oct-00	11955	0.17	Y		Oct-99	
FY 01	TBS	C/FP	IOC	Nov-00	Oct-01	67916	0.17	Y		Oct-00	
Box Metal M2A1 FY 99	TBS	C/FP	IOC	Mar-99	Jul-99	74	5.57	Y		Jan-99	
FY 00	TBS	C/FP	IOC	Jan-00	Jul-00	11	6.15	Y		Oct-99	
FY 01	TBS	C/FP	IOC	Jan-01	Jul-01	60	6.26	Y		Oct-00	

REMARKS: TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG 5.56MM BLANK M200 LINKED F/SAW (E01101)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	210558	2560	38594	45497	68431	66255	66663	65004	90918	81139		735619
Gross Cost	54.1	1.0	13.5	12.2	20.1	19.8	20.3	20.1	28.6	26.0	0.0	215.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	54.1	1.0	13.5	12.2	20.1	19.8	20.3	20.1	28.6	26.0	0.0	215.7
Initial Spares												
Total Proc Cost	54.1	1.0	13.5	12.2	20.1	19.8	20.3	20.1	28.6	26.0	0.0	215.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 5.56mm blank M200 round is a standard blank cartridge currently used during training to simulate live-ammunition noises and flash. This round is linked in 200 round belts and loaded into a plastic ammunition container that attached directly to the M249 Squad Automatic Weapon (SAW). Four plastic containers are packed in a PA108 container. The M249 SAW is a lightweight, belt-fed, one-man operable machine gun. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. FY00/FY01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: 1982

ACQUISITION MANAGER: IOC, Rock Island, Illinois

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 5.56MM BLANK M200 LINKED F/SAW (E01101)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE													
Load, Assemble, and Pack		10884	38594	0.28									
Propellant WC814 (LB)		253	39	6.55									
Link M27		657	39366	0.02									
Complete Round					11729	45497	0.26	19729	68431	0.29	19426	66255	0.29
SubTotal AMMO Hardware		11794			11729			19729			19426		
Production Support Costs													
Production Engineering		1205			201			128			125		
Quality Assurance		29			4			4			4		
Acceptance Testing		136											
Interim Transportation		85											
Industrial Stock Support		259			235			286			281		
SubTotal Prod. Support		1714			440			418			410		
TOTAL		13508		0.35	12169		0.27	20147		0.29	19836		0.30

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 5.56MM BLANK M200 LINKED F/SAW (E01101)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack FY 98	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Jan-98	Oct-98	38594	0.28			Nov-97
FY 99***	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Feb-99	Oct-99	23106	0.26	Y		Dec-98
FY 99***	TBS	C/FP	IOC	May-99	Apr-00	22391	0.26	Y		Mar-99
FY 00***	TBS	C/FP	IOC	Nov-99	Oct-00	68431	0.29	Y		Oct-99
FY 01***	TBS	C/FP	IOC	Nov-00	Oct-01	66255	0.29	Y		Oct-00
Propellant WC814 (LB) FY 98	Olin Corp St. Marks, FL	SS/FP	IOC	Aug-98	Sep-98	39	6.55			Jun-98
Link M27 FY 98	Valentec Wells Costa Mesa, CA	C/FP	IOC	Mar-98	Jul-98	39366	0.02			Jan-98

REMARKS: TBS - To Be Selected
*** Complete Round

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 5.56MM BALL M855 LINKED F/SAW (E04603)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	46016		9730	16518	32055	19049	19142	22964	20994	16097		202565
Gross Cost	16.1	0.0	4.4	5.5	11.6	7.1	7.2	8.8	8.2	6.3	0.0	75.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	16.1	0.0	4.4	5.5	11.6	7.1	7.2	8.8	8.2	6.3	0.0	75.2
Initial Spares												
Total Proc Cost	16.1	0.0	4.4	5.5	11.6	7.1	7.2	8.8	8.2	6.3	0.0	75.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The Squad Automatic Weapon (SAW) ball round, M855, has a steel, conical insert in the ogive of the bullet. This round will be linked in 200 round belts using the M27 link. This item is code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. This round is used primarily for training in areas where a fire hazard exists if the tracer round were to be used. FY00/FY01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: 1982

ACQUISITION MANAGER: IOC, Rock Island, Illinois

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 5.56MM BALL M855 LINKED F/SAW (E04603)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack			3330	9730	0.34									
Propellant WC844 (LB)			255	39	6.55									
Link M27			166	9924	0.02									
Complete Round						5348	16518	0.32	11370	32055	0.35	6871	19049	0.36
SubTotal AMMO Hardware			3751			5348			11370			6871		
Production Support Costs														
Production Engineering			383			46			142			126		
Quality Assurance			9			4			4			3		
Acceptance Testing			43											
Interim Transportation			27											
Industrial Stock Support			166			91			131			106		
SubTotal Prod. Support			628			141			277			235		
TOTAL			4379		0.45	5489		0.33	11647		0.36	7106		0.37

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 5.56MM BALL M855 LINKED F/SAW (E04603)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack FY 98	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Feb-98	Jul-98	9730	0.34			Dec-97
FY 99***	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Feb-99	Oct-99	8389	0.32	Y		Dec-98
FY 99***	TBS	C/FP	IOC	May-99	Apr-00	8129	0.32	Y		Mar-99
FY 00***	TBS	C/FP	IOC	Nov-99	Oct-00	32055	0.35	Y		Oct-98
FY 01***	TBS	C/FP	IOC	Nov-00	Oct-01	19049	0.36	Y		Oct-00
Propellant WC844 (LB) FY 98	Olin Corp St. Marks, FL	SS/FP	IOC	Jul-98	Jul-98	39	6.55			May-98
Link M27 FY 98	Valentec Wells Costa Mesa, CA	C/FP	IOC	Mar-98	Jul-98	9924	0.02			Jan-98

REMARKS: TBS - To Be Selected
*** Complete Round

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG 5.56MM 4 BALL M855/1 TRACER M856 F/S (E04604)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	288356	36704	2403	32774	88401	91437	92154	91107	93984	92996		910316
Gross Cost	106.3	19.1	0.7	12.7	35.0	36.8	37.7	37.9	39.8	40.0	0.0	366.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	106.3	19.1	0.7	12.7	35.0	36.8	37.7	37.9	39.8	40.0	0.0	366.0
Initial Spares												
Total Proc Cost	106.3	19.1	0.7	12.7	35.0	36.8	37.7	37.9	39.8	40.0	0.0	366.0
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M855 ball and M856 tracer rounds are linked for use in the lightweight, one-man operable M249 Squad Automatic Weapon (SAW). The ball round has a steel, conical insert in the ogive of the bullet, which increases helmet penetration substantially compared to the 5.56mm, M193 ball round. The tracer round M856 has a longer tracer column and a improved pyrotechnic mixture, which results in an increased daylight trace range compared to the 5.56mm M196 tracer round. The rounds are linked in a 200 round belt using the M27 link and are loaded into a plastic container whcih attached directly to the M249 SAW. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training standard item used in both training and combat. FY00/FY01 procurements support annual peacetime training and build a war reserve inventory in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: 1982

ACQUISITION MANAGER: IOC, Rock Island, Illinois

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 5.56MM 4 BALL M855/1 TRACER M856 F/S (E04604)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Complete Round			745	2403	0.31	11599	32774	0.35	34812	88401	0.39	36621	91437	0.40
SubTotal AMMO Hardware			745			11599			34812			36621		
Production Support Costs														
Production Engineering						822			141			150		
Quality Assurance						4			4			4		
Industrial Stock Support						231			79			66		
SubTotal Prod. Support						1057			224			220		
TOTAL			745		0.31	12656		0.39	35036		0.40	36841		0.40

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 5.56MM 4 BALL M855/1 TRACER M856 F/S (E04604)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Complete Round										
FY 98	Special Defense Acquisition Olin Corp (Lake City AAP) Independence, MO	OTHER/OT	IOC	Sep-98	Oct-98	2403	0.31			
FY 99		SS/CPAF	IOC	Feb-99	Oct-99	16645	0.35	Y		Jul-98 Dec-98
FY 99	TBS	C/FP	IOC	May-99	Apr-00	16129	0.35	Y		Mar-99
FY 00	TBS	C/FP	IOC	Nov-99	Oct-00	88401	0.39	Y		Oct-99
FY 01	TBS	C/FP	IOC	Nov-00	Oct-01	91437	0.40	Y		Oct-00

REMARKS: FY 98 - Special Defense Acquisition Fund buy by MIPR
TBS - To Be Selected

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 5.56MM 4 BALL M855/1 TRACER M856 F/S (E04604)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00												L A T E R
							Calendar Year 99												Calendar Year 00												
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	
							C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	A	P	A	U	U	U	E	
		98P	ALL	42.8	42.8																										
		98	ALL	4.3		4.3	2.4	0.4		0.8	0.7																				
		99	ALL	36.4		36.4										4.0	4.0	2.4	4.0	3.0	3.0	2.0	3.0	3.0	2.0	3.0	3.0				
		00	ALL	102.0		102.0																					102.0				
		01	ALL	104.0		104.0																					104.0				

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
		INITIAL	REORDER	INITIAL			REORDER				
1	Lake City AAP, MO		11.50	39.30			6	2	11	13	
2	To Be Selected		11.50	39.30			6	2	11	13	

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 5.56MM BALL M855 F/M16A2 (E04601)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	940541	42984	105822	97594	110547	117322	116228	115262	113277	113507		1873084
Gross Cost	244.6	16.8	38.1	28.6	33.5	36.1	36.2	36.6	36.6	37.3	0.0	544.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	244.6	16.8	38.1	28.6	33.5	36.1	36.2	36.6	36.6	37.3	0.0	544.4
Initial Spares												
Total Proc Cost	244.6	16.8	38.1	28.6	33.5	36.1	36.2	36.6	36.6	37.3	0.0	544.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M855 ball has a steel conical insert in the ogive of the bullet which increases the helmet-penetration range substantially compared to the 5.56mm M193 ball round. This cartridge is identified by a green bullet tip and is intended for use against personnel and non-armored targets. This item is used in the M16A2 rifle. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training standard item used in both training and combat. FY00/FY01 procurements support annual peacetime training and build a war reserve inventory in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: 1982

ACQUISITION MANAGER: IOC, Rock Island, Illinois

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 5.56MM BALL M855 F/M16A2 (E04601)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1mil	\$	\$000	x1mil	\$	\$000	x1mil	\$	\$000	x1mil	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack			29778	106	0.28	25228	98	0.26	31749	111	0.29	34258	117	0.29
Box Metal M2A1			741		5.74	663		5.57	830		6.15	896		6.26
Propellant WC844 (LB)			2774		6.55									
SubTotal AMMO Hardware			33293			25891			32579			35154		
Production Support Costs														
Production Engineering			3360			2258			792			892		
Quality Assurance			82			2			3			3		
Acceptance Testing			378											
Interim Transportation			237			10			15			14		
Industrial Stock Support			746			426			65			65		
SubTotal Prod. Support			4803			2696			875			974		
TOTAL			38096		0.36	28587		0.29	33454		0.30	36128		0.31

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition				Weapon System Type:			P-1 Line Item Nomenclature: CTG 5.56MM BALL M855 F/M16A2 (E04601)				
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1mil	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date	
Load, Assemble, and Pack FY 98	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Jan-98	Aug-98	106	0.28			Nov-97	
FY 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Feb-99	Oct-99	50	0.26	Y		Dec-98	
FY 99	TBS	C/FP	IOC	May-99	Apr-00	48	0.26	Y		Mar-99	
FY 00	TBS	C/FP	IOC	Nov-99	Oct-00	111	0.29	Y		Oct-99	
FY 01	TBS	C/FP	IOC	Nov-00	Oct-01	117	0.29	Y		Oct-00	
Box Metal M2A1 FY 98	Brockway Standard Homerville, GA	C/FP	IOC	Mar-98	Jul-98		5.74			Jan-98	
FY 99	TBS	C/FP	IOC	Mar-99	Jul-99		5.57	Y		Jan-99	
FY 00	TBS	C/FP	IOC	Jan-00	Jul-00		6.15	Y		Oct-99	
FY 01	TBS	C/FP	IOC	Jan-01	Jul-01		6.26	Y		Oct-00	
Propellant WC844 (LB) FY 98	Primex St Marks, FL	C/FP	IOC	Jul-98	Aug-98		6.55			May-98	

REMARKS: TBS - To Be Selected

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00												L A T E R
							Calendar Year 99												Calendar Year 00												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Load, Assemble, and Pack																															
	1	98P	A	43.0	43.0																										
	1	98	A	106.0	45.0	61.0	5.0	5.0		2.0	3.0	9.0	6.0	6.0	6.0	2.0	8.0	9.0													
	1	99	A	50.0		50.0											8.0	8.0	8.0	8.0	8.0	10.0									
	2	99	A	48.0		48.0														8.0	8.0	8.0	8.0	8.0	8.0						
	2	00	A	111.0		111.0																					111.0				
	2	01	A	117.0		117.0																					117.0				
	1	99	AF	2.6		2.6											0.4	0.4	0.4	0.4	0.5	0.5									
	2	99	AF	2.6		2.6														0.4	0.4	0.4	0.4	0.5	0.5						
	2	00	AF	5.5		5.5																					5.5				
	2	01	AF	3.3		3.3																					3.3				
	1	98P	MC	103.0	103.0																										
	1	98	MC	77.0		77.0	6.0	6.0	12.0	6.0	7.0	6.0	7.0	7.0	6.0	7.0	7.0														
	1	99	MC	38.0		38.0									6.0	6.0	6.0	6.0	7.0	7.0											
	2	99	MC	36.0		36.0													6.0	6.0	6.0	6.0	6.0	6.0	6.0						
	2	00	MC	12.0		12.0																					12.0				
	2	01	MC	58.0		58.0																					58.0				

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS	
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.				
1	Lake City AAP, MO		19.40	67.50	6		INITIAL	6	2	11	13	
2	To Be Selected		19.40	67.50	6		REORDER	6	2	11	13	
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG 5.56MM RIFLE LAUNCHER, NON-LETHAL, XM95 (E91100)

Program Elements for Code B Items:

Code:

B

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty				36	57	104	112					309
Gross Cost	0.0	0.0	0.0	3.2	4.3	6.4	6.5	0.0	0.0	0.0	0.0	20.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	3.2	4.3	6.4	6.5	0.0	0.0	0.0	0.0	20.5
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	3.2	4.3	6.4	6.5	0.0	0.0	0.0	0.0	20.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 5.56MM Non-Lethal round is a muzzle-launched ordnance, propelled by the use of an M195 grenade impulse cartridge. It is compatible with both the M16A4 and M4 Carbine. The item consists of a muzzle attaching launch tube and a packaged stack of rubber balls (M95) for its payload. The launched payload is intended to be non-lethal, low hazard and non-shrapnel producing, which upon impact, generates a temporary trauma to the body with the intent to confuse, disorient and/or momentarily distract/deter potential threat personnel. The Area Fire M95 is an inert item, cylindrical in shape, with an overall length of 7 inches and a diameter of 2 inches. The payload is 15 rubber coated steel balls, each being approximately 0.7 (~11/16) inches in diameter. Propulsive energy is provided by using an M195 Impulse Cartridge. Ignition of the M195 Impulse Cartridge generates the gas energy to propel and disperse the rubber coated balls to a group target. The M95 is a single shot disposable item.

JUSTIFICATION:

The FY 00/01 procurement will provide friendly forces with the capability to enforce a standoff distance from a crowd of belligerents at a range of 30-80 meters without using deadly force. There are currently no non-lethal munitions for the M16A2 and M4 weapon systems.

TYPE CLASSIFICATION (TC) DATE: March 1999

Acquisition Manager: Product Manager Small Arms

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 5.56MM RIFLE LAUNCHER, NON- LETHAL, XM95 (E91100)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
1. Complete Round M95		B				2630	36	73.67	3720	57	65.26	5825	104	56.01
SubTotal AMMO Hardware						2630			3720			5825		
Production Support Costs														
1. Production Engineering						289			300			300		
2. Quality Assurance						115			115			115		
3. Acceptance Testing						115			115			115		
SubTotal Prod. Support						519			530			530		
COST - Nonrecurring														
1. Initial Production Test						100								
2. Change of Production Line Qualification												55		
SubTotal COST-Nonrecurring						100						55		
TOTAL						3249		90.25	4250		72.45	6410		59.41

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 5.56MM RIFLE LAUNCHER, NON-LETHAL, X (E91100)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. Complete Round M95										
FY 99	Alliant Techsystems, MN	SS/Option	TACOM-ARDEC	Apr-99	Dec-99	36	73.67	YES		
FY 00	Alliant Techsystems, MN	SS/Option	TACOM-ARDEC	Jan-00	Apr-00	57	65.26	YES		
FY 01	Alliant Techsystems, MN	SS/Option	TACOM-ARDEC	Jan-01	Apr-01	104	56.01			

REMARKS:

FY 1999 Army procurement is an option to the Air Force September 1998 Urgent buy.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG, 7.62MM, ALL TYPES (E02000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	1330.9	12.0	1.1	12.4	8.5	13.6	14.6	14.7	15.1	15.4	0.0	1438.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1330.9	12.0	1.1	12.4	8.5	13.6	14.6	14.7	15.1	15.4	0.0	1438.3
Initial Spares												
Total Proc Cost	1330.9	12.0	1.1	12.4	8.5	13.6	14.6	14.7	15.1	15.4	0.0	1438.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes 7.62MM ALL TYPES

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG, 7.62MM, ALL TYPES (E02000)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
CTG 7.62MM 4 BALL/1 TRACER F/MINIGUN						6079	13382	0.45	1650	4273	0.39	2347	6125	0.38
CTG 7.62MM BALL M80 LINKED/M13									2421	5405	0.45	3435	7949	0.43
CTG 7.62MM 4 BALL/1 TRACER F/OHF			647	1012	0.64	48			1103	1931	0.57	1069	1814	0.59
CTG 7.62MM BLANK M82 LINKED/M13			488	920	0.53	5731	17493	0.33	3326	9063	0.37	6714	19245	0.35
CTG 7.62MM SHORT RANGE TNG 4B/1T						570	320	1.78	29	51	0.57	29	50	0.58
TOTAL			1135			12428			8529			13594		

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG 7.62MM BLANK M82 LINKED/M13 (E01902)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

		FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	1902583		920	17493	9063	19245	19257	19149	19241	19289		2026240
Gross Cost	232.6	0.0	0.5	5.7	3.3	6.7	6.8	6.9	7.0	7.2	0.0	276.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	232.6	0.0	0.5	5.7	3.3	6.7	6.8	6.9	7.0	7.2	0.0	276.7
Initial Spares												
Total Proc Cost	232.6	0.0	0.5	5.7	3.3	6.7	6.8	6.9	7.0	7.2	0.0	276.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This cartridge consists of a primer and propellant contained in a brass case shaped to conform to the configuration of the service round. The propellant is held in by a wad. The mouth of the cartridge is sealed and crimped. The Blank Firing Attachment (BFA) M21 is installed on the M240 machine gun to enable blank ammunition to be fired and to provide back pressure to sustain continuous firing. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item, not used in combat. FY00/FY01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE:

1958

ACQUISITION MANAGER:

IOC, Rock Island, Ill

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 7.62MM BLANK M82 LINKED/M13 (E01902)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack			380	920	0.41									
Link M13			20	938	0.02									
Propellant WC818 (LB)			17	3	6.55									
Complete Round						5524	17493	0.32	2959	9063	0.33	6389	19245	0.33
SubTotal AMMO Hardware			417			5524			2959			6389		
Production Support Costs														
Production Engineering			43			180			319			228		
Quality Assurance			1			5			5			4		
Acceptance Testing			5											
Interim Transportation			3											
Industrial Stock Support			19			22			43			93		
SubTotal Prod. Support			71			207			367			325		
TOTAL			488		0.53	5731		0.33	3326		0.37	6714		0.35

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 7.62MM BLANK M82 LINKED/M13 (E01902)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack FY 98	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Dec-97	Nov-98	920	0.41			Oct-97
FY 99***	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Feb-99	Oct-99	8884	0.32	Y		Dec-98
FY 99	TBS	C/FP	IOC	May-99	Apr-00	8609	0.32	Y		Mar-99
FY 00***	TBS	C/FP	IOC	Nov-99	Oct-00	9063	0.33	Y		Oct-99
FY 01***	TBS	C/FP	IOC	Nov-00	Oct-01	19245	0.33	Y		Oct-00
Link M13 FY 98	Valentec Wells Costa Mesa, CA	C/FP	IOC	Jan-98	Jun-98	938	0.02			Nov-97
Propellant WC818 (LB) FY 98	Olin Corp St. Marks, FL	SS/FP	IOC	Aug-98	Sep-98	3	6.55			Jun-98

REMARKS: ***Complete Round
 TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 7.62MM BALL M80 LINKED/M13 (E02003)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	185483	5721		13382	5405	7949	8005	8023	8016	8021		250005
Gross Cost	55.8	3.2	0.0	6.1	2.4	3.4	3.5	3.6	3.6	3.7	0.0	85.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	55.8	3.2	0.0	6.1	2.4	3.4	3.5	3.6	3.6	3.7	0.0	85.3
Initial Spares												
Total Proc Cost	55.8	3.2	0.0	6.1	2.4	3.4	3.5	3.6	3.6	3.7	0.0	85.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This cartridge is for use in the Machine Gun Series M60, M73, M219, and M240. The straight ball M80 configuration is used in support of training. The bullet consists of a gilding-metal steel jacket with a lead-antimony slug. The cartridge case is brass and the bullet is unpainted. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. FY 00/01 procurements support annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE:
1979

ACQUISITION MANAGER:
IOC, Rock Island, Ill

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 7.62MM BALL M80 LINKED/M13 (E02003)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Complete Round						5446	13382	0.41	2183	5405	0.40	3265	7949	0.41
SubTotal AMMO Hardware						5446			2183			3265		
Production Support Costs														
Production Engineering						521			203			120		
Quality Assurance						2			4			3		
Industrial Stock Support						110			31			47		
SubTotal Prod. Support						633			238			170		
TOTAL						6079		0.45	2421		0.45	3435		0.43

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 7.62MM BALL M80 LINKED/M13 (E02003)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Complete Round FY 97	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Nov-96	Oct-97	5721	0.42			Sep-96
FY 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Feb-99	Oct-99	6796	0.41	Y		Dec-98
FY 99	TBS	C/FP	IOC	May-99	Apr-00	6586	0.41	Y		Mar-99
FY 00	TBS	C/FP	IOC	Nov-99	Oct-00	5405	0.40	Y		Oct-99
FY 01	TBS	C/FP	IOC	Nov-00	Oct-01	7949	0.41	Y		Oct-00

REMARKS: TBS - To Be Selected

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99													Fiscal Year 00												L A T E R
							Calendar Year 99													Calendar Year 00												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
Complete Round																																
	1	98	A	15.20	15.20																											
	1	99	A	6.80		6.80								1.20	1.00	1.00	1.20	1.20	1.20													
	2	99	A	6.60		6.60													1.10	1.10	1.10	1.10	1.10	1.10								
	2	00	A	5.40		5.40																			5.40							
	2	01	A	7.90		7.90																			7.90							
	1	98P	MC	22.40	22.40																											
	1	98	MC	5.20		5.20	0.40	0.40	0.40	0.50	0.40	0.50	0.50	0.40	0.40	0.40	0.50	0.40														
	2	01	MC	5.10		5.10																			5.10							
	1	98	NS	1.00		1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10																	
	1	99	NS	0.80		0.80											0.10	0.10	0.10	0.20	0.10	0.20										
	2	99	NS	0.70		0.70														0.10	0.10	0.10	0.10	0.10	0.20							
	2	00	NS	1.00		1.00																			1.00							
	2	01	NS	1.00		1.00																			1.00							
	1	98	SOF	2.00		2.00	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20																
	2	00	SOF	0.50		0.50																			0.50							
	2	01	SOF	0.50		0.50																			0.50							

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
		INITIAL	REORDER	INITIAL			REORDER	INITIAL			
1	Lake City AAP, MO		11.08	38.24			6	2	11	13	
2	To Be Selected		11.08	38.24			6	2	11	13	

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 7.62MM BALL M80 LINKED/M13 (E02003)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00												L A T E R
							Calendar Year 99												Calendar Year 00												
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	
	1	98P	OTH	1.60	1.60																										
	1	98	OTH	0.60		0.60																									
	1	98P	FMS	1.50	1.50																										
		98P	ALL	40.70	40.70																										
		98	ALL	8.80		8.80	0.70	0.70	0.70	0.80	0.70	0.80	0.80	0.70	0.70	0.70	0.50	1.00													
		99	ALL	14.90		14.90													1.30	1.10	1.10	1.40	1.30	1.40	1.20	1.20	1.20	1.20	1.20	1.30	
		00	ALL	6.90		6.90																								6.90	
		01	ALL	14.50		14.50																								14.50	

	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
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MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Lake City AAP, MO		11.08	38.24			6	2	11	13	
2	To Be Selected		11.08	38.24			6	2	11	13	

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 7.62MM BALL M80 LINKED/M13 (E02003)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 01												Fiscal Year 02												L A T E R
							Calendar Year 01												Calendar Year 02												
							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	
Complete Round																															
	1	98	A	15.20	15.20																										
	1	99	A	6.80	6.80																										
	2	99	A	6.60	6.60																										
	2	00	A	5.40		5.40	0.50	0.50	0.20	0.50	0.50	0.50	0.50	0.50	0.20	0.50	0.50														
	2	01	A	7.90		7.90											0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.20				
	1	98P	MC	22.40	22.40																										
	1	98	MC	5.20	5.20																										
	2	01	MC	5.10		5.10											0.40	0.40	0.40	0.50	0.40	0.50	0.40	0.40	0.40	0.40	0.50				
	1	98	NS	1.00	1.00																										
	1	99	NS	0.80	0.80																										
	2	99	NS	0.70	0.70																										
	2	00	NS	1.00		1.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10															
	2	01	NS	1.00		1.00										0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10						
	1	98	SOF	2.00	2.00																										
	2	00	SOF	0.50		0.50	0.10	0.10	0.10	0.10	0.10																				
	2	01	SOF	0.50		0.50										0.10	0.10	0.10	0.10	0.10											
							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	
MFR	NAME / LOCATION				PRODUCTION RATES			REACHED	MFR Number	ADMIN LEAD TIME				MFR	TOTAL	REMARKS															
		MIN.	1-8-5	MAX.	D +				Prior 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.																		
1	Lake City AAP, MO		11.08	38.24			INITIAL	6	2	11	13																				
2	To Be Selected		11.08	38.24			REORDER	6	2	11	13																				
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG, .50 CAL, ALL TYPES (E08000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	409.6	4.9	13.0	18.5	23.4	22.9	23.2	25.8	23.9	25.5	0.0	590.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	409.6	4.9	13.0	18.5	23.4	22.9	23.2	25.8	23.9	25.5	0.0	590.7
Initial Spares												
Total Proc Cost	409.6	4.9	13.0	18.5	23.4	22.9	23.2	25.8	23.9	25.5	0.0	590.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes .50 CAL ALL TYPES

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG, .50 CAL, ALL TYPES (E08000)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
CTG CAL .50 BALL M33 W/M9 LINK			850	447	1.90	3684	2649	1.39	2614	1590	1.64	3632	2194	1.66
CTG CAL .50 SLAPT M903			3029	340	8.91									
CTG CAL .50 4 BALL/1 TRACER W/M9 LINK			9150	4378	2.09	14808	9325	1.59	20760	12360	1.68	19302	11295	1.71
TOTAL			13029			18492			23374			22934		

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG CAL .50 4 BALL/1 TRACER W/M9 LINK (E07200)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	387466	2070	4378	9325	12360	11295	11268	11213	11226	11242		471843
Gross Cost	282.9	4.9	9.2	14.8	20.8	19.3	19.5	19.8	20.1	20.5	0.0	431.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	282.9	4.9	9.2	14.8	20.8	19.3	19.5	19.8	20.1	20.5	0.0	431.8
Initial Spares												
Total Proc Cost	282.9	4.9	9.2	14.8	20.8	19.3	19.5	19.8	20.1	20.5	0.0	431.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This item consists of M33 ball and M17 tracer linked 4 to 1 with the M9 link. These cartridges in the linked configuration are for training use in either vehicle mounted or ground mounted machine guns. The tracer round permits observation of the bullet's trajectory to the point of impact. The ammunition is designed for use in the M2 or M3 machine guns. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item: not used in combat. FY00/01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE:

1968

ACQUISITION MANAGER:

IOC, Rock Island, Ill

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG CAL .50 4 BALL/1 TRACER W/M9 LINK (E07200)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack			6104	4378	1.39	12888	9325	1.38	19541	12360	1.58	18160	11295	1.61
Box Metal M2A1			256	45	5.74	530	95	5.57	776	126	6.15	721	115	6.26
Link M9			292	4417	0.07									
Propellant WC860 (LB)			789	120	6.55									
Prop IMR 5010 (LB)			461	32	14.61	960	67	14.29						
SubTotal AMMO Hardware			7902			14378			20317			18881		
Production Support Costs														
Production Engineering			807			117			130			131		
Quality Assurance			20			4			4			4		
Acceptance Testing			91											
Interim Transportation			57			22			14			12		
Industrial Stock Support			273			287			295			274		
SubTotal Prod. Support			1248			430			443			421		
TOTAL			9150		2.09	14808		1.59	20760		1.68	19302		1.71

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition				Weapon System Type:		P-1 Line Item Nomenclature: CTG CAL .50 4 BALL/1 TRACER W/M9 LINK (E07200)				
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack FY 98	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Dec-97	Apr-98	4378	1.39			Oct-97
FY 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Feb-99	Oct-99	4736	1.38	Y		Dec-98
FY 99	TBS	C/FP	IOC	May-99	Apr-00	4589	1.38	Y		Mar-99
FY 00	TBS	C/FP	IOC	Nov-99	Oct-00	12360	1.58			Oct-99
FY 01	TBS	C/FP	IOC	Nov-00	Oct-01	11295	1.61			Oct-00
Box Metal M2A1 FY 98	Brockway Standard Homerville, GA	C/FP	IOC	Dec-97	Mar-98	45	5.74			Oct-97
FY 99	TBS	C/FP	IOC	Mar-99	Jul-99	95	5.57	Y		Jan-99
FY 00	TBS	C/FP	IOC	Jan-00	Jul-00	126	6.15	Y		Oct-99
FY 01	TBS	C/FP	IOC	Jan-01	Jul-01	115	6.26	Y		Oct-00
Link M9 FY 98	Valentec Wells Costa Mesa, CA	C/FP	IOC	Jan-98	Mar-98	4417	0.07			Nov-97
Propellant WC860 (LB) FY 98	Olin Corp St. Marks, FL	SS/FP	IOC	Jan-98	Mar-98	120	6.55			Nov-97

REMARKS:

TBS - To Be Selected

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG CAL .50 4 BALL/1 TRACER W/M9 LINK (E07200)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Prop IMR 5010 (LB) FY 98	Alliant Tech Sys (Radford AAP) Radford, VA	SS/FP	IOC	Jan-98	Mar-98	32	14.61			Nov-97
FY 99	Alliant Tech Sys (Radford AAP) Radford, VA	SS/FP	IOC	Aug-99	Sep-99	67	14.29	Y		Jun-99

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: CTG CAL .50 4 BALL/1 TRACER W/M9 LINK (E07200)																	Date: February 1999								
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 01													Fiscal Year 02											L A T E R
							Calendar Year 01													Calendar Year 02											
							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	
Load, Assemble, and Pack																															
	1	98P	A	2.10	2.10																										
	1	98	A	4.40	4.40																										
	1	99	A	4.70	4.70																										
	2	99	A	4.60	4.60																										
	2	00	A	12.00		12.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00															
	2	01	A	11.00		11.00											0.90	0.90	0.90	0.90	0.90	1.00	0.90	0.90	0.90	0.90	1.00				
	1	99	AF	0.30	0.30																										
	2	99	AF	0.20	0.20																										
	2	00	AF	1.10		1.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10															
	2	01	AF	0.60		0.60											0.10	0.10	0.10	0.10	0.10	0.10									
	1	98P	NS	0.23	0.23																										
	2	00	NS	0.86		0.86	0.10	0.10	0.06	0.10	0.10	0.10	0.10	0.10	0.10																
	2	01	NS	0.57		0.57											0.10	0.10	0.07	0.10	0.10	0.10									
	1	98	FMS	0.13	0.13																										

MFR	PRODUCTION RATES			REACHED	MFR Number	ADMIN LEAD TIME		MFR	TOTAL	REMARKS
NAME / LOCATION	MIN.	1-8-5	MAX.	D +		Prior 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.	
1 Lake City AAP, MO		5.99	20.77		INITIAL	6	2	11	13	
					REORDER	6	2	11	13	
2 To Be Selected		5.99	20.77		INITIAL					
					REORDER					
					INITIAL					
					REORDER					
					INITIAL					
					REORDER					
					INITIAL					

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG CAL .50 4 BALL/1 TRACER W/M9 LINK (E07200)														Date: February 1999	L A T E R																				
COST ELEMENTS	M F R	FY	S E R V	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 01												Fiscal Year 02																							
							Calendar Year 01												Calendar Year 02																							
							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											
		98P	ALL	2.33	2.33																																					
		98	ALL	4.53	4.53																																					
		99	ALL	9.80	9.80																																					
		00	ALL	14.00		14.00	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.10	1.10	1.00																							
		01	ALL	12.20		12.20														1.10	1.10	1.10	1.10	1.10	1.20	0.90	0.90	0.90	0.90	0.90	1.00											

M F R	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
		INITIAL									
1	Lake City AAP, MO		5.99	20.77		INITIAL	6	2	11	13	
2	To Be Selected		5.99	20.77		REORDER	6	2	11	13	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG, 25MM, ALL TYPES (E08200)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	1076.7	79.9	77.2	80.2	46.6	44.1	40.3	40.8	41.1	41.9	0.0	1568.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1076.7	79.9	77.2	80.2	46.6	44.1	40.3	40.8	41.1	41.9	0.0	1568.8
Initial Spares												
Total Proc Cost	1076.7	79.9	77.2	80.2	46.6	44.1	40.3	40.8	41.1	41.9	0.0	1568.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes 25MM ALL TYPES.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG, 25MM, ALL TYPES (E08200)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
CTG 25MM TP-T M793			19611	1256	15.61	19032	1652	11.52	16453	1223	13.45	15917	1182	13.47
CTG 25MM TPDS-T M910			27578	1556	17.89	40418	2763	14.63	580			4368	260	16.78
CTG 25MM APFSDS-T M919			30000	242	123.97	20741	165	125.70	29585	253	117.00	23797	200	119.00
TOTAL			77189			80191			46618			44082		

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 25MM TP-T M793 (E08203)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	18159	487	1256	1652	1223	1182	1524	1542	1510	1513		30048
Gross Cost	256.0	7.2	19.6	19.1	16.5	15.9	16.1	16.3	16.6	16.9	0.0	400.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	256.0	7.2	19.6	19.1	16.5	15.9	16.1	16.3	16.6	16.9	0.0	400.2
Initial Spares												
Total Proc Cost	256.0	7.2	19.6	19.1	16.5	15.9	16.1	16.3	16.6	16.9	0.0	400.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M793 cartridge is a percussion primed 25mm Target Practice-Traced (TP-T) cartridge with M28 link for use in the M242 gun which is mounted on the Bradley Fighting Vehicle System. The M793 training round is ballistically matched to the M792 High Explosive Incendiary-Tracer (HEI-T) ammunition. This round will be packaged/shipped in the M621 plastic container, 30 rounds per container. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. FY00/FY01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE:
1979

ACQUISITION MANAGER:
IOC, Rock Island, Ill

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 25MM TP-T M793 (E08203)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE													
Complete Round					18340	1652	11.10						
Load, Assemble, and Pack		15605	1256	12.42				13581	1223	11.10	13122	1182	11.10
Container PA125		1316	42	31.37				1796	41	43.96	1765	39	44.70
Pallet Steel w/Adapter								402	1	410.84	395	1	417.80
SubTotal AMMO Hardware		16921			18340			15779			15282		
Production Support Costs													
Production Engineering		1729			321			408			382		
Quality Assurance		42			4			4			4		
Acceptance Testing		195											
Interim Transportation		122						33			27		
Industrial Stock Support		602			367			229			222		
SubTotal Prod. Support		2690			692			674			635		
TOTAL		19611		15.61	19032		11.52	16453		13.45	15917		13.47

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 25MM TP-T M793 (E08203)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack FY 98	Primex Tech Marion, IL	C/FP	IOC	Jun-98	Feb-99	691	#11.25			Apr-98
FY 98	Alliant Tech (Joliet AAP) Joliet, IL	C/FP	IOC	Jun-98	Feb-99	565	#11.25			Apr-98
FY 99****	TBS	CM-1/FP	IOC	Mar-99	May-00	1652	11.10	Y		Jan-99
FY 00****	TBS	CM-2/FP	IOC	Mar-00	May-01	1223	11.10	Y		Oct-99
FY 01****	TBS	CM-3/FP	IOC	Mar-01	May-02	1182	11.10	Y		Oct-00
Container PA125 FY 98	Conco Inc. Louisville, KY	C/FP	IOC	Aug-98	Nov-98	42	31.37			Jun-98
FY 00	TBS	C/FP	IOC	Jul-00	Mar-01	41	43.96	Y		Oct-99
FY 01	TBS	C/FP	IOC	Jul-01	Mar-02	39	44.70	Y		Oct-00
Pallet Steel w/Adapter FY 00	TBS	C/FP	IOC	Jul-00	Mar-01	1	410.84	Y		Oct-99
FY 01	TBS	C/FP	IOC	Jul-01	Mar-02	1	417.80	Y		Oct-00

REMARKS: TBS - To Be Selected
Actual contract price for multiple producers.
****This is a below-threshold 5-year Multiyear contract.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: CTG 25MM TP-T M793 (E08203)

Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00												L A T E R
							Calendar Year 99												Calendar Year 00												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Load, Assemble, and Pack																															
	1	98P	A	1.23	1.23																										
	2	98P	A	0.77	0.76	0.01					0.01																				
	1	98	A	0.57		0.57					0.10	0.10	0.10	0.10	0.10	0.07															
	2	98	A	0.69		0.69					0.20	0.20	0.20	0.09																	
	3	99	A	1.65		1.65														0.20	0.20	0.20	0.20	0.20							
	3	00	A	1.22		1.22																		1.22							
	3	01	A	1.18		1.18																		1.18							
	2	98P	MC	0.07	0.07																										
	2	98P	MC	0.11		0.11																									
	1	98P	MC	0.09		0.09																									
	3	99	MC	0.09		0.09														0.09											
	3	00	MC	0.16		0.16																		0.16							
	3	01	MC	0.19		0.19																		0.19							
	1	98	SOF	0.11	0.11																										
	3	99	SOF	0.11		0.11														0.11											

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Alliant Tech, MN	0.26	0.26	0.75	12	INITIAL	6	6	14	20	
2	Primex Tech, IL	0.08	0.20	0.52		REORDER	6	4	14	18	
3	To Be Selected	0.26	0.26	0.75	12	INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 03												Fiscal Year 04												L A T E R							
							Calendar Year 03												Calendar Year 04																			
							O	N	D	J	F	M	A	A	M	J	J	A	S	O	N	D	J	F	M	A	A	M	J	J		A	S					
		98P	ALL	2.18	2.18																																	
		98	ALL	1.46	1.46																																	
		99	ALL	1.85	1.85																																	
		00	ALL	1.38	1.38																																	
		01	ALL	1.37	1.19	0.18	0.18																															

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Alliant Tech, MN	0.26	0.26	0.75	12						
							INITIAL	6	6	14	20
							REORDER	6	4	14	18
2	Primex Tech, IL	0.08	0.20	0.52							
							INITIAL				
3	To Be Selected	0.26	0.26	0.75	12						
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG 25MM TPDS-T M910 (E08204)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	11821	2323	1556	2763	35	260	1524	1542	1510	1513		24847
Gross Cost	209.4	39.9	27.6	40.4	0.6	4.4	24.2	24.5	24.5	24.9	0.0	420.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	209.4	39.9	27.6	40.4	0.6	4.4	24.2	24.5	24.5	24.9	0.0	420.4
Initial Spares												
Total Proc Cost	209.4	39.9	27.6	40.4	0.6	4.4	24.2	24.5	24.5	24.9	0.0	420.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 25mm Armor Piercing (AP) training round is ballistically matched to the 25mm cartridge Armor Piercing Discarding Sabot-Tracer (APDS-T) M791 and the Armor Piercing Fin Stabilized Discarding Sabot, with Tracer M919. The M910 is used in gunnery training and qualification of the M2/M3 Bradley Fighting Vehicles in lieu of the M791 and the M919. This round supports live Bradley Fighting Vehicle training at smaller facilities that cannot use the long range combat cartridges. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. FY00/FY01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals. The maximum range of the current APDS-T and the follow-on Armor Piercing Fin Stabilized Discarding Sabot-Tracer (APFSDS-T) cartridges precludes their use on most training ranges. Bradley Fighting Vehicle crews cannot obtain meaningful training without this round.

TYPE CLASSIFICATION DATE:

1988

ACQUISITION MANAGER:

IOC, Rock Island, Ill

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 25MM TPDS-T M910 (E08204)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE													
Load, Assemble, and Pack		22229	1556	14.59				470	35	13.42	3494	260	13.42
Container PA125		1696	52	37.34				51	1	51.00	389	9	44.70
Pallet Steel w/Adapter		54		404.76				12		410.84	87		417.80
Complete Round					37071	2763	13.42						
SubTotal AMMO Hardware		23979			37071			533			3970		
Production Support Costs													
Production Engineering		2333			2601			43			331		
Quality Assurance		53			4						2		
Acceptance Testing		244											
Interim Transportation		157						1			8		
Industrial Stock Support		812			742			8			57		
SubTotal Prod. Support		3599			3347			52			398		
TOTAL		27578		17.89	40418		14.63	585		16.75	4368		16.78

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 25MM TPDS-T M910 (E08204)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack (LAP) FY 98	Primex Tech Marion, IL	C/FP	IOC	Jun-98	Aug-99	744	#14.10			Apr-98
FY 98	Alliant Tech (Joliet AAP) Joliet, IL	C/FP	IOC	Jun-98	Oct-99	646	#14.45			Apr-98
FY 98	TBS	C/FP	IOC	Mar-99	May-00	166	14.96			Jan-99
FY 99***	TBS	CM-1/FP	IOC	Mar-99	May-00	2763	13.42	Y		Jan-99
FY 00	TBS	CM-2/FP	IOC	Mar-00	Mar-99	35	13.42	Y		Oct-99
FY 01	TBS	CM-3/FP	IOC	Mar-01	May-02	260	13.42	Y		Oct-00
Container PA125 FY 98	Conco Inc. Louisville, KY	C/FP	IOC	Aug-98	Nov-98	46	31.37			Jun-98
FY 98	TBS	C/FP	IOC	Jul-99	Mar-00	6	43.31			May-99
FY 01	TBS	C/FP	IOC	Jul-01	Mar-02	9	44.70	Y		Oct-00
Pallet Steel w/Adapter FY 98	TBS	C/FP	IOC	Jul-99	Mar-00		404.76			May-99
FY 01	TBS	C/FP	IOC	Jul-01	Mar-02		417.80	Y		Oct-00

REMARKS: TBS - To Be Selected
 # Actual contract price for multiple producers
 ***Complete Round
 FY 99 & FY 01 are part of the 3-year Multiyear quantities for Medium Caliber ammunition. This is a below-threshold 3-year Multiyear contract.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 25MM TPDS-T M910 (E08204)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00												LATER
							Calendar Year 99						Calendar Year 99						Calendar Year 00												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Load, Assemble, and Pack																															
	1	98P	A	1.90	1.33	0.57	0.10	0.20	0.20	0.07																					
	2	98P	A	2.69	2.26	0.43	0.16	0.12	0.04	0.11																					
	1	98P	A	0.74		0.74								0.10	0.10	0.10	0.10	0.10	0.10	0.14											
	2	98P	A	0.65		0.65									0.10	0.10	0.10	0.10	0.10	0.10	0.15										
	3	98	A	0.17		0.17																0.17									
	3	99	A	2.76		2.76																0.20	0.20	0.20	0.24	0.24	1.68				
	3	00	A	0.03		0.03																						0.03			
	3	01	A	0.26		0.26																						0.26			
	1	98P	MC	0.06		0.06										0.06															
	2	98	MC	0.05		0.05									0.05																
	3	99	MC	0.07		0.07																0.07									
	3	00	MC	0.08		0.08																						0.08			
	3	01	MC	0.07		0.07																						0.07			
		98P	ALL	4.59	3.59	1.00	0.26	0.32	0.24	0.18																					
		98	ALL	1.67		1.67								0.10	0.15	0.26	0.20	0.20	0.20	0.24	0.15	0.17									
		99	ALL	2.83		2.83																0.27	0.20	0.20	0.24	0.24	1.68				
		00	ALL	0.08		0.08																						0.08			
		01	ALL	0.33		0.33																						0.33			

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Primex Tech, IL	0.33	0.33	0.94	12	INITIAL	4	6	14	20	
2	Alliant Tech, MN	0.26	0.26	0.75	12	REORDER	4	4	14	18	
3	To Be Selected	0.26	0.26	0.75	12	INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 25MM TPDS-T M910 (E08204)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 01												Fiscal Year 02												L A T E R
							Calendar Year 01						Calendar Year 02						Calendar Year 02												
							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	
Load, Assemble, and Pack																															
	1	98P	A	1.90	1.90																										
	2	98P	A	2.69	2.69																										
	1	98P	A	0.74	0.74																										
	2	98P	A	0.65	0.65																										
	3	98	A	0.17	0.17																										
	3	99	A	2.76	1.08	1.68	0.24	0.24	0.24	0.24	0.24	0.24	0.24																		
	3	00	A	0.03		0.03								0.03																	
	3	01	A	0.26		0.26															0.10	0.10	0.06								
	1	98P	MC	0.06	0.06																										
	2	98	MC	0.05	0.05																										
	3	99	MC	0.07	0.07																										
	3	00	MC	0.08		0.08								0.08																	
	3	01	MC	0.07		0.07															0.07										
		98P	ALL	4.59	4.59																										
		98	ALL	1.67	1.67																										
		99	ALL	2.83	1.15	1.68	0.24	0.24	0.24	0.24	0.24	0.24	0.24																		
		00	ALL	0.08		0.08								0.08																	
		01	ALL	0.33		0.33															0.17	0.10	0.06								

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Primex Tech, IL	0.33	0.33	0.94	12	INITIAL	4	6	14	20	
2	Alliant Tech, MN	0.26	0.26	0.75	12	REORDER	4	4	14	18	
3	To Be Selected	0.26	0.26	0.75	12	INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG 25MM APFSDS-T M919 (E08210)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	687	244	242	165	253	200	0.0	0.0	0.0	0.0	0.0	1791
Gross Cost	104.7	32.8	30.0	20.7	29.6	23.8	0.0	0.0	0.0	0.0	0.0	241.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	104.7	32.8	30.0	20.7	29.6	23.8	0.0	0.0	0.0	0.0	0.0	241.6
Initial Spares												
Total Proc Cost	104.7	32.8	30.0	20.7	29.6	23.8	0.0	0.0	0.0	0.0	0.0	241.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 25mm Armor Piercing Fin Stabilized Discarding Sabot - Tracer (APFSDS-T) M919. The M919 uses the state-of-the-art technology by incorporating high energy propellants, low drag design, and improved penetrator material. This item is code A, approved for service use. This item has not transitioned to the SMCA and will be procured at actual cost.

JUSTIFICATION:

The M919 will replace the M791 as the primary armor piercing cartridge for use in the 25mm, M242 Automatic Gun which is mounted on the M2/M3 Bradley Fighting Vehicle System, thus increasing its effectiveness against light threat weapon systems and enhancing its survivability. The current M791 does not defeat the current threat.

Type Classification Date: TC Limited Production Urgent, September 1989.
 TC Standard, September 1993.

Limited Material Release: September 1996.

Acquisition Manager: Project Manager, Tank Main Armament (PM-TMAS)

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 25MM APFSDS-T M919 (E08210)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
1. Complete Round			26305	242	109	17626	165	107	26565	253	105	20800	200	104
2. Other Hardware			650			650			580			560		
SubTotal AMMO Hardware			26955			18276			27145			21360		
Production Support Costs														
Production Engineering			2090			1750			1730			1732		
Quality Assurance			330			295			235			245		
Acceptance Testing			525			325			375			360		
Interim Transportation			100			95			100			100		
SubTotal Prod. Support			3045			2465			2440			2437		
COST - Nonrecurring														
ECP's														
SubTotal COST - Nonrecurring														
TOTAL			30000		124	20741		126	29585		117	23797		119

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 25MM APFSDS-T M919 (E08210)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. COMPLETE ROUND										
FY98	PRIMEX-MARION, IL	SS/FP/Opt	ARDEC	Sep-98	Apr-99	242	109	yes	no	
FY99	PRIMEX-MARION, IL	SS/FP	ARDEC	Jul-99	Mar-00	165	107	yes	no	
FY00	PRIMEX-MARION, IL	SS/FP	ARDEC	Jan-00	Sep-00	253	105	yes	no	
FY01	PRIMEX-MARION, IL	SS/FP	ARDEC	Jan-01	Sep-01	200	104	yes	no	

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG 25MM APFSDS-T M919 (E08210)													Date: February 1999																	
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98												Fiscal Year 99					LATE R													
							Calendar Year 98												Calendar Year 99																		
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB		MAR	APR	MAY	JUN	JUL	AUG	SEP						
1. COMPLETE ROUND	1	FY97P	A	409	83	326													54	54	55	54	54	55													
	1	FY98	A	242		242																															140
	1	FY99	A	165		165																															165
	1	FY00	A	253		253																															253
	1	FY01	A	200		200																															200
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP							
MFR	PRODUCTION RATES			REACHED		MFR Number	ADMIN LEAD TIME			MFR	TOTAL	REMARKS																									
	NAME / LOCATION	MIN.	1-8-5	MAX.	D +		Prior 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.																											
1	PRIMEX - MARION,IL	15	28	40			3	12	8	20																											
							3	4	8	12																											
							INITIAL																														
							REORDER																														
							INITIAL																														
							REORDER																														
							INITIAL																														
							REORDER																														
							INITIAL																														
							REORDER																														
							INITIAL																														
							REORDER																														

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01												LATER
							Calendar Year 00						Calendar Year 01						Calendar Year 01												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. COMPLETE ROUND	1	FY97P	A	409	409																										
	1	FY98	A	242	102	140	28	28	28	28	28																				
	1	FY99	A	165		165					28	28	28	27	27	27															
	1	FY00	A	253		253											21	21	21	21	21	21	21	21	21	22					
	1	FY01	A	200		200																				17					

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	PRIMEX-MARION, IL	15	28	40							

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 25MM APFSDS-T M919 (E08210)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02												Fiscal Year 03												LATER
							Calendar Year 02						Calendar Year 03						Calendar Year 03												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. COMPLETE ROUND	1	FY97P	A	409	409																										
	1	FY98	A	240	242																										
	1	FY98	A	72	165																										
	1	FY00	A	253	253																										
	1	FY01	A	200	17	183	16	17	16	17	16	17	16	17	17	17															

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	PRIMEX - MARION, IL	15	27	40		INITIAL	3	12	8	20	
						REORDER	3	4	8	12	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG, 30MM, ALL TYPES (ER8120)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	231.7	13.0	10.0	9.0	5.4	9.6	9.7	9.8	10.0	10.2	0.0	318.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	231.7	13.0	10.0	9.0	5.4	9.6	9.7	9.8	10.0	10.2	0.0	318.4
Initial Spares												
Total Proc Cost	231.7	13.0	10.0	9.0	5.4	9.6	9.7	9.8	10.0	10.2	0.0	318.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION;

This budget line includes 30MM ALL TYPES

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG, 30MM, ALL TYPES (ER8120)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
CTG 30MM TP M788		9966	924	10.78	9035	815	11.09	5353	443	12.08	9576	851	11.25
TOTAL		9966			9035			5353			9576		

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 30MM TP M788 (E10100)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	7264	299	924	815	443	851	864	877	710	713		13760
Gross Cost	85.5	3.0	10.0	9.0	5.4	9.6	9.7	9.8	10.0	10.2	0.0	162.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	85.5	3.0	10.0	9.0	5.4	9.6	9.7	9.8	10.0	10.2	0.0	162.2
Initial Spares												
Total Proc Cost	85.5	3.0	10.0	9.0	5.4	9.6	9.7	9.8	10.0	10.2	0.0	162.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 30mm Linked Target Practice (TP) M788 cartridge is an electric primed aluminum cased cartridge which is used in the 30mm M230 chain gun weapon system. The system is used as the secondary armament system on the Apache Advanced Attack Helicopter (AH-64). This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. FY00/01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE:
1982

ACQUISITION MANAGER:
IOC, Rock Island, Ill

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 30MM TP M788 (E10100)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Complete Round			8602	924	9.31	8341	815	10.23	4537	443	10.23	8712	851	10.23
SubTotal AMMO Hardware			8602			8341			4537			8712		
Production Support Costs														
Production Engineering			879			516			739			726		
Quality Assurance			22			11			11			11		
Acceptance Testing			99											
Interim Transportation			62											
Industrial Stock Support			302			167			66			127		
SubTotal Prod. Support			1364			694			816			864		
TOTAL			9966		10.78	9035		11.09	5353		12.08	9576		11.25

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 30MM TP M788 (E10100)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Complete Round FY 98	Primex Technologies Marion, IL	C/FP	IOC	Jun-98	Mar-99	924	9.31			Apr-98
FY 99****	TBS	CM-1/FP	IOC	Mar-99	Mar-00	815	10.23	Y		Jan-99
FY 00****	TBS	CM-2/FP	IOC	Mar-00	Mar-01	443	10.23	Y		Oct-99
FY 01****	TBS	CM-3/FP	IOC	Mar-01	Mar-02	851	10.23	Y		Oct-00

REMARKS: ****This is a below-threshold 5-year Multiyear contract.
TBS - To Be Selected

FY 00 / 01 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: CTG 30MM TP M788 (E10100)											Date: February 1999														
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 01												Fiscal Year 02												LATER
							Calendar Year 01						Calendar Year 02						Calendar Year 02												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Complete Round																															
	1	98	A	0.61	0.61																										
	2	98	A	0.92	0.92																										
	3	99	A	0.81	0.81																										
	3	00	A	0.44		0.44						0.12	0.12	0.12	0.08																
	3	01	A	0.85		0.85																		0.12	0.12	0.12	0.12	0.12	0.12	0.13	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Alliant Tech, MN	0.05	0.12	0.30		INITIAL	6	6	12	18	
2	Primex Tech, IL	0.08	0.24	0.72		REORDER	6	4	12	16	
3	To Be Selected	0.05	0.12	0.30		INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG, 40MM, ALL TYPES (ER8001)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	585.5	32.1	30.4	35.5	36.6	46.0	46.9	53.2	48.9	47.4	0.0	962.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	585.5	32.1	30.4	35.5	36.6	46.0	46.9	53.2	48.9	47.4	0.0	962.5
Initial Spares												
Total Proc Cost	585.5	32.1	30.4	35.5	36.6	46.0	46.9	53.2	48.9	47.4	0.0	962.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes 40MM ALL TYPES

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG, 40MM, ALL TYPES (ER8001)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
CTG 40MM TP M918 LINKED F/MK19 MG			23436	1455	16.11	30405	2000	15.20	29949	1704	17.57	39190	2302	17.02
CTG 40MM PRACTICE M781			5067	2131	2.38	2691	1053	2.56	3836	1011	3.79	4209	1104	3.81
CTG 40MM NON-LETHAL XM1006			1213	20	67.39	1634	65	25.14	1576	64	11.75	1899	90	21.10
CTG 40MM PRACTICE M385A1						788	57	13.84	750	51	14.78	742	50	14.98
CTG 40MM CS M651			718											
CTG 40MM HEDP M430A1 F/MK19 MG									534					
TOTAL			30434			35518			36645			46040		

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 40MM TP M918 LINKED F/MK19 MG (E71100)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	8461	2124	1455	2000	1704	2302	2306	2355	2408	2339		27454
Gross Cost	127.0	30.9	23.4	30.4	29.9	39.2	39.4	40.1	40.9	38.9	0.0	440.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	127.0	30.9	23.4	30.4	29.9	39.2	39.4	40.1	40.9	38.9	0.0	440.1
Initial Spares												
Total Proc Cost	127.0	30.9	23.4	30.4	29.9	39.2	39.4	40.1	40.9	38.9	0.0	440.1
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 40mm Target Practice (TP) cartridge for the MK19 machine gun is a high velocity training projectile with realistic signature effects providing sufficient flash, smoke, and sound upon impact to be seen/heard at a 1200 meter minimum range under standard atmospheric conditions and level terrain. In addition to providing audible/visual signature for day or night firing, the TP for MK19 gun will minimize hazard to troops in the training area. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. FY00/01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals. This cartridge is required since firing the standard service 40mm high-explosive dual-purpose (HEDP) M430 cartridge is prohibited at many training ranges. The M918 allows frequent and safe MK19 MOD 3 40mm Grenade Machine Gun and M129 Grenade launcher training.

ACQUISITION MANAGER:
 IOC, Rock Island, IL

TYPE CLASSIFICATION DATE: 1985

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 40MM TP M918 LINKED F/MK19 MG (E71100)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE													
Load, Assemble, and Pack		5583	1455	3.84	8678	2000	4.34	9896	1704	5.81	38236	2302	16.61
Proj Assy		8030	1498	5.36	11102	2060	5.39	18861	1755	10.74			
Ctg Case M169		1746	1513	1.15	2602	2080	1.25						
Ctg Case Assy								37	10	3.65			
M2 SP .019 f/40MM (LB)		542	22	24.85									
*M2 SP .019 f/40MM (LB)					596	30	19.87	404	26	15.82			
M550 Escape Assy		2565	1532	1.67	3433	2106	1.63						
Det Stab M55		578	1535	0.38	1206	2110	0.57						
Link M16A2		1179	1542	0.76	1630	2120	0.77						
SubTotal AMMO Hardware		20223			29247			29198			38236		
Production Support Costs													
Production Engineering		2067			855			325			379		
Quality Assurance		51			8			8			8		
Acceptance Testing		233			3			10			12		
Interim Transportation		146			302			389					
Industrial Stock Support		716			586			423			555		
SubTotal Prod. Support		3213			1754			1155			954		
COST - Nonrecurring													
Government Furnished Material					-596			-404					
SubTotal COST-Nonrecurring					-596			-404					
TOTAL		23436		16.11	30405		15.20	29949		17.57	39190		17.02

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition				Weapon System Type:			P-1 Line Item Nomenclature: CTG 40MM TP M918 LINKED F/MK19 MG (E71100)				
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date	
Load, Assemble, and Pack FY 98	General Dynamics (Milan AAP) Milan, TN	SS/CPAF	IOC	Mar-98	Jan-00	1455	3.84			Jan-98	
FY 99	American Ordnance (Milan AAP) Milan, TN	SS/FP	IOC	Mar-99	Jul-00	2000	4.34	Y		Jan-99	
FY 00	American Ordnance (Milan AAP) Milan, TN	SS/FP	IOC	Dec-99	Apr-01	1704	5.81	Y		Oct-99	
FY 01***	American Ordnance (Milan AAP) Milan, TN	SS/FP	IOC	Dec-00	Apr-02	2302	16.61	Y		Oct-00	
Proj Assy** FY 98	Alphatech Sys Palm Bay, FL	C/FP	IOC	Aug-98	May-99	1498	5.36			Jun-98	
FY 99	TBS	C/FP	IOC	Jul-99	Apr-00	2060	5.39	Y		May-98	
FY 00	TBS	C/FP	IOC	Jul-00	Mar-01	1755	10.74	Y		Oct-99	
Ctg Case M169 FY 98	Amron Corp Waukesha, WA	SS/FP	IOC	May-98	Dec-98	1513	1.15	Y		Mar-98	
FY 99	TBS	C/FP	IOC	Jun-99	Jan-00	2080	1.25	Y		Apr-98	
Ctg Case Assy FY 00	American Ordnance (Milan AAP) Milan, TN	SS/FP	IOC	Mar-00	Jul-00	10	3.65	Y		Oct-99	

REMARKS: TBS - To Be Selected
 **Pacing Component
 ***Complete Round

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 40MM TP M918 LINKED F/MK19 MG (E71100)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
*M2 SP .019 f/40MM (LB) FY 98	Alliant Tech (Radford AAP) Radford, VA	SS/FP	IOC	Jan-98	Apr-99	22	24.85			Nov-97
FY 99	Stock Issue	N/A		N/A	N/A	30	N/A			
FY 00	Stock Issue	N/A		N/A	N/A	26	N/A			
M550 Escape Assy FY 98	Amtech Corp Janesville, WI	C/FP	IOC	Feb-98	Jul-99	1532	1.67			Dec-97
FY 99	TBS	C/FP	IOC	Mar-99	Jan-00	2106	1.63			
Det Stab M55 FY 98	Day & Zimmerman (Lone Star AAP) Texarkana, TX	SS/CPFF	IOC	May-98	Oct-98	1535	0.38			Mar-98
FY 99	Day & Zimmerman (Lone Star AAP) Texarkana, TX	SS/CPFF	IOC	Mar-99	Oct-99	2110	0.57	Y		Jan-99
Link M16A2 FY 98	Ferrulmatic Totawa, NJ	C/FP	IOC	May-98	Sep-98	1542	0.76			Mar-98
FY 99	TBS	C/FP	IOC	Jul-99	Jan-00	2120	0.77	Y		May-99

REMARKS: *Government Furnished Material
TBS - To Be Selected

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 40MM TP M918 LINKED F/MK19 MG (E71100)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00												L A T E R
							Calendar Year 99												Calendar Year 00												
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	
							C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	A	P	A	U	U	U	E	
Load, Assemble, and Pack																															
	1	98P	A	2.04	0.07	1.97																									
	1	98	A	1.46		1.46																									
	1	99	A	2.00		2.00																									
	1	00	A	1.70		1.70																									
	1	01	A	2.30		2.30																									
	1	98P	MC	0.62		0.62																									
	1	98	MC	0.45		0.45																									
	2	99	MC	0.77		0.77																									
	2	00	MC	0.43		0.43																									
	2	01	MC	0.41		0.41																									
	1	98P	SOF	0.15	0.15																										
	1	98	SOF	0.06		0.06																									
	2	99	SOF	0.11		0.11																									
	2	00	SOF	0.06		0.06																									
	2	01	SOF	0.14		0.14																									

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Milan AAP, TN		0.38	1.30			6	3	19	22	Pacing Leadtime Initial 6 10 9 19 Reorder 6 10 6 16
2	To Be Selected		0.38	1.30			6	3	16	19	
3	Dayron Corp, FI		0.10	0.25							
4	Alphatech, FL		0.10	0.25							

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: **CTG 40MM TP M918 LINKED F/MK19 MG (E71100)** Date: **February 1999**

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00												L A T E R																					
							Calendar Year 99												Calendar Year 00																																	
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S		O	N	D	J	F	M	A	M	J	J	A	S									
C	T	V	A	E	A	P	A	U	U	U	E	C	T	V	C	A	E	A	P	A	U	U	U	E	C	T	V	C	A	E	A	P	A	U	U	U	E	C	T	V	C											
		98P	ALL	2.81	0.22	2.59							0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.92	0.16	0.30	0.16																									
		98	ALL	1.97		1.97																						0.15	0.30	0.36	0.30	0.30	0.36	0.20																		
		99	ALL	2.88		2.88																																			0.43	0.32	0.32				1.81					
		00	ALL	2.19		2.19																																											2.19			
		01	ALL	2.85		2.85																																										2.85				
Pacing Component: Proj Assy																																																				
		3	98P	TOT	0.73	0.73			0.16	0.16	0.16	0.16	0.09																																							
		2	98P	TOT	1.09	1.09					0.05	0.08	0.08	0.10	0.10	0.12	0.15	0.15	0.15	0.11																																
		3	98P	TOT	0.73	0.73			0.10	0.14	0.16	0.16	0.17																																							
		4	98	TOT	1.75	1.75							0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.10																					
		2	99	TOT	2.96	2.96																										0.23	0.23	0.23	0.23	0.23	0.23	0.23														1.58
		2	00	TOT	3.09	3.09																																													3.09	

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS Pacing Leadtime
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	American Ordnance, TN		0.38	1.30			INITIAL	6	3	19	Initial 6 10 9 19 Reorder 6 10 6 16
							REORDER	6	3	19	
2	To Be Selected		0.38	1.30			INITIAL				
							REORDER				
3	Dayron Corp, FL		0.10	0.25			INITIAL				
							REORDER				
4	Alphatech, FL		0.10	0.25			INITIAL				
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				

FY 00 / 01 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: CTG 40MM TP M918 LINKED F/MK19 MG (E71100)															Date: February 1999									
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 03											Fiscal Year 04									L A T E R			
							Calendar Year 03											Calendar Year 04												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
		98P	ALL	2.81	2.81																									
		98	ALL	1.97	1.97																									
		99	ALL	2.88	2.88																									
		00	ALL	2.19	2.19																									
		01	ALL	2.85	1.64	1.21	0.31	0.20	0.20	0.20	0.20	0.10																		
Pacing Component: Proj Assy																														
	3	98P	TOT	0.73	0.73																									
	2	98P	TOT	1.09	1.09																									
	3	98P	TOT	0.73	0.73																									
	4	98	TOT	1.75	1.75																									
	2	99	TOT	2.96	2.96																									
	2	00	TOT	3.09	1.50	1.59	0.25	0.25	0.25	0.25	0.25	0.34																		
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS Pacing Leadtime																			
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.																						
1	Milan AAP, TN		0.38	1.30																										
2	To Be Selected		0.38	1.30						Initial 6 10 9 19 Reorder 6 10 6 16																				
3	Dayron Corp, FL		0.10	0.25																										
4	Alphatech, FL		0.10	0.25																										

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 40MM PRACTICE M781 (E74200)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	13350	585	2131	1053	1011	1104	1191	1330	1438	1535		24728
Gross Cost	31.7	1.2	5.1	2.7	3.8	4.2	4.6	5.2	5.7	6.2	0.0	70.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	31.7	1.2	5.1	2.7	3.8	4.2	4.6	5.2	5.7	6.2	0.0	70.4
Initial Spares												
Total Proc Cost	31.7	1.2	5.1	2.7	3.8	4.2	4.6	5.2	5.7	6.2	0.0	70.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M781 practice cartridge replaced the M407 practice cartridge. The M781 is a low cost , unfuzed fixed round of practice ammunition ready for use as issued and is compatible with the M79 and M203 Grenade Launchers. The cartridge case is made of plastic material and the projectile is also plastic with an aluminum rotating band. The ogive is made of a frangible plastic material and contains a colored dye in granular form, the consistency of talcum powder which is used to generate a signature. The propulsion system consists of a standard .38 caliber blank. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. FY 00/FY 01 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: 1978

ACQUISITION MANAGER: IOC, Rock Island, IL

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 40MM PRACTICE M781 (E74200)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost \$000	Qty x1000	UnitCost \$	TotalCost \$000	Qty x1000	UnitCost \$	TotalCost \$000	Qty x1000	UnitCost \$	TotalCost \$000	Qty x1000	UnitCost \$
AMMUNITION HARDWARE													
Complete Round		4373	2131	2.05	2330	1053	2.21	3572	1011	3.53	3968	1104	3.59
SubTotal AMMO Hardware		4373			2330			3572			3968		
Production Support Costs													
Production Engineering		447			303			169			175		
Quality Assurance		11			11			2			9		
Acceptance Testing		50						41					
Interim Transportation		31											
Industrial Stock Support		155			47			52			57		
SubTotal Prod. Support		694			361			264			241		
TOTAL		5067		2.38	2691		2.56	3836		3.79	4209		3.81

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 40MM PRACTICE M781 (E74200)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Complete Round FY 98	Martin Electronics Perry, FL	C/FP	IOC	Jun-98	Mar-99	2131	2.05			Apr-98
FY 99	TBS	C/FP	IOC	Mar-99	Mar-00	1053	2.21	Y		Jan-99
FY 00	TBS	C/FP	IOC	Feb-00	Mar-01	1011	3.53	Y		Oct-99
FY 01	TBS	C/FP	IOC	Feb-01	Mar-02	1104	3.59	Y		Oct-00

REMARKS: TBS - To Be Selected

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00												L A T E R
							Calendar Year 99												Calendar Year 00												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Complete Round																															
	1	98P	A	0.65	0.01	0.64	0.01	0.02	0.08	0.12	0.12	0.12	0.12	0.05																	
	2	98P	A	0.34		0.34							0.08	0.08	0.08	0.10															
	3	98P	A	0.91	0.48	0.43	0.04	0.02	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03														
	4	98	A	2.13		2.13						0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.15											
	5	99	A	1.05		1.05														0.15	0.15	0.15	0.15	0.15	0.15	0.15					
	5	00	A	1.01		1.01																				1.01					
	5	01	A	1.10		1.10																				1.10					
	1	98P	MC	0.13		0.13							0.07	0.04	0.02																
	2	98	MC	0.21		0.21							0.08	0.08	0.05																
	5	99	MC	0.74		0.74														0.12	0.12	0.12	0.12	0.12	0.14						
	5	00	MC	0.26		0.26																				0.26					
	5	01	MC	0.25		0.25																				0.25					
	3	98P	SOF	0.47	0.43	0.04											0.04														
	2	98P	SOF	0.16		0.16								0.02	0.08	0.06															
	5	99	SOF	0.12		0.12														0.03	0.03	0.03	0.03								
	5	00	SOF	0.08		0.08																				0.08					
	5	01	SOF	0.04		0.04																				0.04					

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Dayron Corp, FL		0.23	0.46		INITIAL		6	5	13	18
2	Lance Ordnance, FL		0.23	0.46		REORDER		6	5	10	15
3	Action Mfg, PA		0.23	0.46		INITIAL					
4	Martin Elec, FL		0.23	0.46		REORDER					
5	To Be Selected		0.23	0.46		INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 40MM PRACTICE M781 (E74200)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00												L A T E R									
							Calendar Year 99												Calendar Year 00																					
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S										
							C	T	V	E	A	E	A	P	A	U	U	E	C	T	V	E	A	E	A	P	A	U	U	E										
			ALL	1.80	0.44	1.36	0.01	0.02	0.08	0.12	0.12	0.12	0.12	0.20	0.12	0.07	0.08	0.12	0.08	0.10																				
			ALL	1.07	0.48	0.59	0.04	0.02	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.11	0.09	0.03																					
			ALL	2.13		2.13							0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.15																			
			ALL	1.91		1.91																																		
			ALL	1.35		1.35																																	1.35	
			ALL	1.39		1.39																																1.39		

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS	
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.				
1	Dayron Corp, FL		0.23	0.46			INITIAL	6	5	13	18	
2	Lance Ordnance, FL		0.23	0.46			REORDER	6	5	10	15	
3	Action Mfg, PA		0.23	0.46			INITIAL					
4	Martin Elec, FL		0.23	0.46			REORDER					
5	To Be Selected		0.23	0.46			INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 40MM PRACTICE M781 (E74200)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 01												Fiscal Year 02												L A T E R
							Calendar Year 01						Calendar Year 02						Calendar Year 02												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Complete Round																															
	1	98P	A	0.65	0.65																										
	2	98P	A	0.34	0.34																										
	3	98P	A	0.91	0.91																										
	4	98	A	2.13	2.13																										
	5	99	A	1.05	1.05																										
	5	00	A	1.01		1.01						0.15	0.15	0.15	0.15	0.15	0.15	0.11													
	5	01	A	1.10		1.10															0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.05			
	1	98P	MC	0.13	0.13																										
	2	98	MC	0.21	0.21																										
	5	99	MC	0.74	0.74																										
	5	00	MC	0.26		0.26						0.08	0.08	0.08	0.02																
	5	01	MC	0.25		0.25															0.08	0.08	0.08	0.01							
	3	98P	SOF	0.47	0.47																										
	2	98P	SOF	0.16	0.16																										
	3	98P	SOF	0.12	0.12																										
	5	98	SOF	0.08		0.08						0.08																			
	5	99	SOF	0.04		0.04																									

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS	
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.				
1	Dayron Corp, FL		0.23	0.46			INITIAL	6	5	13	18	
							REORDER	6	5	10	15	
2	Lance Ordnance, FL		0.23	0.46			INITIAL					
3	Action Mfg, PA		0.23	0.46			REORDER					
4	Martin Elec, FL		0.23	0.46			INITIAL					
5	To Be Selected		0.23	0.46			REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 40MM PRACTICE M781 (E74200)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 01												Fiscal Year 02												L A T E R
							Calendar Year 01						Calendar Year 02						Calendar Year 02												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
			ALL	1.80	1.80																										
			ALL	1.07	1.07																										
			ALL	2.13	2.13																										
			ALL	1.91	1.91																										
			ALL	1.35		1.35						0.23	0.23	0.23	0.23	0.17	0.15	0.11													
			ALL	1.39		1.39														0.19	0.23	0.23	0.23	0.16	0.15	0.15	0.05				

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	INITIAL	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.				Prior 1 Oct.	After 1 Oct.			
1	Dayron Corp, FL		0.23	0.46			INITIAL	6	5	13	18	
							REORDER	6	5	10	15	
2	Lance Ordnance, FL		0.23	0.46			INITIAL					
3	Action Mfg, PA		0.23	0.46			REORDER					
4	Martin Elec, FL		0.23	0.46			INITIAL					
5	To Be Selected		0.23	0.46			REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 40MM PRACTICE M781 (E74200)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 03												Fiscal Year 04												L A T E R
							Calendar Year 03												Calendar Year 04												
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	
							C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	A	P	A	U	U	U	E	
Complete Round																															
	1	98P	A	0.65	0.65																										
	2	98P	A	0.34	0.34																										
	3	98P	A	0.91	0.91																										
	4	98	A	2.13	2.13																										
	5	99	A	1.05	1.05																										
	5	00	A	1.01	1.01																										
	5	01	A	1.10	1.05	0.05	0.05																								
	2	98P	MC	0.13	0.13																										
	1	98	MC	0.21	0.21																										
	5	99	MC	0.74	0.74																										
	5	00	MC	0.26	0.26																										
	5	01	MC	0.25	0.25																										
	3	98P	SOF	0.47	0.47																										
	2	98	SOF	0.16	0.16																										
	3	99	SOF	0.12	0.12																										
	5	00	SOF	0.08	0.08																										
	5	01	SOF	0.04	0.04																										

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
		INITIAL	REORDER	INITIAL			REORDER				
1	Dayron Corp, FL		0.23	0.46			6	5	13	18	
2	Lance Ordnance, FL		0.23	0.46			6	5	10	15	
3	Action Mfg, PA		0.23	0.46							
4	Martin Elec, FL		0.23	0.46							
5	To Be Selected		0.23	0.46							

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

NONLETHAL WEAPONS CAPABILITY SET (E91800)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty					5	5	5	5	5	5		30
Gross Cost	0.0	0.0	0.0	0.0	8.0	8.4	5.9	5.9	5.9	5.9	0.0	40.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	8.0	8.4	5.9	5.9	5.9	5.9	0.0	40.0
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	8.0	8.4	5.9	5.9	5.9	5.9	0.0	40.0
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The Non Lethal Weapon (NLW) Capability Set includes Soldier Protection items, Nonlethal Munitions, Training items and other items. The sets will sustain and improve capability in the theater and at training centers, i.e., EUCOM, SOUTHCOM, PACOM, CENTCOM, CONUS Reserve, USAIC and USAMPS and will provide resupply/replenishment for CINC stocks, provide Division capability sets as required, and continue to upgrade sets as NLW technology improves.

JUSTIFICATION:

The FY00-01 procurement will provide the friendly force a non-lethal means to temporarily distract/disorient belligerents.

Acquisition Manager: TACOM-ARDEC, Picatinny, NJ

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: NONLETHAL WEAPONS CAPABILITY SET (E91800)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
AMMUNITION HARDWARE														
COMPLETE SET		A							7655	5	1531	8050	5	1610
SubTotal AMMO Hardware									7655			8050		
Production Support Costs														
Production Engineering									189			239		
Quality Assurance									75			90		
Acceptance Testing									45			50		
Interim Transportation									25			20		
SubTotal Prod. Support									334			399		
COST - Nonrecurring														
First Article Testing														
Value Engineering														
Product Improvement														
Government Furnished Material														
SubTotal COST-Nonrecurring														
TOTAL									7989			8449		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: NONLETHAL WEAPONS CAPABILITY SET (E91800)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Complete Set										
FY00	Unknown	SS/CPIF	TACOM-ARDEC	May-00	Sep-00	5	1531	Yes		
FY01	Unknown	SS/CPIF	TACOM-ARDEC	Mar-01	Jul-01	5	1610	Yes		

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:
NONLETHAL WEAPONS CAPABILITY SET (E91800)

Date:
February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01												LATER
							Calendar Year 00						Calendar Year 01						Calendar Year 01												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Complete Set	1	00	A	5.0		5.0																									
		01	A	5.0		5.0																									

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

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D+	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS	
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.				
1	Unknown		1	2			INITIAL	4	9	4	13	
							REORDER	4	6	4	10	
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:
NONLETHAL WEAPONS CAPABILITY SET (E91800)

Date:
February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02												Fiscal Year 03												LATER
							Calendar Year 02						Calendar Year 03						Calendar Year 03												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Complete Set	1	00	A	5.0	5.0																										
		01	A	5.0	1.5	3.5	0.5	0.5	0.5	0.5	0.5	0.5																			

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Unknown	1	2			INITIAL	4	9	4	13	
						REORDER	4	6	4	10	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

60MM MORTAR, ALL TYPES (E89600)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	186.3	22.4	8.5	23.3	15.6	28.6	25.8	29.3	40.2	41.3	0.0	421.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	186.3	22.4	8.5	23.3	15.6	28.6	25.8	29.3	40.2	41.3	0.0	421.3
Initial Spares												
Total Proc Cost	186.3	22.4	8.5	23.3	15.6	28.6	25.8	29.3	40.2	41.3	0.0	421.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This line includes 60mm, ALL TYPES.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: 60MM MORTAR, ALL TYPES (E89600)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
CTG MORTAR 60MM 1/10 PRAC M766						2493	4	623.25	2951	4	737.75	2749	4	687.25
CTG MORTAR 60MM ILLUM M721/M767												5806	9	645.11
CTG MORTAR 60MM SMOKE WP M722			4563	23	201.65	374						2987	15	199.00
60MM MORTAR, FULL RANGE PRACTICE						20470	47	436.00						
CTG MORTAR 60MM HE M720/M720A1									12665	194	65.44	17066	79	216.03
CTG 60MM HE M888 W/FUZE M935			3934	26	75.57									
TOTAL			8497			23337			15616			28608		

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG MORTAR 60MM HE M720/M720A1 W/M734 FU (E67303)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	1093			47					28	27		1195
Gross Cost	112.1	2.1	0.0	20.5	0.0	0.0	0.0	0.0	12.1	12.3	0.0	159.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	112.1	2.1	0.0	20.5	0.0	0.0	0.0	0.0	12.1	12.3	0.0	159.0
Initial Spares												
Total Proc Cost	112.1	2.1	0.0	20.5	0.0	0.0	0.0	0.0	12.1	12.3	0.0	159.0
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M720/M720A1 60mm High Explosive Cartridge with Multi-Option Fuze is designed for use with the M224 Lightweight Company Mortar currently fielded to all light infantry units in the Army. The round is used against personnel and materiel providing both fragmentation and blast effect. It consists of a multi-option fuze, tail assembly, and projectile body with a TNT or composition B explosive fill. A materiel change funded in FY97 will result in a change to the explosive fill by incorporation of an insensitive munition. The round uses a proximity fuze setting to burst at a height over the target which is optimized for lethality. The M720A1 version incorporates the more reliable and countermeasure resistant M734A1 Multi-option fuze. This item is code A; it has been approved for service use.

JUSTIFICATION:

The FY99 procurement builds a war reserve stockpile in support fielded Mortar Weapons.

Type Classification date: M720 STD Jan 86; M720A1 STD June 1999

ACQUISITION MANAGER: PM Mortars

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG MORTAR 60MM HE M720/M720A1 W/M734 FU (E67303)			Weapon System Type: M224 60mm Lightweight Company Mortar			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
1. CTG, M720A1, LAP														
2. SHELL BODY HF1														
3. PROP CHG M235														
4. IGN CTG M702														
5. FUZE, M734A1 MO														
6. FIN M27														
SubTotal AMMO Hardware						16595								
Production Support Costs														
Production Engineering														
Quality Assurance														
Acceptance Testing														
Interim Transportation														
SubTotal Prod. Support						2537								
COST - Nonrecurring														
M720A1 Qualification Engr & Test														
SubTotal COST-Nonrecurring						1338								
TOTAL						20470		436						

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG MORTAR 60MM HE M720/M720A1 W/M734 FU (E67303)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. CTG, M720A1, LAP FY 99	Unknown	C/FP	TACOM	Sep-99	Jun-01	47	63	No	Jul 99	Aug-99
2. SHELL BODY FY 99	Unknown	C/FP	TACOM	Jun-99	Jul-00	49	10	Yes		Apr-99
3. PROP CHG M235 FY 99	Valentec Sys Inc Mt Arlington NJ	OPT	TACOM	Jun-99	May-00	52	5	Yes		Oct-98
4. IGN CTG M702 FY 99	GDOS Milan TN	OPT	TACOM	Jun-99	Feb-00	49	13	Yes		Oct-98
5. FUZE, M734A1 MO FY 99	KDI Cincinatti OH	OPT	TACOM	Jun-99	Apr-00	49	266	Yes		Feb-98
6. FIN M27 FY 99	Wilkinson Mfg Co, Ft Calhoun NE	OPT	TACOM	Jun-99	Feb-00	49	6	Yes		Oct-98

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG MORTAR 60MM HE M720/M720A1 W/M734 FU (E67303)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01												L A T E R
							Calendar Year 00						Calendar Year 01						Calendar Year 01												
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	
							C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	A	P	A	U	U	U	E	
1. CTG, M720A1, LAP	1	FY 99	A	47	0	47																									
																						3	6	12	15						
2. FUZE, M734A1 M0	2	FY 99	A	43	0	43											2	13	13	15											

41

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

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Unknown	6	15	40		INITIAL	6	6	24	30	M734A1 fuze is used on both M720A1 and M934A1 rounds. Production starts in Apr 00. M934A1 requirement will be satisfied first.
						REORDER	3	4	21	25	
2	KDI Cincinatti OH	10	15	40		INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG MORTAR 60MM HE M720/M720A1 W/M734 FU (E67303)													Date: February 1999											
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02												Fiscal Year 03												L A T E R
							Calendar Year 02						Calendar Year 03						Calendar Year 03												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. CTG, M720A1, LAP	1	FY 99	A	47	36	11	5	6																							
2. FUZE, M734A1 M0	2	FY 99	A	43	43																										
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MFR	PRODUCTION RATES				REACHED	MFR	ADMIN LEAD TIME				MFR	TOTAL	REMARKS M734A1 fuze is used on both M720A1 and M934A1 rounds. Production starts in Apr 00. M934A1 requirement will be satisfied first.																		
	NAME / LOCATION	MIN.	1-8-5	MAX.	D +	Number	Prior 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.																					
1	Unknown	6	15	40			6	6	24	30																					
2	KDI Cincinatti OH	10	15	40			3	4	21	25																					

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 60MM HE M888 W/FUZE M935/XM768

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty		26	26		194	79	58	58	58	58		557
Gross Cost	0.0	2.0	3.9	0.0	12.7	17.1	11.9	13.7	12.6	12.8	0.0	86.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	2.0	3.9	0.0	12.7	17.1	11.9	13.7	12.6	12.8	0.0	86.7
Initial Spares												
Total Proc Cost	0.0	2.0	3.9	0.0	12.7	17.1	11.9	13.7	12.6	12.8	0.0	86.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The round is used against personnel and materiel providing both fragmentation and blast effect. It uses the M935 fuze, fin assembly, and a projectile body with a TNT explosive fill. The round uses a point detonating fuze. This item is Code A, it has been approved for service use.

JUSTIFICATION:

FY 00/01 supports annual peacetime training requirements and builds toward a depot level.

TYPE CLASSIFICATION DATE: 1986

ACQUISITION MANAGER: FY 00 -- IOC; Starting FY 01 -- PM Mortars

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 60MM HE M888 W/FUZE M935/XM768 (E67304)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE													
Load, Assemble, and Pack		419	26	15.84				5284	194	27.30			
Load, Assemble, and Pack XM768											4623	79	58.52
*M720 Proj Mpts		281	28	10.22				2057	201	10.22			
Shell Body HF1											1422	82	17.34
*Comp B Type I Grade A (LB)		33	21	1.55				240	155	1.55			
*TNT Type I Flake (LB)		15	11	1.41				109	77	1.41			
M27 Fin Assembly		151	28	5.48				1136	201	5.65	752	82	9.17
M702 Ignition Cartridge		303	28	11.00				2358	201	11.71	1624	82	19.80
M9 Flake .006 f/60MM (LB)		12		57.90									
*M9 Flake .006 f/60MM (LB)								88	2	57.00			
Nitrocellulose WW Gr A (LB)		4	1	4.04									
*Nitrocellulose WW Gr A (LB)								32	6	5.00			
M10 Flake .008 (LB)		41	2	19.59									
*M10 Flake .008 (LB)								294	15	19.00			
LAP Chq Prop M204		102	107	0.96				665	782	0.85			
Prop Charge M235											1622	322	5.04
Container Assy M204		187	107	1.75				1767	782	2.26			
M935 Fuze		96	27	3.53									
*M935 Fuze								1111	199	5.57			
Fz Mpts M935		279	28	10.15				813	81	10.00			
*Fz Mpts M935								2885	120	24.04			
Fuze XM783											5306	82	64.71
*Comp A-5 Class 1 (LB)		6	1	7.61				46	6	7.85			
*Det Stab M76		164	29	5.63									
*Det M98		143	29	4.91									
*Delay Element M53		273	29	9.37									
*Lead Assy 9234683		32	29	1.12									
RDX Type II Class 3 (LB)				8.77									
*RDX Type II Class 3 (LB)								2		8.57			
TOTAL		2541						18887			15349		
SubTotal AMMO Hardware													
Production Support Costs													
Production Engineering		260						40			726		
Quality Assurance		6						6			182		
Acceptance Testing		29						75			140		
Interim Transportation		18						250			70		
Industrial Stock Support		92						271					

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 60MM HE M888 W/FUZE M935/XM768 (E67304)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
SubTotal Prod. Support			405						642			1118		
COST - Nonrecurring														
Materiel Change			1935											
Government Furnished Material			-947						-6864			599		
First Article/IPT														
SubTotal COST-Nonrecurring			988						-6864			599		
TOTAL			3934		75.57				12665		65.44	17066		216.03

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 60MM HE M888 W/FUZE M935 (E67304)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack FY 98	General Dynamics (Milan AAP) Milan, TN	SS/CPAF	IOC	May-98	Mar-99	26	15.84			Mar-98
FY 00	General Dynamics (Milan AAP) Milan, TN	SS/FP	IOC	Dec-99	Dec-00	194	27.30	Y		Oct-99
Load, Assemble, and Pack XM768 FY 01	TBS	C/FP	TACOM	Apr-01	Mar-03	79	58.52	N	Jun 00	Oct-00
*M720 Proj Mpts FY 98	Stock Issue	N/A	N/A	N/A	N/A	28	N/A			
FY 00	Stock Issue	N/A	N/A	N/A	N/A	201	N/A			
Shell Body HF1 FY 01	TBS	C/FP	TACOM	Jan-01	Feb-02	76	17.34	Y		Oct-00
*Comp B Type I Grade A (LB) FY 98	Stock Issue	N/A	N/A	N/A	N/A	21	N/A			
FY 00	Stock Issue	N/A	N/A	N/A	N/A	155	N/A			
*TNT Type I Flake (LB) FY 98	Stock Issue	N/A	N/A	N/A	N/A	11	N/A			
FY 00	Stock Issue	N/A	N/A	N/A	N/A	77	N/A			

REMARKS: *Government Furnished Material
TBS - To Be Selected

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 60MM HE M888 W/FUZE M935 (E67304)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
M27 Fin Assembly FY 98	Wilkinson Mfg Fort Calhoun, NE	C/FP	IOC	May-98	Dec-98	28	5.48			Mar-98
FY 00	TBS	C/FP	IOC	Dec-99	Jul-00	201	5.65	Y		Oct-99
FY 01	TBS	C/FP	TACOM	Mar-01	Feb-02	76	9.17			Oct-00
M702 Ignition Cartridge FY 98	General Dynamics (Milan AAP) Milan, TN	SS/CPAF	IOC	May-98	Dec-98	28	11.00			Mar-98
FY 00	American Ordnance (Milan AAP) Milan, TN	SS/FP	IOC	Dec-99	Jul-00	201	11.71	Y		Oct-99
FY 01	TBS	C/FP	TACOM	Jan-01	Feb-02	76	19.80	Y		Oct-00
*M9 Flake .006 f/60MM (LB) FY 98	Alliant Tech (Radford AAP) Radford, VA	SS/FP	IOC	May-98	Nov-98	0	57.90			Mar-98
FY 00	Stock Issue	N/A	N/A	N/A	N/A	2	N/A			
*Nitrocellulose WW Gr A (LB) FY 98	Alliant Tech (Radford AAP) Radford, VA	SS/FP	IOC	May-98	Oct-98	1	4.04			Mar-98
FY 00	Stock Issue	N/A	N/A	N/A	N/A	6	N/A			
*M10 Flake .008 (LB) FY 98	Alliant Tech (Radford AAP) Radford, VA	SS/FP	IOC	May-98	Nov-98	2	19.59			Mar-98
FY 00	Stock Issue	N/A	N/A	N/A	N/A	15	N/A			

REMARKS: *Government Furnished Material
TBS - To Be Selected

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 60MM HE M888 W/FUZE M935 (E67304)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
LAP Chg Prop M204 FY 98	General Dynamics (Milan AAP) Milan, TN	SS/CPAF	IOC	May-98	Dec-98	107	0.96			Mar-98
FY 00	General Dynamics (Milan AAP) Milan, TN	SS/FP	IOC	Dec-99	Jul-00	782	0.85	Y		Oct-99
Prop Charge M235 FY 01	Valentec Mt Arlington, NJ	SS/OPT	TACOM	Jan-01	Feb-02	298	5.04	Y		Oct-00
Container Assy M204 FY 98	Armtec Defense Prod Coachella, CA	C/FP	IOC	May-98	Nov-98	107	1.75			Mar-98
FY 00	TBS	C/FP	IOC	Dec-99	Jun-00	782	2.26	Y		Oct-99
*M935 Fuze FY 98	General Dynamics (Milan AAP) Milan, TN	SS/FP	IOC	May-98	Jan-99	27	3.53			Mar-98
FY 00	Stock Issue	N/A	N/A	N/A	N/A	199	N/A			
*Fz MPTS M935** FY 98	TBS	C/FP	IOC	Mar-99	Mar-99	28	10.15			Jan-99
FY 00	American Ordnance (Milan AAP) Milan, TN	SS/FP	IOC	Dec-99	Sep-00	81	10.00	Y		Oct-99
FY 00	Stock Issue	N/A	N/A	N/A	N/A	120	N/A			

REMARKS: *Government Furnished Material
**Pacing Component
TBS - To Be Selected

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition				Weapon System Type:			P-1 Line Item Nomenclature: CTG 60MM HE M888 W/FUZE M935 (E67304)				
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date	
Fuze XM783 FY 01	TBS	C/FP	TACOM	Mar-01	Apr-02	76	64.71	Y		Oct-00	
*Comp A-5 Class 1 (LB) FY 98	Stock Issue	N/A	N/A	N/A	N/A	1	N/A				
FY 00	Stock Issue	N/A	N/A	N/A	N/A	6	N/A				
*Det Stab M76 FY 98	Stock Issue	N/A	N/A	N/A	N/A	29	N/A				
*Det M98 FY 98	Stock Issue	N/A	N/A	N/A	N/A	29	N/A				
*Delay Element M53 FY 98	Stock Issue	N/A	N/A	N/A	N/A	29	N/A				
*Lead Assy 9234683 FY 98	Stock Issue	N/A	N/A	N/A	N/A	29	N/A				
*RDX Type II Class 3 (LB) FY 98	Holston Defense Corp (Holston AAP) Kingsport, TN	SS/CPAF	IOC	May-98	Nov-98	0	8.77			Mar-98	
FY 00	Stock Issue	N/A	N/A	N/A	N/A	0	N/A				

REMARKS: *Government Furnished Material
TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG MORTAR 60MM ILLUM M721/M767 (E70400)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	77	28				9	14	14	14	14		170
Gross Cost	37.2	13.1	0.0	0.0	0.0	5.8	7.5	7.7	7.6	7.8	0.0	86.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	37.2	13.1	0.0	0.0	0.0	5.8	7.5	7.7	7.6	7.8	0.0	86.6
Initial Spares												
Total Proc Cost	37.2	13.1	0.0	0.0	0.0	5.8	7.5	7.7	7.6	7.8	0.0	86.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 60MM Mortar Illuminating cartridges are designed for use with the M224 lightweight company mortar system (LWCMS) in all light infantry battalions including Airborne, Air Assault and Ranger. The M721 will provide white light illuminating capability at the same effective range as the companion High Explosive (HE) Cartridges, M720 (Range 3,200-3,800 Meters Maximum). This is triple the range of the ammunition it replaces. The XM767 provides infrared illumination which greatly enhances the effectiveness of night vision devices. The two rounds are identical except for the composition of the illuminant. The HE and Illum Cartridges are ballistically similar, thus allowing a gun to illuminate and fire on the same target without adjustments. Procurements include both white light, M721, and infrared illuminant, XM767. These items are Code A; Type Classified (TC) and have been approved for service use.

JUSTIFICATION:

The FY01 procurement meets the annual peacetime training requirements and builds a war reserve stockpile in support of fielded Mortar Weapons.

Type Classification date: white light SEP 87; infrared TC Low Rate Procurement MAY 98, TC STD MAY 99

Acquisition Manager: PM MORTARS

Exhibit P-5, Weapon Ammunition Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG MORTAR 60MM ILLUM M721/M767 (E70400)			Weapon System Type: M224 60mm Mortar			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$
AMMUNITION HARDWARE													
1. CTG, M721, CTG											874	4560	192
2. CTG, XM767, CTG											1121	4560	246
3. Prop Chg M235											188	37392	5
4. Ign Ctg M702											189	9485	20
5. Fuze, M776 MTSQ											1285	9485	135
6. Fin Assy M27											87	9485	9
SubTotal AMMO Hardware											3744		
Production Support Costs													
Production Engineering											960		
Quality Assurance											435		
Acceptance Testing											225		
Interim Transportation											89		
SubTotal Prod. Support											1709		
COST - Nonrecurring													
First Article Tests												353	
SubTotal COST-Nonrecurring											353		
TOTAL											5806	M721 XM767	609.54 663.71

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type: M224 60mm Lightweight Company Mortar			P-1 Line Item Nomenclature: CTG MORTAR 60MM ILLUM M721/M767 (E70400)						
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date	
1. CTG, M721, CTG FY 01	Pine Bluff Arsenal Pine Bluff, AR	SS/CR	TACOM	Apr-01	Feb-03	5	192	YES	N/A		
2. CTG, XM767, CTG FY 01	Pine Bluff Arsenal Pine Bluff, AR	SS/CR	TACOM	Apr-01	Mar-03	5	246	YES	N/A		
3. Prop Chg M235 FY 01	Valentec Systems Inc. Mt. Arlington, NJ	OPT	TACOM	Jan-01	Feb-02	37	5	YES	N/A		
4. Ign Ctg M702 FY 01	UNKNOWN	C/FP	TACOM	Mar-01	Feb-02	9	20	YES	N/A		
5. Fuze, M776 MTSQ FY 01	Diehl GMBH Schramberg, GER	SS/FP	TACOM	Mar-01	Apr-02	9	135	YES	N/A		
6. Fin Assy M27 FY 01	UNKNOWN	C/FP	TACOM	Mar-01	Feb-02	9	9	YES	N/A		

REMARKS: Pine Bluff Arsenal is a government owned / government operated (GOGO) facility. Work is performed through work orders, not contracts.
M776 fuze sole source to Diehl due to expertise and non-availability of a U.S. produced mortar time fuze.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG MORTAR 60MM ILLUM M721/M767 (E70400)												Date: February 1999								
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98												Fiscal Year 99				L A T E R				
							Calendar Year 98												Calendar Year 99								
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN		FEB	MAR	APR	MAY
1. CTG, M721, CTG																											
	1	FY 96	A	19	0	19																					
	1	FY 97	A	8	0	8																					8
	1	FY 01	A	5	0	5																					5
	1	FY 96	NV	9	0	9																					
	1	FY 97	NV	7	0	7																					7
	1	FY 98	NV	5	0	5																					5
	1	FY 01	NV	5	0	5																					5
2. CTG, XM767, CTG																											
	1	FY 96	A	33	0	33																			11	11	11
	1	FY 97	A	20	0	20																					20
	1	FY 01	A	5	0	5																					5
5. Fuze, M776 MTSQ																											
	2	FY 96	ALL	63	63																						
	2	FY 97	ALL	36	0	36	12	12	12																		
	2	FY 98	NV	5	0	5				5																	
	2	FY 01	ALL	14	0	14																					14

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Pine Bluff Arsenal Pine Bluff, AR	6	20	35		INITIAL	6	6	24	30	REMARKS M721 & XM767 are produced on the same assembly facility.
2	Diehl GMBH Schramberg, GER	15	30	90		REORDER	3	6	21	27	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

FY 00 / 01 BUDGET PRODUCTION SCHEDULE
 P-1 Item Nomenclature: CTG MORTAR 60MM ILLUM M721/M767 (E70400)
 Date: February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01												L A T E R
							Calendar Year 00						Calendar Year 01																		
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. CTG, M721, CTG																															
	1	FY 96	A	19	19																										
	1	FY 97	A	8	0	8		8																							
	1	FY 01	A	5	0	5													A									5			
	1	FY 96	NV	9	9																										
	1	FY 97	NV	7	0	7		7																							
	1	FY 98	NV	5	0	5			5																						
	1	FY 01	NV	5	0	5													A									5			
2. CTG, XM767, CTG																															
	1	FY 96	A	33	33																										
	1	FY 97	A	20	0	20	10	10																							
	1	FY 01	A	5	0	5													A									5			
5. Fuze, M776 MTSQ																															
	2	FY 96	ALL	63	63																										
	2	FY 97	ALL	36	36																										
	2	FY 98	NV	5	5																										
	2	FY 01	ALL	14	0	14													A									14			

MFR	PRODUCTION RATES			REACHED	MFR Number	ADMIN LEAD TIME		MFR	TOTAL	REMARKS
NAME / LOCATION	MIN.	1-8-5	MAX.	D +	Prior 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.		
1 Pine Bluff Arsenal Pine Bluff, AR	6	20	35		INITIAL	6	6	24	30	M721 & XM767 are produced on the same assembly facility.
2 Diehl GMBH Schramberg, GER	15	30	90		REORDER	3	6	21	27	
					INITIAL					
					REORDER					
					INITIAL					
					REORDER					
					INITIAL					
					REORDER					
					INITIAL					
					REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG MORTAR 60MM SMOKE WP M722 (E70500)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	164		23									187
Gross Cost	21.0	0.0	4.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	21.0	0.0	4.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
Initial Spares												
Total Proc Cost	21.0	0.0	4.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M722 60mm WP Smoke Cartridge is used on the M224 Lightweight Company Mortar System (LWCMS). It provides a smoke cloud for spotting or marking a target area. The M722 is assembled with the M745 Point Detonating Fuze which functions on impact. The cartridge has an integral burster charge, white phosphorous filler, a thin wall shell, fin assembly, a four increment M204 propelling charge, and an ignition cartridge. The operating range is from 70 to 3490 meters. This item is Code A, approved for service use. This item will be procured as actual cost.

JUSTIFICATION:

The need for a LWCMS resulted from an operational requirement for a lightweight mortar to enhance the firepower and mobility of small infantry units, and to increase the effectiveness of these units in scenarios where manportability is essential. The requirements established a need to retain most of the capabilities of the standard 81mm mortar, but with greatly reduced weight, and improved portability and ease of handling. Procurement builds a war reserve inventory in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: Sep 1991
 ACQUISITION MANAGER: IOC, Rock Island, IL

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG MORTAR 60MM SMOKE WP M722 (E70500)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE													
Load, Assemble, and Pack		1890	23	83.53									
Proj Mpts		356	24	15.12									
M27 Fin Assy		129	24	5.48									
LAP Chg Prop M204		89	93	0.96									
Container Assy		163	93	1.75									
Nitrocellulose WW GR A (LB)		3	1	4.04									
M702 Ignition Cartridge		211	24	8.97									
M9 Flake .006 F/60MM (LB)		11		57.90									
M10 Flake .008 (LB)		35	2	19.59									
Det Stab M61		54	24	2.26									
Det Stab M55		9	23	0.38									
M85 Burster		107	23	4.57									
Fuze M745		50	23	2.16									
Fz Mpts M745		928	24	39.44									
*Comp A-5 Class 1 (LB)		2		7.85									
PBXN-5 Type I Class 3 (LB)		1		83.04									
SubTotal AMMO Hardware		4038											
Production Support Costs													
Production Engineering		300			374								
Quality Assurance		10											
Acceptance Testing		46											
Interim Transportation		29											
Industrial Stock Support		142											
SubTotal Prod. Support		527			374								
COST - Nonrecurring													
Government Furnished Material		-2											
SubTotal COST-Nonrecurring		-2											
TOTAL		4563		201.65	374								

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition				Weapon System Type:			P-1 Line Item Nomenclature: CTG MORTAR 60MM SMOKE WP M722 (E70500)				
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date	
Load, Assemble, and Pack FY 98	Pine Bluff Arsenal (PBA) Pine Bluff, AR	SS/FP	IOC	Feb-98	Sep-99	22630	83.53	Y		Dec-97	
Proj Mpts FY 98	Medico Industries Wilkes-Barre, PA	C/FP	IOC	Apr-98	Feb-99	23536	15.12	Y		Feb-98	
M27 Fin Assy FY 98	Medico Industries Wilkes-Barre, PA	C/FP	IOC	Apr-98	Jul-98	23536	5.48	Y		Feb-98	
LAP Chg Prop M204 FY 98	General Dynamics (Milan AAP) Milan, TN	SS/CPAF	IOC	Mar-98	Mar-99	92783	0.96	Y		Jan-98	
Container Assy FY 98	Armtec Defense Prod Coachella, CA	SS/FP	IOC	Apr-98	Jan-99	92783	1.75	Y		Feb-98	
Nitrocellulose WW GR A (LB) FY 98	Alliant Tech (Radford AAP) Radford, VA	SS/FP	IOC	Apr-98	Jul-98	747	4.04	Y		Feb-98	
M702 Ignition Cartridge FY 98	General Dynamics (Milan AAP) Milan, TN	SS/CPAF	IOC	Mar-98	Mar-99	23536	8.97	Y		Jan-99	

REMARKS:

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG MORTAR 60MM SMOKE WP M722 (E70500)						
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date	
M9 Flake .006 F/60MM (LB) FY 98	Alliant Tech (Radford AAP) Radford, VA	SS/FP	IOC	Apr-98	Jul-98	182	57.90	Y		Feb-98	
M10 Flake .008 (LB) FY 98	Alliant Tech (Radford AAP) Radford, VA	SS/FP	IOC	Apr-98	Jul-98	1811	19.59	Y		Feb-98	
Det Stab M61 FY 98	Day & Zimmerman (Lone Star AAP) Texarkana, TX	SS/CPFF	IOC	Mar-98	Dec-98	23762	2.26	Y		Oct-98	
Det Stab M55 FY 98	Day & Zimmerman (Lone Star AAP) Texarkana, TX	SS/CPFF	IOC	Mar-98	Dec-98	23309	0.38	Y		Jan-98	
M85 Burster FY 98	General Dynamics (Milan AAP) Milan, TN	SS/CPAF	IOC	Mar-98	Jan-99	23309	4.57	Y		Jan-98	
Fuze M745 FY 98	General Dynamics (Milan AAP) Milan, TN	SS/CPAF	IOC	Mar-98	Jul-99	23309	2.16	Y		Jan-98	
Fz Mpts M745 FY 98	Accudyne Corp Janesville, WI	C/FP	IOC	Apr-98	Apr-99	23536	39.44	Y		Feb-98	

REMARKS:

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG MORTAR 60MM SMOKE WP M722 (E70500)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
*Comp A-5 Class 1 (LB) FY 98	Stock Issue	N/A	N/A	N/A	N/A	193	N/A	Y		
PBXN-5 Type I Class 3 (LB) FY 98	Holston Defense Corp (Holston AAP) Kingsport, TN	SS/CPFF	IOC	Mar-98	Sep-98	7	83.04	Y		Jan-98

REMARKS: *Government Furnished Material

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 01												Fiscal Year 02												LATER
							Calendar Year 01												Calendar Year 02												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Load, Assemble, and Pack																															
	1	98P	A	56.0	56.0																										
	2	98	A	23.0	23.0																										
	1	98P	MC	76.0	76.0																										
	1	98P	NS	13.0	13.0																										
	2	98P	NS	8.0	8.0																										
	2	99	NS	2.0	2.0																										
	2	00	NS	2.0		2.0										2.0															
	2	01	NS	2.0		2.0																	2.0								
		98P	ALL	153.0	153.0																										
		98	ALL	23.0	23.0																										
		99	ALL	2.0	2.0																										
		00	ALL	2.0		2.0										2.0															
		01	ALL	2.0		2.0																	2.0								

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Milan AAP, TN	20.00	40.00	100.00		INITIAL	6	3	21	24	PACER UALT ALT PDN TOTAL Initial 6 6 12 18 Reorder 6 6 12 18
						REORDER	6	3	21	24	
2	Pine Bluff Arsenal, AR	10.00	50.00	150.00		INITIAL					
						REORDER					
3	Alliant Tech, MN	5.00	5.00	30.00		INITIAL					
4	To Be Selected	5.00	5.00	30.00		REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG 81MM INFRARED (IR) ILLUM XM816 (E90000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty				8								8
Gross Cost	0.0	0.0	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The XM816 81mm Infrared Illumination Catridge is designed for use with the M252 81mm mortar system, currently fielded to all Army light infantry battalions and to the United States Marine Corps. The round is used to illuminate target areas during night operations. It consists of a two-piece body filled with illuminating flare, fuze, and tail assembly. It bursts over a target, producing infrared illumination which greatly enhances the performance of night vision devices. This item is code A: It has been type classified and approved for service use.

JUSTIFICATION:

Procurement builds a war reserve in support of fielded mortar weapons.

Type Classification date: TC (Limited Procurement) JUL 94; TC (STD) NOV 00

Acquisition Manager: PM MORTARS

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 81MM INFRARED (IR) ILLUM XM816 (E90000)			Weapon System Type: M252 81mm Mortar			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$
AMMUNITION HARDWARE													
1. CTG, XM816, LAP					2229	8000	279						
2. Shell Bodies					208	8320	25						
3. Parachute Assembly					255	8190	31						
4. Prop Chg M219					158	32800	5						
5. Ign Ctg M752					149	8190	18						
6. Fuze M772					1198	8190	146						
7. Container PA114					82	8190	10						
8. Container PA157					97	2773	35						
SubTotal AMMO Hardware					4376								
Production Support Costs													
Production Engineering					1409								
Quality Assurance					387								
Acceptance Testing					373								
Interim Transportation					132								
SubTotal Prod. Support					2301								
COST - Nonrecurring													
First Article Testing/IPT					2663								
SubTotal COST-Nonrecurring					2663								
TOTAL					9340		\$ 1,167.50						

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type: M252 81mm Mortar System			P-1 Line Item Nomenclature: CTG 81MM INFRARED (IR) ILLUM XM816 (E90000)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. CTG, XM816, LAP FY 99	Pine Bluff Arsenal, Pine Bluff AR	SS/CR	TACOM	Apr-99	Feb-01	8	279			
2. Shell Bodies FY 99	UNKNOWN	C/FP	TACOM	Jun-99	May-00	8	25			
3. Parachute Assembly FY 99	Mills Manufacturing Asheville NC	Opt	TACOM	Mar-99	Apr-00	8	31			
4. Prop Chg M219 FY 99	ValentecSystems Inc. Mt Arlington NJ	SS/FP	TACOM	Jun-99	Jul-00	33	5			
5. Ign Ctg M752 FY 99	UNKNOWN	C/FP	TACOM	Jun-99	May-00	8	18			
6. Fuze M772 FY 99	Diehl GMBH Schramberg Germany	SS/FP	TACOM	Jun-99	Aug-00	8	146			
7. Container PA114 FY 99	UNKNOWN	C/FP	TACOM	Jun-99	May-00	8	10			
8. Container PA157 FY 99	UNKNOWN	C/FP	TACOM	Jun-99	May-00	3	35			

REMARKS: Pine Bluff Arsenal is a Government owned/Government Operated (GOGO) facility. Work is performed through project orders, not contracts.
Fuze is sole source to Diehl due to expertise and non-availability of a U.S. produced mortar time fuze
Prop Charge will be procured as a modification to the current 120mm prop charge contract

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG MORTAR 120MM FULL RANGE PRACTICE M931 (E25507)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	37	127	78	97						31		370
Gross Cost	17.8	50.9	31.2	39.6	0.0	0.0	0.0	0.0	0.0	17.1	0.0	156.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	17.8	50.9	31.2	39.6	0.0	0.0	0.0	0.0	0.0	17.1	0.0	156.6
Initial Spares												
Total Proc Cost	17.8	50.9	31.2	39.6	0.0	0.0	0.0	0.0	0.0	17.1	0.0	156.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 The M931 120mm Full Range Practice Cartridge is designed for use with the M120/M121 120 m m Battalion Mortar System, currently fielded to all Armor and Mechanized Infantry units in the Army. The M931 is a low-cost, full range, practice round that will replace a percentage of the standard High Explosive (HE) rounds used in 120mm mortar training. It consists of a M781 point detonating practice fuze which simulates the multi-option and provides flash, bang and smoke; a steel body which approximates the shape of the 120mm HE service round; and an ignition cartridge and propelling charge which provide the propulsion requirement. This item is code A, approved for service use. The round is produced from a performance specification.

JUSTIFICATION:
 This is a training-unique item; not used in combat. Use of the M931 will reduce training costs and environmental impacts. Procurement supports annual peacetime training requirements and builds toward authorized depot level for training unique ammunition.

Type Classification date: TC (STD) AUG 96

Acquisition Manager: PM MORTARS

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG MORTAR 120MM FULL RANGE PRACTICE M93 (E25507)			Weapon System Type: M120/M121 120mm Battalion Mortar System			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
1. LAP M931			8856	77	115	11225	97	116						
2. Shell Body			8609	80	108	11381	100	113						
3. Fin Assembly M34			2961	80	37	3367	100	34						
4. Prop Chg M233			4543	315	14	5515	396	14						
5. Ignition Ctq M1020			1984	80	25	2551	100	25						
6. Fuze Trng M781			1306	80	16	1657	100	17						
SubTotal AMMO Hardware			28258			35696								
Production Support Costs														
Production Engineering			887			1791								
Quality Assurance			148			299								
Acceptance Testing			331			420								
Interim Transportation			706			896								
PMO						489								
SubTotal Prod. Support			2072			3895								
COST - Nonrecurring														
Production Verification Test			877											
SubTotal COST-Nonrecurring			877											
TOTAL			31207		406.73	39591		410.27						

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type: M120/M121 120mm Battalion Mortar System			P-1 Line Item Nomenclature: CTG MORTAR 120MM FULL RANGE PRACTICE M93 (E25507)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. LAP M931										
FY 98	SNC Technologies, LeGardeur, PQ Canada	C/FP	TACOM	Sep-98	Aug-00	77	115	Yes		
FY 99	SNC Technologies, LeGardeur, PQ Canada	OPT	TACOM	Mar-99	Feb-01	97	116	Yes		
2. Shell Body										
FY 98	Chamberlain Mfg. Scranton, PA	OPT	TACOM	Jan-98	Jan-99	80	108	Yes		
FY 99	Chamberlain Mfg. Scranton, PA	OPT	TACOM	Jan-99	Jan-00	100	113	Yes		
3. Fin Assembly M34										
FY 98	Valentec Systems Inc. Mt. Arlington, NJ	OPT	TACOM	Jan-98	Dec-98	80	37	Yes		
FY 99	Valentec Systems Inc. Mt. Arlington, NJ	OPT	TACOM	Mar-99	Feb-00	100	34	Yes		
4. Prop Chg M233										
FY 98	Valentec Systems Inc. Mt. Arlington, NJ	OPT	TACOM	May-98	May-99	315	14	Yes		
FY 99	UNKNOWN	C/FP	TACOM	Jan-99	Sep-99	396	14	Yes		
5. Ignition Ctg M1020										
FY 98	Pocal Industries Moscow, PA	C/FP	TACOM	Jun-98	Aug-99	80	25	Yes		
FY 99	Pocal Industries Moscow, PA	OPT	TACOM	Mar-99	Feb-00	100	25	Yes		
6. Fuze Trng M781										
FY 98	Pocal Industries Inc, Scranton, PA	C/FP	TACOM	Sep-98	Apr-99	80	16	Yes		
FY 99	Pocal Industries Inc, Scranton, PA	OPT	TACOM	Mar-99	Oct-99	100	17	Yes		

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG MORTAR 120MM HE M934A1 W/MO FUZE (E25501)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	199		43	48	60	55	29	28	28	17		507
Gross Cost	78.0	0.0	37.4	37.0	46.3	43.8	24.8	24.6	25.4	16.7	0.0	334.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	78.0	0.0	37.4	37.0	46.3	43.8	24.8	24.6	25.4	16.7	0.0	334.0
Initial Spares												
Total Proc Cost	78.0	0.0	37.4	37.0	46.3	43.8	24.8	24.6	25.4	16.7	0.0	334.0
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M934A1 High Explosive Cartridge with Multi Option Fuze is designed for use with the M120/M121 120 m m Battalion Mortar System, currently fielded to all Armor and Mechanized Infantry units in the Army. The round is used against personnel and materiel providing both fragmentation and blast effect. It consists of a multi-option fuze, tail assembly, and projectile body with composition B explosive fill. The M934A1 uses the more reliable and countermeasure resistant M734A1 multi-option fuze. The proximity setting will burst the round at a height over the target which is optimized for lethality. The round expands the lethal radius to 1.5 times that of the 4.2-in high explosive round it replaces. This item is code A: it has been approved for service use.

JUSTIFICATION:

The FY 00/FY 01 budget supports procurement of the M934A1 supports building a war reserve inventory, which will replace the M934 as the preferred 120mm ammunition.

Type Classification Date: Non-Developmental Item (NDI) - MAR 90, Limited Procurement-Urgent (LPU);
 Enhanced Ammunition - M934 standard (STD) MAY92; M934A1 STD JUN 96.

Acquisition Manager: PM MORTARS

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG MORTAR 120MM HE M934A1 W/MO FUZE (E25501)			Weapon System Type: M120/M121 120mm Battalion Mortar System			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE													
1. LAP M934A1		6333	43	146	7132	48	148	8470	60	140	7945	55	143
2. Shell Body		5486	45	121	6622	50	132	8799	63	140	8208	58	142
3. Fin Assembly M31		1678	45	37	1735	50	35	1997	63	32	2023	58	35
4. Ignition Ctg M1020		1126	45	25	1315	50	26	1709	63	27	1620	58	28
5. Prop Chg M234		2575	178	14	2841	198	14	3621	248	15	3500	228	15
6. Fuze M734A1		14106	45	312	12644	50	252	15907	63	253	14689	58	255
7. PA153 Container		442	45	10	494	50	10						
8. PA154 Container		914	23	40	1024	25	41						
9. Monopack Container								2078	63	33	1939	58	34
SubTotal AMMO Hardware		32660			33807			42581			39923		
Production Support Costs													
Production Engineering		1475			1490			1524			1556		
Quality Assurance		304			307			312			318		
Acceptance Testing		800			807			822			836		
Interim Transportation		541			572			644			629		
Program Management Office								396			548		
SubTotal Prod. Support		3120			3176			3698			3887		
COST - Nonrecurring													
First Article Testing		1658											
SubTotal COST-Nonrecurring		1658											
TOTAL		37438		\$860.65	36983		\$766.29	46279		\$764.96	43810		\$789.39

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type: M120/M121 120mm Battalion Mortar System			P-1 Line Item Nomenclature: CTG MORTAR 120MM HE M934A1 W/MO FUZE (E25501)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. LAP M934A1										
FY 98	SNC Technologies, LeGardeur, PQ, Canada	C/FP	TACOM	Sep-98	Sep-00	43	146	Yes		
FY 99	SNC Technologies, LeGardeur, PQ, Canada	OPT	TACOM	Mar-99	Jan-01	48	148	Yes		
FY 00	SNC Technologies, LeGardeur, PQ, Canada	OPT	TACOM	Feb-00	Oct-01	60	140	Yes		
FY 01	SNC Technologies, LeGardeur, PQ, Canada	OPT	TACOM	Feb-01	Oct-02	55	143	Yes		
2. Shell Body										
FY 98	Chamberlain Mfg. Scranton, PA	OPT	TACOM	Jan-98	Jan-99	45	121	Yes		
FY 99	Chamberlain Mfg. Scranton, PA	OPT	TACOM	Mar-99	Mar-00	50	132	Yes		
FY 00	Chamberlain Mfg. Scranton, PA	OPT	TACOM	Jan-00	Jan-01	63	140	Yes		
FY 01	UNKNOWN	C/FP	TACOM	Mar-01	Jun-02	58	142	Yes		
3. Fin Assembly M31										
FY 98	Valentec Systems Inc. Mt. Arlington, NJ	OPT	TACOM	Jan-98	Dec-98	45	37	Yes		
FY 99	Valentec Systems Inc. Mt. Arlington, NJ	OPT	TACOM	Mar-99	Feb-00	50	35	Yes		
FY 00	Valentec Systems Inc. Mt. Arlington, NJ	OPT	TACOM	Jan-00	Dec-00	63	32	Yes		
FY 01	UNKNOWN	C/FP	TACOM	Mar-01	May-01	58	35	Yes		
4. Ignition Ctg M1020										
FY 98	Pocal Industries Moscow, PA	C/FP	TACOM	Jun-98	Aug-99	45	25	Yes		
FY 99	Pocal Industries Moscow, PA	OPT	TACOM	Mar-99	Feb-00	50	26	Yes		
FY 00	Pocal Industries Moscow, PA	OPT	TACOM	Jan-00	Dec-00	63	27	Yes		
FY 01	Pocal Industries Moscow, PA	OPT	TACOM	Jan-01	Dec-01	58	28	Yes		

REMARKS: 120mm components (M31 Fin, M1020 Ignition Cartridge, M734A1 Fuze, PA153 Container and PA154 Container) are procured on same contracts as other 120mm mortar rounds. The M934A1 LAP effort will be combined with the M931 LAP on one contract. Increment container will be supplied to Prop charge contractor as GFM in FY99 & FY00. M47 Propellant will be supplied to Prop charge contractor as GFM in FY99, FY00 & FY01. Monopack Container will replace the PA153 and PA154 containers in FY2000. The FY00 & FY01 buys are options to the development contract.

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type: M120/M121 120mm Battalion Mortar System			P-1 Line Item Nomenclature: CTG MORTAR 120MM HE M934A1 W/MO FUZE (E25501)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
5. Prop Chg M234										
FY 98	Valentec Systems Inc. Mt. Arlington, NJ	OPT	TACOM	May-98	May-99	178	14	Yes		
FY 99	UNKNOWN	C/FP	TACOM	Jun-99	Sep-00	198	14	Yes		
FY 00	UNKNOWN	OPT	TACOM	Jan-00	Mar-01	248	15	Yes		
FY 01	UNKNOWN	OPT	TACOM	Jan-01	Mar-02	228	15	Yes		
6. Fuze M734A1										
FY 98	KDI, Cincinatti OH	C/FP	TACOM	Sep-98	Jan-00	45	312	Yes		
FY 99	KDI, Cincinatti OH	OPT	TACOM	Mar-99	May-00	50	252	Yes		
FY 00	KDI, Cincinatti OH	OPT	TACOM	Jan-00	Dec-00	63	253	Yes		
FY 01	KDI, Cincinatti OH	OPT	TACOM	Jan-01	Dec-01	58	255	Yes		
7. PA153 Container										
FY 98	Omega Container Inc. Arcadia, LA	OPT	TACOM	Jan-98	Jul-98	45	10	Yes		
FY 99	UNKNOWN	C/FP	TACOM	Jun-99	Jan-00	50	10	Yes		
8. PA154 Container										
FY 98	Brockway Std Atlanta, GA	OPT	TACOM	Jan-98	Jun-98	23	40	Yes		
FY 99	UNKNOWN	C/FP	TACOM	Mar-99	Sep-99	25	41	Yes		
9. Monopack Container										
FY 00	Plastics Research Corp. Santa Fe Springs, CA	OPT	TACOM	Jan-00	Apr-01	63	33	No		
FY 01	Plastics Research Corp. Santa Fe Springs, CA	OPT	TACOM	Jan-01	Jan-02	58	34	No		

REMARKS: 120mm components (M31 Fin, M1020 Ignition Cartridge, M734A1 Fuze, PA153 Container and PA154 Container) are procured on same contracts as other 120mm mortar rounds. The M934A1 LAP effort will be combined with the M931 LAP on one contract. Increment container will be supplied to Prop charge contractor as GFM in FY99 & FY00. M47 Propellant will be supplied to Prop charge contractor as GFM in FY99, FY00 & FY01. Monopack Container will replace the PA153 and PA154 containers in FY2000. The FY00 & FY01 buys are options to the development contract.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG MORTAR 120MM HE M934A1 W/MO FUZE (E25501)													Date: February 1999											
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98												Fiscal Year 99												L A T E R
							Calendar Year 98						Calendar Year 99						Calendar Year 99												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. LAP M934A1																															
	1	FY 98	A	43	0	43																					43				
	1	FY 99	A	48	0	48																					48				
	1	FY 00	A	60	0	60																					60				
	1	FY 01	A	55	0	55																					55				
6. Fuze M734A1																															
	2	FY 98	A	45	0	45																					45				
	2	FY 99	A	50	0	50																					50				
	2	FY 00	A	63	0	63																					63				
	2	FY 01	A	58	0	58																					58				
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MFR	PRODUCTION RATES				REACHED	MFR Number	ADMIN LEAD TIME				MFR	TOTAL	REMARKS																		
	NAME / LOCATION	MIN.	1-8-5	MAX.	D +		Prior 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.	The M734A1 Fuze is used on 3 different U.S. Mortar rounds. Production is near continuous.																			
1	UNKNOWN	3	12	30		INITIAL	6	6	24	30																					
2	UNKNOWN	3	15	40		REORDER	3	5	20	25																					
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									
						INITIAL																									

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 120MM WP SMOKE M929 (E91300)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty					56	26	12	14	18	18		144
Gross Cost	0.0	0.0	0.0	0.0	51.8	25.1	14.0	14.8	18.2	18.8	0.0	142.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	51.8	25.1	14.0	14.8	18.2	18.8	0.0	142.7
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	51.8	25.1	14.0	14.8	18.2	18.8	0.0	142.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M929 White Phosphorus Smoke cartridge is designed for use with the M120/M121 120mm Battalion Mortar System, currently fielded to all Armor and Mechanized Infantry units in the Army. The round is used to provide smoke, with some incendiary effect, for various screening uses. It consists of a body with smoke composition filler, fuze, and tail assembly. It bursts over or on a target, producing dense smoke which is 100 percent greater than the 4.2-in smoke round it replaces. The round is range matched to the 120mm high explosive (HE) and illuminating cartridges. This item is code A; it has been type classified and approved for service use.

JUSTIFICATION:

The FY2000 surge builds toward this increased requirement. Outyear procurements build war reserve inventory and support annual peacetime training requirements in accordance with the Army's procurement goals.

Type Classification Date: NDI - MAR 90, limited procurement - urgent(LPU);
 Enhanced Ammunition - XM929, limited rate production (LRP) MAY 92; M929, standard (STD) JUN 96.

Acquisition Manager: PM MORTARS

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 120MM WP SMOKE M929 (E91300)			Weapon System Type: M120/M121 120mm Battalion Mortar System			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE													
1. LAP, M929								13024	56	235	6315	26	248
2. Shell Body								11897	58	206	5559	27	210
3. Ign Ctg M1020								1568	58	27	744	27	28
4. Fin Assembly M31								1832	58	32	930	27	35
5. Prop Chg M234								3322	228	15	1608	105	15
6. Fuze M734A1								14593	58	253	6750	27	255
7. Monopack Container								1907	58	33	891	27	34
SubTotal AMMO Hardware								48143			22796		
Production Support Costs													
Production Engineering								1287			1314		
Quality Assurance								310			315		
Acceptance Testing								610			290		
Interim Transportation								450			213		
PMO								239			97		
SubTotal Prod. Support								2896			2229		
COST - Nonrecurring													
1. First Article Test								780			100		
SubTotal COST-Nonrecurring								780			100		
TOTAL								51819		\$933.66	25125		\$985.27

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 120MM WP SMOKE M929 (E91300)						
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date	
1. LAP, M929											
FY 00	Pine Bluff Arsenal Pine Bluff, AR	SS/CR	TACOM	Apr-00	Mar-02	56	235	yes			
FY 01	Pine Bluff Arsenal Pine Bluff, AR	SS/CR	TACOM	Apr-01	Nov-02	26	248	yes			
2. Shell Body											
FY 00	Chamberlain Mfg. Scranton, PA	OPT	TACOM	Jan-00	Jan-01	58	206				
FY 01	UNKNOWN	C/FP	TACOM	Mar-01	Jun-02	27	210				
3. Ign Ctg M1020											
FY 00	Pocal Industries Moscow, PA	OPT	TACOM	Jan-00	Dec-00	58	27				
FY 01	Pocal Industries Moscow, PA	OPT	TACOM	Jan-01	Dec-01	27	28				
4. Fin Assembly M31											
FY 00	Valentec Systems Inc. Mt. Arlington, NJ	OPT	TACOM	Jan-00	Dec-00	58	32				
FY 01	UNKNOWN	C/FP	TACOM	Mar-01	May-02	27	35				
5. Prop Chg M234											
FY 00	UNKNOWN	OPT	TACOM	Jan-00	Mar-01	228	15				
FY 01	UNKNOWN	OPT	TACOM	Jan-01	Mar-01	105	15				
6. Fuze M734A1											
FY 00	KDI Cincinatti OH	OPT	TACOM	Jan-00	Jan-01	58	253				
FY 01	KDI Cincinatti OH	OPT	TACOM	Jan-01	Jan-02	27	255				
7. Monopack Container											
FY 00	Plastics Research Corp. Santa Fe Springs, CA	OPT	TACOM	Jan-00	Apr-01	58	33	no	6/99		
FY 01	Plastics Research Corp. Santa Fe Springs, CA	OPT	TACOM	Jan-01	Jan-02	27	34	no	6/99		

REMARKS: 120mm mortar components (Shell bodies, M1020 ignition cartridge, M31 Fin, M234 Prop charge, and Monopack Container) are procured on same contracts as for other 120mm mortar rounds. Increment containers are supplied to Prop charge contractor as GFM in FY00. M47 propellant is supplied to Prop charge contractor as GFM in FY00 & FY01.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG 120MM WP SMOKE M929 (E91300)													Date: February 1999										
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98												Fiscal Year 99					L A T E R						
							Calendar Year 98												Calendar Year 99											
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB		MAR	APR	MAY	JUN	JUL	AUG
1. LAP, M929																														
	1	FY 96	A	57	0	57																								
	1	FY 97	A	27	0	27																								
	1	FY 00	A	56	0	56																								
	1	FY 01	A	26	0	26																								
3. Fuze M734A1																														
	2	FY 96	A	59	0	59																								
	2	FY 97	A	29	0	29																								
	2	FY 00	A	58	0	58																								
	2	FY 01	A	27	0	27																								
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MFR	PRODUCTION RATES				REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS																			
	NAME / LOCATION	MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.																						
1	Pine Bluff Arsenal Pine Bluff, AR	5	10	30		INITIAL	6	7	23	30	The M734A1 Fuze is used on 3 different U.S. Mortar rounds. Production is near continuous. FY97 and prior program are being procured under SSN E25504																			
						REORDER	3	7	20	27																				
2	KDI Cincinatti OH	10	15	40		INITIAL																								
						REORDER																								
						INITIAL																								
						REORDER																								
						INITIAL																								
						REORDER																								
						INITIAL																								
						REORDER																								

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG 120MM WP SMOKE M929 (E91300)													Date: February 1999													
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01												L A T E R		
							Calendar Year 00												Calendar Year 01														
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1. LAP, M929																																	
	1	FY 96	A	57	57																												
	1	FY 97	A	27	9	18	9	9																									
	1	FY 00	A	56	0	56																											56
	1	FY 01	A	26	0	26																											26
3. Fuze M734A1																																	
	2	FY 96	A	59	59																												
	2	FY 97	A	29	29																												
	2	FY 00	A	58	0	58																											
	2	FY 01	A	27	0	27																											

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Pine Bluff Arsenal Pine Bluff, AR	5	10	30		INITIAL	6	7	23	30	The M734A1 Fuze is used on 3 different U.S. Mortar rounds. Production is near continuous. FY97 and prior program are being procured under SSN E25504
						REORDER	3	7	20	27	
2	KDI Cincinatti OH	10	15	40		INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 120MM WP SMOKE M929 (E91300)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02												Fiscal Year 03												L A T E R
							Calendar Year 02						Calendar Year 03						Calendar Year 03												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. LAP, M929																															
	1	FY 96	A	57	57																										
	1	FY 97	A	27	27																										
	1	FY 00	A	56	0	56						6	7	7	7	7	7	7	7	1											
	1	FY 01	A	26	0	26														6	7	7	6								
3. FUZE M734A1																															
	2	FY 96	A	59	59																										
	2	FY 97	A	29	29																										
	2	FY 00	A	58	58																										
	2	FY 01	A	27	0	27				9	9	9																			
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MFR	PRODUCTION RATES				REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS																				
	NAME / LOCATION	MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.																							
1	Pine Bluff Arsenal Pine Bluff, AR	5	10	30		INITIAL	6	7	23	30	The M734A1 Fuze is used on 3 different U.S. Mortar rounds. Production is near continuous. FY97 and prior program are being procured under SSN E25504																				
2	KDI Cincinatti OH	10	15	40		REORDER	3	7	20	27																					
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 120MM APFSDS-T M829A2/M829E3 (E78001)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	157	28	20	3			4	10	10	10		242
Gross Cost	1250.1	97.7	75.2	14.7	0.0	0.0	41.4	71.8	71.7	71.6	0.0	1694.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1250.0	97.7	75.2	14.7	0.0	0.0	41.4	71.8	71.7	71.6	0.0	1694.1
Initial Spares												
Total Proc Cost	1250.0	97.7	75.2	14.7	0.0	0.0	41.4	71.8	71.7	71.6	0.0	1694.1
Flyaway U/C												
Wpn Sys Proc U/C	3782	3489	3667	5876			10350	7180	7170	7160		

DESCRIPTION:
 The 120MM M829A2 Armor Piercing, Fin-Stabilized, Discarding Sabot with Tracer (APFSDS-T), cartridge is designed specifically as a anti-armor kinetic energy round. This round is fired from the M256 120MM cannon mounted on the M1A1 Abrams tank. The propellant system consists of a combustibile cartridge case mounted on a steel stub base and filled with kerfed propellant. The propellant is ignited by a M129 electric primer. The projectile incorporated a segmented graphite reinforced plastic sabot held in place by a plastic band which separates in flight to allow the discarding of the sabot from the super depleted uranium (SDU) penetrator. A synthetic rubber seal is molded to the base of the sabot assembly to prevent the forward escape of hot propellant gases. The M829A2, although using many similar components of the M829A1 APFSDS-T, has been technologically improved to provide significantly greater armor penetration capability than the older round.

JUSTIFICATION:
 Procurement builds war reserve inventory in accordance with the Army's procurement goal. The acquisition strategy for FY95-FY98 was sole source multi-year production contract. Production of the M829A2 will provide a "leap-ahead" in tank ammunition technology to enable the U.S. tank fleet to defeat current and postulated threat armor well into the next century. Introduction of this technological advance complies with the objective of Armament Enhancement Initiatives fielding munition deterrent prior to the introduction of a new opposing armored threat. This round encompasses evolutionary advances in technology and represents the most effective tank round in production. Prior year quantities include program buys for the M829A1 and M829A2 rounds.

Acquisition Manager: Project Manager, Tank Main Armament (PM-TMAS)

TYPE CLASSIFICATION DATE: September 1992 (M829A2)

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 120MM APFSDS-T M829A2/M829E3 (E78001)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$Million	Each	\$	\$Million	Each	\$	\$Million	Each	\$	\$Million	Each	\$
AMMUNITION HARDWARE														
Complete Round			68358	20497	3335	11250	2500	4500						
SubTotal AMMO Hardware			68358			11250								
Production Support Costs														
Production Engineering			3165			2075								
Quality Assurance			935			560								
Acceptance Testing			1740			468								
SubTotal Prod. Support			5840			3103								
Cost - Nonrecurring														
ECP's			970			338								
SubTotal Cost - Nonrecurring			970			338								
TOTAL			75168		3667	14691		5876						

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 120MM APFSDS-T M829A2/M829E3 (E78001)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. COMPLETE ROUND										
FY98	Primex Technologies St. Pteresburg, FL	SM-4/FP	ARDEC	Jan-98	Feb-99	13337	3343	yes	no	
FY98	Primex Technologies St. Petersburg, FL	SS/FP/Opt	ARDEC	Sep-98	Nov-99	6400	3180	yes	no	
FY98	Primex Technologies St. Petersburg, FL	SS/FP	ARDEC	Feb-99	Feb-00	760	4500	yes	no	
FY99	Primex Technologies St. Petersburg, FL	SS/FP	ARDEC	Feb-99	Mar-00	2500	4500	yes	no	

REMARKS: Primex Technologies spun-off from Olin Ordnance Corp in Jan 97.

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 120MM APFSDS-T M829A2/M829E3 (E78001)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98												Fiscal Year 99												L A T E R								
							Calendar Year 98												Calendar Year 99																				
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP									
Complete Round	1	FY97P	A	106	73	33	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1															2	9
	1	FY98	A	20	0	20																																	
	1	FY99	A	3	0	3																																	
FMS Buy back	1	FMS	A	4	0	4																															2	2	

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
		INITIAL	REORDER	INITIAL			REORDER				
1	PRIMEX TECHNOLOGIES ST. PETERSBURG, FL	2	3	6			3	4	14	18	FY97 and prior deliveries are actuals.
							3	5	13	18	

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:
CTG 120MM APFSDS-T M829A2/M829E3 (E78001)

Date:
February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01												LATER					
							Calendar Year 00												Calendar Year 01																	
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP						
Complete Round	1	FY97P	A	106	106																															
	1	FY98	A	20	11	9	2	1	2	2	2																									
	1	FY99	A	3	0	3					3																									
FMS Buy Back	1	FMS	A	4	4																															

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	PRIMEX TECHNOLOGIES ST. PETERSBURG, FL	2	3	6		INITIAL	3	4	14	18	
						REORDER	3	5	13	18	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 120MM HEAT-MP-T M830A1 (E78007)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	62	9	3	2								76
Gross Cost	483.9	30.9	7.7	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	532.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	483.9	30.9	7.7	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	532.5
Initial Spares												
Total Proc Cost	483.9	30.9	7.7	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	532.5
Flyaway U/C												
Wpn Sys Proc U/C												3532

DESCRIPTION:
 The 120MM M830A1 Multi-Purpose (MP) cartridge is effective against light armor, air defense and materiel. This round is fired from the M256 120MM cannon mounted on the M1A1 Abrams tank. Appropriate targets include lightly armored vehicles with reactive armor, helicopters, buildings and bunkers, the side and rear aspects of tanks, and dismounted anti-tank and automatic weapons teams. The fixed round utilizes a combustible cartridge case affixed to a steel stub and loaded with granular propellant. The fin-stabilized, high chrome alloy steel projectile body is press-loaded with explosive, a precision copper liner and booster. The base element is armed during launch and initiated by an impact switch or proximity sensor, depending upon the operational mode selected by the tank crew. Arming is accomplished through the ballistic environment of firing, set back and deceleration. This item is code A, approved for service use.

JUSTIFICATION:
 Procurement builds war reserve inventory in accordance with the Army's procurement goal. The production and fielding of the M830A1 provides increased accuracy when compared to the currently fielded M830 High Explosive Anti-Tank Multi-Purpose with Tracer (HEAT-MP-T) cartridge, due to reduced time of flight. For the first time ever, the M830A1 provides the individual tank crew with the self-defense capability to engage and defeat attacking helicopter platforms. The M830A1 replaces the currently fielded M830 round to provide significantly enhanced capability to the 120MM gun tank fleet.

Acquisition Manager: Project Manager, Tank Main Armaments (PM-TMAS).

TYPE CLASSIFICATION DATE: September 1992

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG 120MM HEAT-MP-T M830A1 (E78007)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$
AMMUNITION HARDWARE			6596	2600	2537	7525	1750	4300						
Complete Round														
SubTotal AMMO Hardware			6596			7525								
Production Support Costs														
Production Engineering			457			1772								
Quality Assurance			325			340								
Acceptance Testing			320			335								
SubTotal Prod. Support			1102			2447								
TOTAL			7698		2961	9972		5698						

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 120MM HEAT-MP-T M830A1 (E78007)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. COMPLETE ROUND FY98	Alliant Techsystems Minneapolis, MN	SS/FP/Opt	ARDEC	Jan-98	Jun-99	2600	2537	yes	no	
FY99	Alliant Techsystems Minneapolis, MN	SS/FP	ARDEC	Apr-99	Aug-00	1750	4300	yes	no	

REMARKS: A quantity of 14,100 of this rounds inventory were converted to XM908 rounds.

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 120MM HEAT-MP-T M830A1 (E78007)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01												LATER					
							Calendar Year 00												Calendar Year 01																	
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP						
Complete Round	1	FY97P	A	74	74																															
	1	FY98	A	3	3																															
	1	FY99	A	2	0	2																														
	1	FY97	M.C.	2	2																															

MFR	NAME / LOCATION	MIN.	1-8-5	MAX.	REACHED D+	MFR Number	ADMIN LEAD TIME	MFR	TOTAL	REMARKS	
							Prior 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.	
1	ALLIANT TECHSYSTEMS	2	3	5		INITIAL	3	12	11	23	FY98 production are actual and the Leadtimes do not apply.
						REORDER	3	7	16	23	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG TANK 120MM TP-T M831/M831A1 (E73300)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	632	93	91	105	57	87	86	85	85	85		1406
Gross Cost	558.3	54.5	59.7	60.2	32.6	49.5	48.0	47.6	48.5	49.4	0.0	1008.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	558.3	54.5	59.7	60.2	32.6	49.5	48.0	47.6	48.5	49.4	0.0	1008.3
Initial Spares												
Total Proc Cost	558.3	54.5	59.7	60.2	32.6	49.5	48.0	47.6	48.5	49.4	0.0	1008.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 120mm M831A1 Target Practice-Tracer (TP-T) is a target practice round that simulates the ballistics of the chemical energy service round (M830). This round is fired from the M256 120mm smooth bore cannon on the M1A1/M1A2 Abrams tank. The projectile is inert and is composed of a steel spike aluminum body, ring, stabilizer, nylon obturator, and tracer. The stabilizer spins the round in flight. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. Tank crews conduct live fire training with this round to meet and maintain gunnery proficiency. FY00/FY01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals. The acquisition strategy for FY99-FY03 will be a five year multi-year production contract.

TYPE CLASSIFICATION DATE:
1983

ACQUISITION MANAGER: IOC, Rock, Island, Ill

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG TANK 120MM TP-T M831/M831A1 (E73300)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$
AMMUNITION HARDWARE														
Complete Round			51505	91164	564.97	57540	105000	548.00	31236	57000	548.00	47676	87000	548.00
SubTotal AMMO Hardware			51505			57540			31236			47676		
Production Support Costs														
Production Engineering			5264			2317			1254			1637		
Quality Assurance			129			22			13			17		
Acceptance Testing			592			337			120			211		
Interim Transportation			371											
Industrial Stock Support			1823											
SubTotal Prod. Support			8179			2676			1387			1865		
TOTAL			59684		654.69	60216		573.49	32623		572.33	49541		569.44

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG TANK 120MM TP-T M831/M831A1 (E73300)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Complete Round FY 98	Alliant Tech Sys, Inc New Brighton, MN	CM-4/FP	IOC	Dec-97	Dec-98	47699	#500.66			Oct 97
FY 98	Primex Tech, Inc. St. Petersburg, FL	CM-4/FP	IOC	Dec-97	Feb-99	43465	#592.19			Oct 97
FY 99	TBS	CM-1/FP	IOC	Mar-99	Oct-99	105000	548.00	Yes		Jan 99
FY 00	TBS	CM-2/FP	IOC	Jan-00	Oct-00	57000	548.00	Yes		Oct 99
FY 01	TBS	CM-3/FP	IOC	Jan-01	Oct-01	87000	548.00	Yes		Oct 00

REMARKS:

Actual Contract Price for multiple producers
 Multi-Year I Procurement FY 95 - FY 98
 Multi-Year II Procurement scheduled for award March 1999 (FY99-FY 03). This is a below threshold, 5-year multi-year contract.
 Multi-year contracting with the two current producers will maintain a stable production base and will assure continued timely delivery of user requirements.
 TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG TANK 120MM TPCSDS-T M865 (E73400)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	1659	211	189	240	165	199	198	198	198	198		3455
Gross Cost	1111.8	115.4	114.8	129.5	86.0	104.7	102.1	97.2	94.3	96.0	0.0	2051.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1111.8	115.4	114.8	129.5	86.0	104.7	102.1	97.2	94.3	96.0	0.0	2051.9
Initial Spares												
Total Proc Cost	1111.8	115.4	114.8	129.5	86.0	104.7	102.1	97.2	94.3	96.0	0.0	2051.9
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 120mm M865 Target Practice Cone-Stabilized Discarding Sabot with Tracer (TPCSDS-T) is a target practice round that simulates the ballistics of the 120mm M829A2 Armor Piercing Fin-stabilized Discarding Sabot with Tracer round. This round is fired from the M256 120mm cannon on the M1A1/M1A2 Abrams tank. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. FY00/FY01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals. The requested ammunition is required to support annual tank proficiency training for 120mm gunned tanks. Training with this round simulates the firing of the Army's most lethal armor-defeating kinetic energy round in support of Army readiness objectives. The acquisition strategy for FY99/FY03 will be a five year multi-year production contract.

TYPE CLASSIFICATION DATE: 1984

ACQUISITION MANAGER:
 IOC, Rock Island, Ill

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG TANK 120MM TPCSDS-T M865 (E73400)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Complete Round			99108	189	524.01	125520	240	523.00	86027	165	521.38	104077	199	523.00
SubTotal AMMO Hardware			99108			125520			86027			104077		
Production Support Costs														
Production Engineering			10129			3234						500		
Quality Assurance			248			35						6		
Acceptance Testing			1140			759						99		
Interim Transportation			714											
Industrial Stock Support			3507											
SubTotal Prod. Support			15738			4028						605		
TOTAL			114846		607.22	129548		539.78	86027		521.38	104682		526.04

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG TANK 120MM TPCSDS-T M865 (E73400)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Complete Round FY 98	Alliant Tech Sys, Inc New Brighton, MN	CM-4/FP	IOC	Dec-97	Oct-98	114	#484.24			Oct 97
FY 98	Primex Tech, Inc St. Petersburg, FL	CM-4/FP	IOC	Dec-97	Nov-98	75	#554.54			Oct 97
FY 99****	TBS	CM-1/FP	IOC	Mar-99	Oct-99	240	523.00	Yes		Jan 99
FY 00****	TBS	CM-2/FP	IOC	Jan-00	Oct-00	165	521.38	Yes		Oct 99
FY 01****	TBS	CM-3/FP	IOC	Jan-01	Oct-01	199	523.00	Yes		Oct 00

REMARKS:

Actual Contract Price for multiple producers
 Multi-Year I Procurement FY 95 - FY 98
 Multi-Year II Procurement FY 99 - FY 03
 ****This is a below-threshold 5-year Multi-Year contract.
 Multi-Year contracting with the two current producers will maintain a stable production base and will assure continued timely delivery of user requirements.
 TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG ARTY 105MM BLANK M395 (E21200)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	284				125							409
Gross Cost	6.8	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	13.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	6.8	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	13.6
Initial Spares												
Total Proc Cost	6.8	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	13.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The cartridge 105mm blank M395 consists of a short cartridge containing a black powder charge and primer. The cartridge case is either brass, steel, or aluminum. The round weighs 6.02 lbs. And is fired from the M101, M101A1, M102, and M119 howitzers. This cartridge is used to support training exercises, retreat ceremonies, VIP salutes, and burial ceremonies. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item, not used in combat. FY00 procurement supports annual training and builds toward a 200-day depot level, supporting authorized retention quantity for use upon death of past Presidents.

TYPE CLASSIFICATION DATE:
1962

ACQUISITION MANAGER:
IOC, Rock Island, Ill

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG ARTY 105MM BLANK M395 (E21200)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack									6423	125	51.36			
Primer Perc M61									91	148	0.62			
SubTotal AMMO Hardware									6514					
Production Support Costs														
Production Engineering									119					
Quality Assurance									45					
Acceptance Testing									2					
Industrial Stock Support									94					
SubTotal Prod. Support									260		VAR			
TOTAL									6774		54.16			

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG ARTY 105MM BLANK M395					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble and Pack FY 00	TBS	C/FP	IOC	Mar-00	Jan-01	125	51.36	Y		Oct-99
Primer Perc M61 FY 00	TBS	C/FP	IOC	Feb-00	Nov-00	148	0.62	Y		Oct-99

REMARKS: TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG ARTY 105MM DPICM M915 (E53500)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY2004	FY 2005	To Complete	Total Prog
Proc Qty		4	5									9
Gross Cost	0.0	12.8	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	12.8	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4
Initial Spares												
Total Proc Cost	0.0	12.8	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 The 105MM Dual Purpose Improved Conventional Munition (DPICM) M915 is the extended range round for the M119A1 howitzer. This cartridge incorporates the M200 propelling charge whose projectiles contain a sub-munition payload of 42 dual purpose M80 grenades. The projectiles utilize a one piece all steel body/ogive assembly which is scalloped to contain the cargo without additional ancilliary hardware (keys, splines, spacers, etc.). Projectile functioning is the same as the 155mm ICM round, the M483A1. The M80 is a 1.22 inch diameter fragmentation/shaped charge grenade optimized for the 105mm system. It uses a post embossed Rhombus fragmentation pattern for superior anti-personnel performance. In response to the problem of hazardous battlefield duds, the M80 grenade will be the first ICM bomblet to utilize self destruct fuzing. This item is code B, not approved for service use.

JUSTIFICATION:
 Procurement supports the acquisition of a more lethal artillery round and provides "deep strike" round capability for the Light Infantry Division (LID). It increases sustainability of the LID on the battlefield. It replaces the Cartridge, 105mm and Anti-Personnel (APICM), M444. By utilizing a self-destruct fuze with sub-munition, the dud rate problem of any unexploded sub-munitions should be greatly reduced. Procurement builds war reserve stockpiles in support of the Army's procurement goal.

Type Classification Date: TC-Low Rate Procurement March 1998 TC STD September 2000

Acquisition Manager: TACOM-ARDEC, Picatinny Arsenal, NJ

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG ARTY 105MM DPICM M915 (E53500)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
AMMUNITION HARDWARE														
1. Load, Assemble, and Pack	B		1335	4563	293									
2. Proj Mtl Parts			2157	4563	473									
3. Fuze, ET M762			570	4563	125									
4. Gren Body Assy			493	191654	3									
5. Fuzes, M234 Gren SD			2108	200000	11									
6. Cartridge Case M217			351	4563	77									
7. Container PA 117			306	4563	67									
8. Other Hardware			308	4563	67									
SubTotal AMMO Hardware			7628											
Production Support Costs														
Production Engineering			1257											
Quality Assurance			211											
Acceptance Testing			500											
Interim Transportation			61											
SubTotal Prod. Support			2029											
COST - Nonrecurring														
1. Government Furnished Material			-96											
2. Firing Tables/Software Update			61											
SubTotal COST-Nonrecurring			-35											
TOTAL			9622		2109									

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG ARTY 105MM DPICM XM915 (E53500)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. Load, Assemble, and Pack										
FY 97	Day & Zimmerman Inc	SS/CPFF	IOC	Sep-98	Oct-99	4340	293.00			
FY 98	Day & Zimmerman Inc	SS/CPFF	IOC	Sep-98	Feb-00	4563	293.00	Yes		
2. Proj Mtl Parts										
FY 97	Chamberlain Mfg.(Scranton,PA)	SS/CPFF	TACOM-ARDEC	Apr-98	Jan-99	4340	539.88			
FY 98	Chamberlain Mfg.(Scranton,PA)	SS/CPFF	TACOM-ARDEC	Apr-98	Apr-99	4563	472.67	Yes		
3. Fuze, ET M762										
FY 97	Multiple	Stock	IOC	Stock	Stock	4340	69.82			
FY 98	Multiple	Stock	IOC	Stock	Stock	4653	125.03	Yes		
4. Gren Body Assy										
FY 97	Amron Corporation	SS/FP	TACOM-ARDEC	Jun-98	Apr-99	182280	6.26			
FY 98	Amron Corporation Waukesha, WI	SS/FP	TACOM-ARDEC	Jun-98	Jan-00	191654	2.57	Yes		
5. Fuzes, M234 Gren SD										
FY 97	KDI Precision Products	SS/FP	TACOM-ARDEC	Sep-98	Aug-99	200000	10.54			
FY 98	KDI Precision Products Cincinnati, OH	SS/FP	TACOM-ARDEC	Sep-98	Feb-99	200000	10.54	Yes		
6. Cartridge Case M217/Primer M28										
FY 97	UNKNOWN	C/FP	TACOM-ARDEC	Sep-98	Jun-99	4340	75.30			
FY 98	UNKNOWN	C/FP	TACOM-ARDEC	Sep-98	Sep-99	4563	76.96	Yes		
7. Containers/Pallets										
FY 97	Various	C/FP	TACOM-ARDEC	May-98	Nov-98	4340	85.83			
FY 98	Various	C/FP	TACOM-ARDEC	Jun-98	Apr-99	4563	67.03	Yes		

REMARKS: *GFM as shown on the P5 consists of COMP A5 and M10 Propellant and are part of the Other Hardware line.

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG ARTY 105MM DPICM M915 (E53500)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01												LATER
							Calendar Year 00												Calendar Year 01												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. Load, Assemble, and Pack	1	97	A	4.0		4.0	0.5	1.0	1.0	1.5																					
	1	98	A	5.0		5.0					2.0	2.0	1.0																		

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Day & Zimmerman	2	6	14		INITIAL	6	6	11	17	
						REORDER	6	6	11	17	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG, ARTY, 105MM M927 (E93300)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty				6842								6842
Gross Cost	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 105MM High Explosive Rocket Assisted (HERA) Cartridge M927 has extended range capability and is used for fragmentation, blast and mining in support of ground troops and armored columns. It contains two distinctive preassembled components, a high explosive warhead and rocket motor. The round utilizes a seven bag propelling charge with flash reducer (M67) and is used with the M119, M101A1 and M102 Howitzer systems. This item is Code A, approved for service use.

JUSTIFICATION:

The procurement supports the acquisition of a more lethal artillery round and provides a "deep strike" round capability for the National Guard Bureau. It improves counter-battery fire and increases sustainability of the NGB on the battlefield. As the NGB only has M102 Howitzers, they cannot fire the Zone 8 M913 HERA (which is restricted to the M119A1 Howitzer). Therefore, this round is required to provide extended range capability for the NGB.

TYPE CLASSIFICATION: Sep 94

ACQUISITION MANAGER: IOC, Rock Island, IL

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG, ARTY, 105MM M927 (E93300)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack						1159	6842	169.45						
Warhead Body Assembly						1034	6979	148.11						
Rkt Motor Grain						1031	6979	147.76						
Rkt Motor Body						450	6979	64.43						
Ignition Delay						501	6979	71.78						
Ctg Case Steel M14B4						76	6979	10.83						
*M67 Prop Charge						134	6842	19.54						
Primer 28B2						26	6979	3.69						
*TNT Type I Flake (LB)						48	34382	1.41						
Supplemental Charge						59	6979	8.39						
SubTotal AMMO Hardware						4518								
Production Support Costs														
Production Engineering						448								
Quality Assurance						11								
Acceptance Testing						52								
Interim Transportation						49								
Industrial Stock Support						90								
SubTotal Prod. Support						650								
COST - Nonrecurring														
Government Furnished Material						-182								
SubTotal COST-Nonrecurring						-182								
TOTAL						4986		728.68						

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition				Weapon System Type:			P-1 Line Item Nomenclature: CTG, ARTY, 105MM M927 (E93300)				
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date	
Load, Assemble, and Pack FY 99	American Ordnance (Iowa AAP) Middletown, IA	SS/FP	IOC	Aug-99	Jul-00	6842	169.45	Y		Jun-99	
Warhead Body Assembly FY 99	TBS	C/FP	IOC	Jan-00	Jun-00	6979	148.11	Y		Nov-99	
Rkt Motor Grain FY 99	TBS	C/FP	IOC	Dec-99	May-00	6979	147.76	Y		Oct-99	
Rkt Motor Body FY 99	TBS	C/FP	IOC	Dec-99	May-00	6979	64.43	Y		Oct-99	
Ignition Delay FY 99	TBS	C/FP	IOC	Dec-99	May-00	6979	71.78	Y		Oct-99	
Ctg Case Steel M14B4 FY 99	TBS	C/FP	IOC	Dec-99	May-00	6979	10.83	Y		Oct-99	
*M67 Prop Charge FY 99	Stock Issue	N/A	N/A	N/A	N/A	6842	N/A				
Primer 28B2 FY 99	TBS	C/FP	IOC	Dec-99	May-00	6979	3.69	Y		Oct-99	
*TNT Type I Flake (LB) FY 99	Stock Issue	N/A	N/A	N/A	N/A	34382	N/A				

REMARKS: *Government Furnished Material
TBS - To Be Selected

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG, ARTY, 105MM M927 (E93300)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Supplemental Charge FY 99	TBS	C/FP	IOC	Dec-99	May-00	6979	8.39	Y		Oct-99

REMARKS: TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No:
PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:
CTG ARTY 105MM ILLUM M314 SERIES (E21700)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	4112				14	10	10		10	22		4178
Gross Cost	255.1	0.0	0.0	0.0	8.0	6.0	6.0	0.0	6.2	12.9	0.0	294.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	255.1	0.0	0.0	0.0	8.0	6.0	6.0	0.0	6.2	12.9	0.0	294.2
Initial Spares												
Total Proc Cost	255.1	0.0	0.0	0.0	8.0	6.0	6.0	0.0	6.2	12.9	0.0	294.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 105mm M314 Illumination Cartridge is used to illuminate a designated target area. It has a hollow steel forged projectile with a streamlined ogive, gliding metal rotating band, and a pinned base plug. The projectile cavity contains the expelling charge, illuminating canister, and parachute assembly. The projectile is assembled with a MTSQ fuze. The round is fired in the M101, M101A1, M102 and M119 Howitzers. This item is Code A, approved for service use.

JUSTIFICATION:

FY 00/01 procurements support acquisition of training and war reserve stockpile in accordance with Department of Defense guidance.

TYPE CLASSIFICATION: 1QFY70

ACQUISITION MANAGER: IOC, Rock Island, IL

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: CTG ARTY 105MM ILLUM M314 SERIES (E21700)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack									3856	13962	276.15	2857	10175	280.83
Proj 105 M314A2E1									1513	14242	106.21	1121	10379	108.01
*Ctg Case Steel M14B4									183	14242	12.82	133	10379	12.82
*Charge Prop									140	14242	9.83	102	10379	9.83
Prop M1 SP (LB)									82	9076	9.00	61	6614	9.15
*Prop M1 MP (LB)									130	31136	4.17	95	22691	4.17
*Primer 28B2									77	27663	2.79	56	20160	2.79
Fuze Artillery Elec Time M762									1892	13962	135.48	1402	10175	137.78
Container Fiber M105A3									159	14242	11.15	118	10379	11.34
SubTotal AMMO Hardware									8032			5945		
Production Support Costs														
Production Engineering									219			219		
Quality Assurance									5			5		
Acceptance Testing									82			82		
Interim Transportation									77			49		
Industrial Stock Support									115			86		
SubTotal Prod. Support									498			441		
COST - Nonrecurring														
Government Furnished Material									-530			-386		
SubTotal COST-Nonrecurring									-530			-386		
TOTAL									8000		572.96	6000		589.66

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition	Weapon System Type:			P-1 Line Item Nomenclature: CTG ARTY 105MM ILLUM M314 SERIES (E21700)						
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack FY 00	Pine Bluff Arsenal (PBA) Pine Bluff, AR	SS/FP	IOC	Mar-00	May-01	13962	276.15	Y		Oct-99
FY 01	Pine Bluff Arsenal (PBA) Pine Bluff, AR	SS/FP	IOC	Mar-01	May-02	10175	280.83	Y		Oct-00
Proj 105 M314A2E1** FY 00	TBS	C/FP	IOC	Apr-00	Mar-01	14242	106.21	Y		Oct-99
FY 01	TBS	C/FP	IOC	Apr-01	Mar-02	10379	108.01	Y		Oct-00
*Ctg Case Steel M14B4 FY 00	Stock Issue	N/A	N/A	N/A	N/A	14242	N/A			
FY 01	Stock Issue	N/A	N/A	N/A	N/A	10379	N/A			
*Charge Prop FY 00	Stock Issue	N/A	N/A	N/A	N/A	14242	N/A			
FY 01	Stock Issue	N/A	N/A	N/A	N/A	10379	N/A			
Prop M1 SP (LB) FY 00	TBS	C/FP	IOC	Apr-00	Mar-01	9076	9.00	Y		Oct-99
FY 01	TBS	C/FP	IOC	Apr-01	Mar-02	6614	9.15	Y		Oct-00
*Prop M1 MP (LB) FY 00	Stock Issue	N/A	N/A	N/A	N/A	31136	N/A			
FY 01	Stock Issue	N/A	N/A	N/A	N/A	22691	N/A			
*Primer 28B2 FY 00	Stock Issue	N/A	N/A	N/A	N/A	27663	N/A			
FY 01	Stock Issue	N/A	N/A	N/A	N/A	20160	N/A			

REMARKS: *Government Furnished Material
**Pacing Component
TBS - To Be Selected

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG ARTY 105MM ILLUM M314 SERIES (E21700)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Fuze Artillery Elec Time M762										
FY 00	TBS	C/FP	IOC	Apr-00	Mar-01	13962	135.48	Y		Oct-99
FY 01	TBS	C/FP	IOC	Apr-01	Mar-02	10175	137.78	Y		Oct-00
Container Fiber M105A3										
FY 00	TBS	C/FP	IOC	Mar-00	Jan-01	14242	11.15	Y		Oct-99
FY 01	TBS	C/FP	IOC	Mar-01	Jan-02	10379	11.34	Y		Oct-00

REMARKS: TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

PROJ ARTY 155MM SMOKE WP M825 (E67800)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	460											460
Gross Cost	194.4	11.6	12.3	0.0	14.8	14.8	0.0	0.0	0.0	0.0	0.0	247.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	194.4	11.6	12.3	0.0	14.8	14.8	0.0	0.0	0.0	0.0	0.0	247.9
Initial Spares												
Total Proc Cost	194.4	11.6	12.3	0.0	14.8	14.8	0.0	0.0	0.0	0.0	0.0	247.9
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M825 series 155mm white phosphorous (WP) smoke projectile is designed to be ballistically similar to the M483A1 family of projectiles and is compatible with all current and developmental U.S. 155mm artillery weapon systems. The M825 series projectile is required to provide fire support to forward area troops and equipment. Artillery delivered smoke screens are required in combat situations to support maneuver forces by reducing the effectiveness of enemy visual observation. The M825 series projectile consists of a modified M483A1 carrier, a felt wedge payload, a base, and a separately issued fuze. The modified carrier uses steel instead of the standard M483A1 fiber glass wrap about the circumference of the projectile carrier to offset the low density of the payload. The payload consists of 116 WP soaked felt wedges in a hermetically sealed canister positioned in the projectile body between the ogive and the base. The canister is a cylinder of thin rolled steel to which flat steel ends are welded. Either a mechanical or electronic time fuze is used to detonate the explosion charge setting off a chain reaction resulting in the expulsion, ignition, and dissemination of the felt wedges thus creating the desired smoke screen. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training standard item used in both training and combat. FY 00/01 procurements support an urgently needed materiel change to correct current design defects that result in a high malfunction rate which threatens the safety of the using unit. The purpose of the materiel change is to test an improved design to allow resumption of prior year production and subsequent renovation of existing stocks. Renovation of these stocks is required to support annual peacetime training requirements and build a war reserve inventory in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: 1982

ACQUISITION MANAGER: IOC, Rock Island, Ill.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: PROJ ARTY 155MM HE M795 (E66800)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	210	84	74		20							388
Gross Cost	105.2	39.9	34.6	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	189.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	105.2	39.9	34.6	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	189.6
Initial Spares												
Total Proc Cost	105.2	39.9	34.6	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	189.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The M795 projectile consists of 23.8 pounds of TNT explosive loaded into a 78.1 pound high fragmentation steel body assembly. The projectile is fitted with a protective shock attenuating lifting plug at the nose and a grommet which protects the rotating band during shipping and handling. The projectile can use several different fuzes (impact, mechanical time and short intrusion proximity). The M795 will supplement the currently stockpiled M107. It will be used for conventional fire support for Harassment and Interdiction, fragmentation, mining and blast effect. It is also used as a registration round for the M483A1 family of cargo munitions and can be used a registration round for the 155mm Sense and Destroy Armor (SADARM) M898. It provides greater range and effectiveness than the M107, which cannot be fired at top zone with the M203A1 (Zone 8) charge. The FY 2000 budget provides for production of war reserve requirements. This item is Code A, approved for service use.

JUSTIFICATION: The M795 will support the following howitzers: M198, M109 Series, including Paladin, and the Trilateral FH70 and Crusader. A limited number of projectiles will be used for training purposes.

TYPE CLASSIFICATION DATE: February 1982

ACQUISITION MANAGER: PM ARMS

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: PROJ ARTY 155MM HE M795 (E66800)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack			9996	74	136				2615	20	134			
Metal Parts			16800	75	224				4516	20	226			
Metal Pallets			2184	10	218				493	3	197			
Lifting Plugs			558	77	7				138	20	7			
SubTotal AMMO Hardware			29538						7762					
Production Support Costs														
Production Engineering			3600						1722					
Quality Assurance			303						80					
Acceptance Testing			1200						296					
SubTotal Prod. Support			5103						2098					
COST - Nonrecurring														
First Article Testing														
Value Engineering														
Product Improvement														
Government Furnished Material														
SubTotal COST-Nonrecurring														
TOTAL			34641		471				9860		506			

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: PROJ ARTY 155MM HE M795 (E66800)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack										
FY 98	American Ordnance, Iowa AAP	C/FFP	ARDEC, Picatinny Arsenal	Jan-99	Apr-01	74	136	Yes		Jul 98
FY 00	American Ordnance, Iowa AAP	Option	ARDEC, Picatinny Arsenal	Jan-00	Feb-02	20	134	Yes		
Metal Parts										
FY 98	Chamberlain, Scranton AAP	C/FFP	ARDEC, Picatinny Arsenal	Feb-99	Feb-01	75	224	Yes		Jul 98
FY 00	Chamberlain, Scranton AAP	Option	ARDEC, Picatinny Arsenal	Jan-00	Dec-01	20	226	Yes		
Metal Pallets										
FY 98	TBS	C/FFP	ARDEC, Picatinny Arsenal	Feb-99	Feb-01	10	218	Yes		Aug 98
FY 00	TBS	Option	ARDEC, Picatinny Arsenal	Jan-00	Nov-01	3	197	Yes		
Lifting Plugs										
FY 98	TBS	C/FFP	ARDEC, Picatinny Arsenal	Feb-99	Feb-01	77	7	Yes		Aug 98
FY 00	TBS	Option	ARDEC, Picatinny Arsenal	Jan-00	Nov-01	20	7	Yes		

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: PROJ ARTY 155MM HE M795 (E66800)													Date: February 1999													
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98												Fiscal Year 99												LATER		
							Calendar Year 98												Calendar Year 99														
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
Load, Assemble, and Pack	1	FY97&P	A	293.7		293.7		1.0	0.2	0.1	2.0	2.0	2.1	0.8	2.2	4.0	6.0	8.1	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.5	10.5	11.0	11.0	11.0	11.0	150.2	
	1	FY 98	A	73.5		73.5																	A									73.5	
	1	FY 00	A	19.5		19.5																										19.5	
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
MFR	PRODUCTION RATES				REACHED	MFR Number	ADMIN LEAD TIME				MFR	TOTAL	REMARKS																				
	NAME / LOCATION	MIN.	1-8-5	MAX.	D +		Prior 1 Oct.	After 1 Oct.		After 1 Oct.	After 1 Oct.																						
1	American Ordnance, Iowa AAP	7	11	28		1	INITIAL	1	16	26	42																						
							REORDER	3	3	25	28																						
							INITIAL																										
							REORDER																										
							INITIAL																										
							REORDER																										
							INITIAL																										
							REORDER																										

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: PROJ ARTY 155MM SADARM M898 (E66300)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	236	600	300	100	227	460	730	1300	3125	1455	41467	50000
Gross Cost	74.7	93.6	65.3	31.5	54.5	63.6	76.5	92.8	154.6	82.8	1266.7	2056.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	74.7	93.6	65.3	31.5	54.5	63.6	76.5	92.8	154.6	82.8	1266.7	2056.7
Initial Spares												
Total Proc Cost	74.7	93.6	65.3	31.5	54.5	63.6	76.5	92.8	154.6	82.8	1266.7	2056.7
Flyaway U/C												
Wpn Sys Proc U/C	0.316	0.156	0.218	0.315	0.240	0.138	0.105	0.071	0.049	0.057	0.031	0.041

DESCRIPTION: The 155mm Sense and Destroy Armor (SADARM) projectile will provide an enhanced counterbattery and anti-armored vehicle capability to attack targets well beyond the Forward Line of Troops (FLOT). The SADARM projectile will function in a fire and forget mode. This indirect fire mission can be accomplished under inclement weather, degraded battlefield conditions and Nuclear, Biological, Chemical (NBC) environments, both day and night. The SADARM munitions are designed for use against self-propelled howitzers, armored personnel carriers and other stationary armored threat vehicles encountered in counterfire, close support, Suppression of Enemy Air Defense (SEAD) and interdiction. The 155mm SADARM is delivered in the same manner as other 155mm munitions. Once dispensed from its carrier, the submunition detects targets using dual-mode millimeter wave and infrared sensors, and fires an explosively formed penetrator through the top of the target. The projectile is compatible with the momentum limits of standard and developmental 155mm Howitzers including Crusader and LW155 Towed. It is ballistically similar to the cargo family of 155mm ammunition. Operational interface with other systems will be accomplished through Tactical Fire Control System (TACFIRE), Advanced Field Artillery Tactical Data System (AFATDS), and appropriate target acquisition sources. The item is Code A, approved for limited service use.

JUSTIFICATION: The FY 00/FY 01 budget provides for production of war reserve requirements. The SADARM procurement will provide pinpoint accuracy to destroy hardened targets and will reduce consumption of artillery ammunition. SADARM will support the Howitzer M109 series, including Paladin and M198 Howitzer systems

Type Classification Dates: Low Rate Production: January 1995
 Standard: May 2003
 Milestone Approval: Milestone IIIA (DAB): March 1995
 Milestone III (ASARC): May 2003 (SADARM P3I planned)
 ACQUISITION MANAGER: PEO GCSS/PM SADARM

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: PROJ ARTY 155MM SADARM M898 (E66300)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost \$000	Qty Each	UnitCost \$	TotalCost \$000	Qty Each	UnitCost \$	TotalCost \$000	Qty Each	UnitCost \$	TotalCost \$000	Qty Each	UnitCost \$
AMMUNITION HARDWARE	A												
CompleteRound		29262	300	97540	20817	100	208170	43108	227	189903	53335	460	115946
Metal Pallet								6	29	207	11	58	190
SubTotal AMMO Hardware		29262			20817			43114			53346		
Production Support Costs													
Production Engineering		8223			5227			4854			5130		
Quality Assurance		260			290			264			270		
Acceptance/Reliability Confidence Testing		230			220			1778			1806		
Production Testing		2387			1199								
SubTotal Prod. Support		11100			6936			6896			7206		
COST - Nonrecurring													
First Article Testing													
Value Engineering		617			2100			2071			2068		
Live Fire Testing		1055											
Initial Production Testing		1752											
Cost Reduction/Reliability Growth					1600			2465			985		
Cost Growth		21557											
SubTotal COST-Nonrecurring		24981			3700			4536			3053		
Flyaway Unit Cost													
TOTAL		65343		217810	31453		314530	54546		240291	63605		138272

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: PROJ ARTY 155MM SADARM M898 (E66300)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
CompleteRound										
FY 98	Aerojet, Azusa CA	OPTION	ARDEC, Picatinny Arsenal	Aug 98*	Jun-00	300	97540	Yes		
FY 99	Aerojet, Azusa CA	OPTION	ARDEC, Picatinny Arsenal	Jul-99	Dec-00	100	208170	Yes		
FY 00	Aerojet, Azusa CA	SS/FFP	ARDEC, Picatinny Arsenal	Jan-00	Mar-01	227	189903	Yes		Jul 99
FY 01	Aerojet, Azusa CA	OPTION	ARDEC, Picatinny Arsenal	Jan-01	Mar-02	460	115946	Yes		
Metal Pallet										
FY 00	Nomura, Rock Island IL	SS/FFP	ARDEC, Picatinny Arsenal	Jan-00	Jan-01	29	207	Yes		
FY 01	Nomura, Rock Island IL	SS/FFP	ARDEC, Picatinny Arsenal	Jan-99	Jan-02	58	190	Yes		

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: PROJ ARTY 155MM SADARM M898 (E66300)													Date: February 1999											
COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 98												Fiscal Year 99												L A T E R
							Calendar Year 98						Calendar Year 99																		
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR							
CompleteRound	1	97&p	A	836	83	753	35	6	3	10	10	6	20	20	43	31	12	12	12	12	3	8	10	10	10	10	40	45	40	33	312
	1	FY 98	A	300		300																								300	
	1	FY 99	A	100		100																						A		100	
	1	FY 00	A	227		227																								227	
	1	FY 01	A	460		460																								460	
	2	FY 02	A	730		730																								730	
	2	FY 03	A	1300		1300																								1300	
	2	FY 04	A	3125		3125																								3125	
	2	FY 05	A	1455		1455																								1455	

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.			
1	Aerojet, Azusa CA (FY95-01)	20	50	125		INITIAL	3	6	19	25	The contractor has self-facilitized to higher rates; however, the production line has been redesigned to be more efficient at the lower program rates. When the yearly quantities increase , the contractor will self-facilitize to higher rates utilizing replicate individual pieces of tooling.
2	Aerojet, Azusa CA (FY02-05)	99	155	388		REORDER	3	3	14	17	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: REMOTE AREA DENIAL ARTILLERY MUNITION (E67505)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty					100	108	110	110				428
Gross Cost	0.0	0.0	0.0	0.0	48.3	48.2	48.6	48.6	0.0	0.0	0.0	193.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	48.3	48.2	48.6	48.6	0.0	0.0	0.0	193.7
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	48.3	48.2	48.6	48.6	0.0	0.0	0.0	193.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 The Remote Area Denial Artillery Munition (RADAM) projectile, is a single shot device used with 155mm howitzers. The RADAM will use the existing Area Denial Artillery Munition (ADAM) and Remote Anti-Armor Munition (RAAM) submunitions to emplace artillery-delivered minefields to delay, disrupt, destroy and deny the enemy the use of certain terrain. Each RADAM projectile will contain anti-personnel and anti-armor submunitions that will self-destruct at a preset period of time. No modifications will be made to the submunitions. The RAAMS anti-armor mines accomplish the area denial objective of the minefield. The anti-armor mine arms after coming to rest on the ground. Any threat armored object passing over the mine will cause it to initiate and damage or destroy the vehicle. The ADAM anti-personnel submunitions prevent enemy personnel from neutralizing/breaching the RAAMS in the minefield, after the minefield has been emplaced. The anti-personnel submunitions arm themselves after coming to rest on the ground. Individual trip wires will be extended from each submunition. When disturbed by enemy movement, the trip wire will activate the explosive sequence.

JUSTIFICATION:
 The RADAM projectile program is an initiative to implement Presidential policy and DoD direction. The National Command Authorities (NCA) have determined that the use of a single projectile with mixed systems containing both self-destruct (SD) anti-personnel and anti-armor submunitions preserves the right to employ artillery delivered FASCAM (Family of Scatterable Mines) mines in order to deny enemy the use of certain terrain and for force protection.

Type Classification Date: (Projected) April 2000; Initial Operational Capability: (Projected) October 2000
 Acquisition Manager: Project Manager for Mines, Countermine and Demolitions (PM-MCD)

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: REMOTE AREA DENIAL ARTILLERY MUNITION (E67505)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
HARDWARE LOAD, ASSEMBLE AND PACK COMPLETE ROUND									40900	100	409	42070	108	390
SUBTOTAL									40900			42070		
PRODUCTION ENGINEERING QUALITY ASSURANCE ACCEPTANCE TESTING									800			700		
									250			200		
									6300			5200		
SUBTOTAL									7350			6100		
TOTAL									48250	100	483	48170	108	446

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: REMOTE AREA DENIAL ARTILLERY MUNITION (E67505)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
LOAD, ASSEMBLE AND PACK	TBS	C/FP	ARDEC	May-00	May-01	100	409	Yes		Jan-00
FY 00 COMPLETE ROUND										
FY 01 COMPLETE ROUND	TBS	Option	ARDEC	Dec-01	Apr-02	108	390	Yes		Dec-01

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: PROJ ARTY 155MM HE M107 (E27601)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	26605			199	113	162	167	166	170	307		27889
Gross Cost	950.7	0.0	0.0	32.6	25.0	35.4	35.5	35.8	36.2	65.6		1216.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	950.7	0.0	0.0	32.6	25.0	35.4	35.5	35.8	36.2	65.6	0.0	1216.8
Initial Spares												
Total Proc Cost	950.7	0.0	0.0	32.6	25.0	35.4	35.5	35.8	36.2	65.6	0.0	1216.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This is a multi-purpose high explosive projectile fired from 155mm howitzers. It is used for blast effect and fragmentation. The projectile may be loaded with either 14.6 pounds of TNT or 15.4 pounds of composition B explosives. The normal cavity model will not accommodate a proximity-type fuze. The deep-cavity model has a supplementary charge of .3 pounds which may be removed to allow the use of proximity fuzes. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training standard item used in both training and combat. FY00/FY01 procurements support annual peacetime training requirements and build war reserve inventory in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: 1958

ACQUISITION MANAGER: IOC, Rock Island, Ill.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: PROJ ARTY 155MM HE M107 (E27601)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE													
Load, Assemble, and Pack					14250	199	71.43	7727	113	68.52	10369	162	64.14
Proj M107 MPTS					14343	118	121.05	13925	115	121.05	19960	165	121.05
*Proj M107 MPTS					9095	85	107.00						
*Comp B Type 1 Grade A (LB)					5009	3232	1.55	2832	1827	1.55	4059	2619	1.55
*TNT Type 1 Flake (LB)					1913	1357	1.41	1081	767	1.41	1550	1099	1.41
Plug, Shock Attenuating					583	118	4.92	574	115	4.99	837	165	5.08
*Plug, Shock Attenuating					146	85	1.72						
Grommet					122	120	1.02	120	116	1.03	174	167	1.05
*Grommet					68	85	0.80						
*Metal Pallet Assy					4930	25	196.89	2787	14	196.89	3995	20	196.89
SubTotal AMMO Hardware					50459			29046			40944		
Production Support Costs													
Production Engineering					1613			1375			2511		
Quality Assurance					79			5			5		
Acceptance Testing					127			419			902		
Interim Transportation					432			407			45		
Industrial Stock Support					1009			421			594		
SubTotal Prod. Support					3260			2627			4057		
COST- Nonrecurring													
Government Furnished Material					-21161			-6700			-9604		
SubTotal COST-Nonrecurring					-21161			-6700			-9604		
TOTAL					32558		163.20	24973		221.44	35397		218.96

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: PROJ ARTY 155MM HE M107 (E27601)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack FY 99	American Ordnance (IAAP) Middletown, IA	SS/FP	IOC	Jan-99	Mar-00	199	71.43	Y		Nov 98
FY 00	American Ordnance (IAAP) Middletown, IA	SS/FP	IOC	Mar-00	Mar-01	113	68.52	Y		Oct 99
FY 01	American Ordnance (IAAP) Middletown, IA	SS/FP	IOC	Mar-01	Mar-02	162	64.14	Y		Oct 00
*Proj M107 Metal Parts FY 99**	TBS	CM-1/FP	IOC	Sep-99	Jun-00	118	121.05	Y		Jul 99
FY 99	Stock Issue	N/A	N/A	N/A	N/A	85	N/A			
FY 00**	TBS	CM-2/FP	IOC	Mar-00	Jan-01	115	121.05	Y		Oct 99
FY 01**	TBS	CM-3/FP	IOC	Mar-01	Jan-02	165	121.05	Y		Oct 00
*Comp B Type 1 Grade A (LB) FY 99	Stock Issue	N/A	N/A	N/A	N/A	3232	N/A	Y		
FY 00	Stock Issue	N/A	N/A	N/A	N/A	1827	N/A	Y		
FY 01	Stock Issue	N/A	N/A	N/A	N/A	2619	N/A	Y		
*TNT Type 1 Flake (LB) FY 99	Stock Issue	N/A	N/A	N/A	N/A	1357	N/A	Y		
FY 00	Stock Issue	N/A	N/A	N/A	N/A	767	N/A	Y		
FY 01	Stock Issue	N/A	N/A	N/A	N/A	1099	N/A	Y		

REMARKS: *Government Furnished Material
 **Pacing Component
 TBS - To Be Selected
 The Projectile, M107 Metal Parts is a below-threshold, 5-year multiyear contract (FY99-03).

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: PROJ ARTY 155MM HE M107 (E27601)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
*Plug, Shock Attenuating										
FY 99	Stock Issue	N/A		N/A	N/A	85	N/A			
FY 99	TBS	C/FP	IOC	Sep-99	Jun-00	118	4.92	Y		Jul 99
FY 00	TBS	C/FP	IOC	Mar-00	Jan-01	115	4.99	Y		Oct 99
FY 01	TBS	C/FP	IOC	Mar-01	Jan-02	165	5.08	Y		Oct 00
*Grommet										
FY 99	Stock Issue	N/A		N/A	N/A	85	N/A			
FY 99	TBS	C/FP	IOC	Sep-99	Jun-00	120	1.02	Y		Jul 99
FY 00	TBS	C/FP	IOC	Mar-00	Jan-01	116	1.03	Y		Oct 99
FY 01	TBS	C/FP	IOC	Mar-01	Jan-02	167	1.05	Y		Oct 00
*Metal Pallet Assy										
FY 99	Stock Issue	N/A	N/A	N/A	N/A	25	N/A	Y		
FY 00	Stock Issue	N/A	N/A	N/A	N/A	14	N/A	Y		
FY 01	Stock Issue	N/A	N/A	N/A	N/A	20	N/A	Y		

REMARKS: * Government Furnished Material
TBS - To Be Selected

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: PROJ ARTY 155MM HE M107 (E27601)															Date: February 1999									
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00												LATER
							Calendar Year 99												Calendar Year 00												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Load, Assemble, and Pack																															
	1	98	A	145.0		145.0																									
	1	99	A	199.0		199.0					2.0	12.0	12.0	12.0	12.0	12.0	13.0	14.0	14.0	14.0	14.0	14.0									
	1	00	A	113.0		113.0																						113.0			
	1	01	A	162.0		162.0																						162.0			
	1	01	MC	15.7		15.7																						15.7			
		98	ALL	145.0		145.0																									
		99	ALL	199.0		199.0					2.0	12.0	12.0	12.0	12.0	12.0	13.0	14.0	14.0	14.0	14.0	14.0									
		00	ALL	113.0		113.0																						113.0			
		01	ALL	178.0		178.0																						178.0			
Pacing Component: Proj M107 Mpts																															
	2	98	TOT	148.0	148.0																										
	3	99	TOT	203.0	85.0	118.0																				15.0	15.0	15.0	58.0		
	3	00	TOT	115.0		115.0																						115.0			
	3	01	TOT	180.0		180.0																						180.0			

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: MODULAR ARTILLERY CHARGE SYSTEM (MACS) (ER8021)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty					367	501	696	932	547	792		3835
Gross Cost	0.0	0.0	0.0	0.0	42.9	55.6	73.2	93.2	54.2	78.4	0.0	397.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	42.9	55.6	73.2	93.2	54.2	78.4	0.0	397.5
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	42.9	55.6	73.2	93.2	54.2	78.4	0.0	397.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: This budget line item funds production of the XM231/XM232 Modular Artillery Charge System (MACS), intended for use with US 155mm cannon field artillery systems including the M198 and XM777 towed cannon systems, the M109A3/A4/A5 and M109A6 Paladin self-propelled systems, and the XM2001 Crusader system. MACS consists of the XM231 "low zone" increment designed to achieve ranges from 3.0 to 11.5 km, the XM232 "high zone" increment designed to achieve ranges from 10-40+ km and their associated packaging. Each MACS increment includes propellant, an ignition system, and a combustible case. Performance enhancing additives are included in the XM232 "high zone" increment. Packaging permits long-term storage, transportation and helps protect the items from unplanned stimuli.

JUSTIFICATION: MACS is required to achieve necessary improvements to 155mm cannon field artillery operational flexibility, range, rate-of-fire, system accuracy and Insensitive Munitions (IM) compliance; especially when used with the XM2001 Crusader system. In addition, MACS is less expensive to procure than the current family of artillery propelling charges and is projected to decrease operation and support costs associated with artillery propelling charges at least 10% once fielded. Quantities reflect war reserve and training. The entire inventory of bag charges and M203 Propelling Charges will be replaced with MACS for training and war reserves.

TYPE CLASSIFICATION DATE: XM231
 XM232
ACQUISITION MANAGER: PEO GCSS/PM Crusader

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: MACS (ER8021)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Load, Assemble & Pack									14338	367	39	16802	501	34
Ignition System Propellant									750	25	30	1000	32	31
Combustible Case Sets									13300	400	33	17000	530	32
Propellant (single base)									7800	1200	7	7200	1100	7
Propellant (triple base)												6400	800	8
SubTotal AMMO Hardware									36188			48402		
Production Support Costs														
Production Engineering/System Integration									1800			1800		
Quality Assurance									500			700		
Acceptance Testing									1600			1500		
Transportation									1000			1300		
SubTotal Prod. Support									4900			5300		
COST - Nonrecurring														
First Article Testing									500			500		
Value Engineering									400			400		
Inert Training Devices									450			500		
Fielding									500			500		
SubTotal COST-Nonrecurring									1850			1900		
TOTAL									42938	367	117	55602	501	111

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: MACS (ER8021)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble & Pack FY00	TBS	C/FFP	Picatinny Arsenal, NJ	Apr-00	Oct-00	367	39	N		Dec 99
FY01	TBS	C/FFP	Picatinny Arsenal, NJ	Apr-99	Oct-99	501	34	N		Dec 00
Ignition System Propellant FY 00	Primex Technologies, St. Marks, FL	SS/FFP	Picatinny Arsenal, NJ	Jan-00	Aug-00	25	30	N		Jul 99
FY 01	Primex Technologies, St. Marks, FL	SS/FFP	Picatinny Arsenal, NJ	Jan-01	Aug-01	32	31	N		Jul 00
Combustible Case Sets FY 00	Armtec Defense Products, Coachella, CA	SS/FFP	Picatinny Arsenal, NJ	Jan-00	Jul-00	400	33	N		Jul 99
FY 01	Armtec Defense Products, Coachella, CA	SS/FFP	Picatinny Arsenal, NJ	Jan-01	Jul-01	530	32	N		Jul 00
Propellant (single base) FY 00	TBS	C/FFP	TBS	Jan-00	Jul-00	1200	7	N		Jul 99
FY 01	TBS	C/FFP	TBS	Jan-01	Jul-01	1100	7	N		Jul 00
Propellant (triple base) FY 01	TBS	C/FFP	TBS	Jan-01	Aug-01	800	8	N		Jul 00

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE	P-1 Item Nomenclature: MACS (ER8021)	Date: February 1999
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COST ELEMENTS	M F R	FY	S E R V	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02												Fiscal Year 03												L A T E R
							Calendar Year 02						Calendar Year 03						Calendar Year 03												
							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	
Load, Assemble & Pack																															
	1	FY 00	A	367	367																										
	2	FY 01	A	501	0	501	40	40	40	40	40	40	40	40	40	44	47	50													

	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
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M F R	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS	
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.				
1	TBS	20	40	100		1	INITIAL	3	6	6	12	
							REORDER	3	3	5	8	
2	TBS	25	50	125		2	INITIAL	3	6	6	12	
							REORDER	3	3	5	8	
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: FUZE ARTY ELEC TIME M767 (E61200)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	321		83	27	235	160	108	219	155	121		1429
Gross Cost	41.5	0.3	19.7	4.0	32.0	21.5	14.3	27.9	19.5	18.2	0.0	198.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	41.5	0.3	19.7	4.0	32.0	21.5	14.3	27.9	19.5	18.2	0.0	198.9
Initial Spares												
Total Proc Cost	41.5	0.3	19.7	4.0	32.0	21.5	14.3	27.9	19.5	18.2	0.0	198.9
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 The M767A1 Electronic Time (ET) Fuze is a boosted version of the M762A1 Electronic Time (ET) Fuze. The M767A1 version improves producibility, upgrades the technology, provides a more robust design, and enhances the user interface. The M767A1 will retain the existing dual setting capability: (1) Hand set mode without need for setter and (2) remote inductive setting mode for higher rates of fire. Inductive setting will support development testing of the 155mm Crusader Weapon system. The M767A1 will be available for use by the Crusader when fielded. Since the M767A1 Fuzes will be produced on the same production line, the procurement of the M767A1 will accelerate the achievement of a unit cost reduction for the entire ET artillery fuze family.

JUSTIFICATION:
 The FY00/FY01 procurements continue to support testing, training and war reserve requirements of the family of Improved Conventional Munitions (ICM).

TC Standard f/M767: Sep 1988
 f/M767A1: Dec 1999

ACQUISITION MANAGER: Army Fuze Management Office, Picatinny Arsenal, N.J.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: FUZE ARTY ELEC TIME M767 (E61200)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
AMMUNITION HARDWARE														
1. Load, Assemble, and Pack	A		615	83040	7.40	204	27208	7.50	1757	232368	7.56	1221	159552	7.65
2. Fuze Metal Parts - M767			2630	21040	125.00	2241	17256	129.89						
3. Fuze Metal Parts - M767A1			7033	62000	113.43	1129	9952	113.43	28175	232368	121.25	18612	159552	116.65
4. Box, Metal, M2A1			71	10725	6.65	23	3450	6.70	188	30000	6.25	128	20050	6.37
SubTotal AMMO Hardware			10349			3597			30120			19961		
Production Support Costs														
Production Engineering			975			155			450			430		
Quality Assurance			404			60			160			144		
Acceptance Testing			520			150			1010			890		
Interim Transportation			55			5			31			26		
SubTotal Prod. Support			1954			370			1651			1490		
COST - Nonrecurring														
First Article Testing			263						200					
Product Improvement			5068											
Government Furnished Material			30			12			70			54		
Energetics Explosives Components			1999											
SubTotal COST-Nonrecurring			7360			12			270			54		
TOTAL			19663			3979			32041			21505		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: FUZE ARTY ELEC TIME M767 (E61200)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
M767										
1. Load, Assemble, and Pack										
FY98	Bulova	C/FP	TACOM-ARDEC	Sep-98	Mar-99	21040	7.40	Yes		
FY99	Bulova	C/FP	TACOM-ARDEC	Feb-99	Sep-99	17256	7.50	Yes		
2. Fuze Metal Parts										
FY98	Bulova	C/FP	TACOM-ARDEC	May-98	Oct-98	21040	125.00	Yes		
FY99	Bulova	C/FP	TACOM-ARDEC	Feb-99	Jun-00	17256	129.89	Yes		
M767A1										
1. Load, Assemble, and Pack										
FY98	Unknown	C/FP	TACOM-ARDEC	Mar-00	Feb-01	62000	7.40	Yes		
FY99	Unknown	C/FP	TACOM-ARDEC	Mar-00	Apr-99	9952	7.50	Yes		
FY00	Unknown	C/FP	TACOM-ARDEC	Mar-00	Jul-01	232368	7.56	Yes		
FY01	Unknown	C/FP	TACOM-ARDEC	Mar-00	Aug-02	157616	7.73	Yes		
2. Fuze Metal Parts										
FY98	Bulova	CPIF	TACOM-ARDEC	Aug-98	Jul-00	62000	113.43	No	Dec99	
FY99	Bulova	C/FP	TACOM-ARDEC	Feb-99	Feb-99	9952	113.43	No	Dec99	
FY00	Unknown	C/FP	TACOM-ARDEC	Mar-00	Apr-01	232368	121.25	No	Dec99	
FY01		C/FP	TACOM-ARDEC	Mar-00	Apr-02	157616	118.00	No	Dec99	

REMARKS:

Load, Assemble, and Pack unit cost does not include Comp A5 Explosive Powder. Comp A5 is a GFM and is accounted for in Exhibit P-5. The work for Load, Assemble, and Pack, may be included within the Fuze Metal Parts Contract. It is anticipated that a single contract will be competitively awarded for the FY00 Quantity, with priced option quantities to satisfy the FY01 through FY05 Army and USMC buys. Based on past experience, the production learning curve should yield a reduction in production unit cost.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: FUZE MULTI OPTION (ER8017)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty				2	45	222	294	314	321	342		1540
Gross Cost	0.0	0.0	0.0	1.5	14.1	45.9	53.3	53.9	54.0	56.4		279.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	1.5	14.1	45.9	53.3	53.9	54.0	56.4		279.1
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	1.5	14.1	45.9	53.3	53.9	54.0	56.4		279.1
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: This budget line item supports procurement of the Multi Option Fuze for Artillery (MOFA). The MOFA is compatible with all current bulk-filled bursting field artillery ammunition fired in 105mm and 155mm cannon systems including M109A6 (Paladin), M198, XM777 Lightweight 155, and XM2001 Crusader. MOFA provides proximity, precision time, delay and impact functions in a single fuze. The inductive fuze set feature optimizes MOFA for use with automated ammunition handling equipment. MOFA combines proven subassemblies such as the safe and arm device with modern reserve batteries and Monolithic Millimeter/Microwave Integrated Circuit technology to affordably achieve enhanced performance, producibility and safety.

JUSTIFICATION: Expeditious procurement of MOFA is essential to meet the Crusader field artillery system development schedule. This procurement will support Crusader testing, training and will begin establishing required war reserve stockpiles.

ACQUISITION MANAGER: PEO GROUND COMBAT AND SUPPORT SYSTEMS

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: FUZE MULTI OPTION (ER8017)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE													
XM782 Complete Fuze					1455	2	728	12390	45	275	43096	222	194
COMP A-5 (Bulk Explosive, lbs.)					1		8	16	2	8	79	10	8
M2A1 Ammo Cans					2		8	45	6	8	222	28	8
SubTotal AMMO Hardware					1458			12451			43397		
Production Support Costs													
Production Engineering					50			400			500		
Quality Assurance								200			200		
Acceptance Testing											1500		
Interim Transportation					2			10			20		
SubTotal Prod. Support					52			610			2220		
Costs - Nonrecurring													
First Article Testing								1000					
Fielding											300		
SubTotal Costs-Nonrecurring								1000			300		
TOTAL					1510	2	757	14061	45	317	45917	222	210

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: FUZE MULTI OPTION (ER8017)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
AMMUNITION HARDWARE										
XM782 Complete Fuze										
FY 99	Alliant Tech., Hopkins, MN	SS/FFP	Picatinny Arsenal, NJ	Sep-99	Nov-00	2	728	No	Sep-99	Sep 99
FY 00	Alliant Tech., Hopkins, MN	SS/FFP	Picatinny Arsenal, NJ	Jan-00	Jan-01	45	275	No	Sep-99	Sep 99
FY 01	TBS	C/FFP	Picatinny Arsenal, NJ	Jan-01	Jan-02	222	194	No	Sep-99	Oct 00
COMP A-5 (Bulk Explosive, lbs.)										
FY 99	TBS	C/FFP	Rock Island, IL				8	Yes	N/A	
FY 00	TBS	C/FFP	Rock Island, IL			2	8	Yes	N/A	
FY 01	TBS	C/FFP	Rock Island, IL			10	8	Yes	N/A	
M2A1 Ammo Cans										
FY 99	TBS	C/FFP	Rock Island, IL				8	Yes	N/A	
FY 00	TBS	C/FFP	Rock Island, IL			6	8	Yes	N/A	
FY 01	TBS	C/FFP	Rock Island, IL			28	8	Yes	N/A	

REMARKS: First two fuze buys will be sole source to the development contractor. Starting with FY01 buys will be based on a competitive contract. Comp A-5 Explosive and M2A1 Ammo Cans will be purchased through IOC at Rock Island Arsenal, IL and provided GFM to the Contractor.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: FUZE MULTI OPTION (ER8017)												Date: February 1999												
COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00												L A T E R
							Calendar Year 99												Calendar Year 00												
							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	
XM782 Complete Fuze																															
	1	FY 99	A	2	0	2																							2		
	1	FY 00	A	45	0	45																							45		
	2	FY 01	A	222	0	222																							222		

MFR	NAME / LOCATION	MIN.	1-8-5	MAX.	REACHED D +	MFR Number	ADMIN LEAD TIME		MFR	TOTAL	REMARKS
							Prior 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.	
1	Alliant Tech., Hopkins, MN	2000	4000	10000		1	INITIAL	0	12	14	
							REORDER	3	3	13	16
2	TBS	12500	25000	62500		2	INITIAL	6	3	13	16
							REORDER	3	3	12	15
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				
							INITIAL				
							REORDER				

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

FUZE MULTI OPTION (ER8017)

Date:

February 1999

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 03												Fiscal Year 04												L A T E R
							Calendar Year 03						Calendar Year 04						Calendar Year 04												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
XM782 Complete Fuze																															
	1	FY 99	A	2	2																										
	1	FY 00	A	45	45																										
	2	FY 01	A	222	148	74	23	25	26																						

OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
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MFR	NAME / LOCATION	PRODUCTION RATES			REACHED D +	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS	
		MIN.	1-8-5	MAX.			Prior 1 Oct.	After 1 Oct.				
1	Alliant Tech., Hopkins, MN	2000	4000	10000		1	INITIAL	0	12	14	26	
							REORDER	3	3	13	16	
2	TBS	12500	25000	62500		2	INITIAL	6	3	13	16	
							REORDER	3	3	12	15	
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

MINE, TRAINING, ALL TYPES (EA0800)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	45.7	1.9	0.0	1.0	8.1	4.0	5.7	0.0	0.0	0.0	0.0	66.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	45.7	1.9	0.0	1.0	8.1	4.0	5.7	0.0	0.0	0.0	0.0	66.3
Initial Spares												
Total Proc Cost	45.7	1.9	0.0	1.0	8.1	4.0	5.7	0.0	0.0	0.0	0.0	66.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes Mines, Training, All Types (EA0800).

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: MINE, TRAINING, ALL TYPES (EA0800)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
Mine Practice M88 (VOLCANO) (E72194)									3840	6	640			
WAM Individual Trainer (E78103)									1840	235	8	1543	235	7
Modular Crowd Control Munition-Non Lethal					970	3	323	2387	10	239	2373	10	237	
TOTAL					970			8067			3916			

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition	P-1 Item Nomenclature: MINE AT M87 (VOLCANO) (E72195)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	170	4	6	4								184
Gross Cost	368.9	15.0	16.4	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	412.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	368.9	15.0	16.4	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	412.2
Initial Spares												
Total Proc Cost	368.9	15.0	16.4	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	412.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This canister will be loaded with six improved sensor anti-tank (AT) mines. This canister is designed for quick connect/disconnect to aid loading/unloading and is expendable after use. These mines will be deployed by the Volcano M139 Mine Dispenser to permit quick emplacement of a minefield (1000 meters by 100 meters) that will delay, disrupt and canalize enemy forces and restrict their use of critical routes or terrain. This system is critical for the United States Army to be able to conduct Full-Dimensional Operations. This item is Code A, approved for service use. The date for transition to the SMCA has not been determined.

JUSTIFICATION:

The Volcano system is a key component of the Army landmine program. This system will replace the use of hand emplaced conventional minefields, thereby reducing the exposure of personnel to hostile fire.

Type Classification Date M87 Standard - January 1989
 M87A1 LRIP - March 1994: Standard - September 1994

Acquisition Manager: Project Manager for Mines, Countermine and Demolitions (PM-MCD)

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: MINE AT M87 (VOLCANO) (E72195)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$
HARDWARE														
LAP (M87A1)			4315	6040	714	2359	3720	634						
Lone Star AAP, Texarkana, TX														
MSEP Electronic Lens			9493	36800	258	6395	23240	275						
Alliant Techsystems, Edina, MN														
Coil & Strap Assembly			333	2540	131	515	3930	131						
S&K Inc, Ronan, MT														
Metal Parts Sets			115	1045	110	865	3930	220						
JTM Inc, Amarillo TX														
AT S&A Assembly			660	21535	31	767	24330	32						
Action Mfg, Philadelphia, PA														
Miscellaneous			48			45								
SUBTOTAL			14964			10946								
PRODUCTION SUPPORT														
PRODUCTION ENGINEERING			899			692								
QUALITY ASSURANCE			280			220								
LOT ACCEPTANCE TESTING			214			108								
SUBTOTAL			1393			1020								
TOTAL			16357	6040	2708	11966	3720	3217						

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: MINE AT M87 (VOLCANO) (E72195)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
LAP (M87A1)										
FY 98	Day&Zimmerman (Lone Star AAP, Texarkana, TX	SS/CPIF	IOC	Jun-98	Jun-99	6040	714	Yes		
FY 99		SS/CPIF	IOC	Apr-99	Sep-00	3720	634			
MSEP Electronic Lens										
FY 98	Alliant Techsystems, Edina, MN	SS/FP	ARDEC	Jun-98	Jun-99	36800	258	Yes		
FY 99		Option	ARDEC	Mar-99	Mar-00	23240	275			
Coil & Strap Assembly										
FY 98	S&K Electronics Inc, Ronan, MT Triton, Easton, PA	Option	ARDEC	Jul-98	Jan-99	2540	131	Yes		
FY 99		SS/FP	ARDEC	Mar-99	Mar-00	3930	131			
Metal Parts Sets										
FY 98	JTM Inc, Amarillo, TX	Option	ARDEC	Jul-98	Sep-98	1045	110	Yes		
FY 99		Option	ARDEC	Mar-99	Dec-99	3930	220			
AT S&A Assembly										
FY 98	Action Mfg., Philadelphia, PA	Option	IOC	Jun-98	Sep-99	21535	31	Yes		
FY 99		TBS	C/FP	IOC	Mar-99	Mar-00	24330	32		

REMARKS: The Modified System Contract includes the anti-tank electronics, bore rider pin release mechanism, third party LAP contract and third party lot acceptance testing.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: WIDE AREA MUNITIONS (E78100)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	107	70	74	65	79	218	985	1067	1091	1118	29117	33991
Gross Cost	14.6	10.0	14.7	9.6	10.4	23.3	56.4	57.0	56.9	56.8	1398.0	1707.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	14.6	10.0	14.7	9.6	10.4	23.3	56.4	57.0	56.9	56.8	1398.0	1707.7
Initial Spares												
Total Proc Cost	14.6	10.0	14.7	9.6	10.4	23.3	56.4	57.0	56.9	56.8	1398.0	1707.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 The M93 Wide Area Munition is a first generation smart munition. It weighs 35 pounds and can be transported by a single soldier. It has the capability to recognize armor and heavy truck targets and to autonomously aim and launch its submunition to an effective radius of 100 meters. The M93 is designed for command control of the Arm/Destruct functions.

JUSTIFICATION:
 The M93 Wide Area Munition supports high mobility/offensive operations. Its design for flexible/rapid deployment combined with cost effective logistics and a self covering minefield capability provides increased performance and lethality over current mines in inventory. The FY00/FY01 procurements are required to build war reserve inventory in support of Department of Defense guidance.

Type Classification Date: June 1996-Low Rate Initial Production (LRIP)

Type Classification Date: April 1999 -Standard (Proposed)

Acquisition Manager: Project Manager for Mines, Countermines and Demolition (PM-MCD)

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: WIDE AREA MUNITIONS (E78100)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$
HARDWARE														
1. Load, Assemble and Pack - Wide Area Munition - Complete			8666	74	117108	8006	65	123169	9291	79	117608	20871	218	95739
2. Misc			70			52			57			125		
SUBTOTAL			8736			8058			9348			20996		
Production Support Costs														
Production Engineering			600			790			442			536		
Quality Assurance			300			206			221			215		
OGA Support			400			104			111			108		
SUBTOTAL			1300			1100			774			859		
Non-Recurring Support														
Producibility			2780			375			200			1060		
Engineering Changes						65			65			414		
Production Qualification Test			1569											
Contractor Engineering Support			360											
SUBTOTAL			4709			440			265			1474		
TOTAL			14745	74	199257	9598	65	147662	10387	79	131481	23329	218	107014

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: WIDE AREA MUNITIONS (E78100)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
HARDWARE										
1. Load, Assemble and Pack - Wide Area Munition FY 98	Textron Defense Systems Wilmington, MA	Mod	ARDEC	Dec-97	Sep-99	74	117108	Yes		
FY 99	Textron Defense Systems Wilmington, MA	Mod	ARDEC	May-99	Dec-99	65	123169	Yes		
FY 00	Textron Defense Systems Wilmington, MA	Mod	ARDEC	Dec-99	Dec-00	79	117608	Yes		
FY 01	Textron Defense Systems Wilmington, MA	SS/FP	ARDEC	Dec-00	Jul-01	218	95739	Yes		

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: WIDE AREA MUNITIONS (E78100)													Date: February 1999																	
COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT 1998	BAL DUE AS OF 1 OCT 1998	Fiscal Year 99												Fiscal Year 00												LATER						
							Calendar Year 99												Calendar Year 00																		
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP							
1. LAP (Wide Area Munition)																																					
Textron Defense Systems	1	FY 97P	A	177	0	177					10	15	15	30	30	30	30	17																			
Textron Defense Systems	1	FY 98	A	74	0	74												13	30	31																	
Textron Defense Systems	1	FY 99	A	65	0	65								A										15	15	15	10	10									
Textron Defense Systems	1	FY 00	A	79	0	79																	A												79		
Textron Defense Systems	1	FY 01	A	218	0	218																													218		

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

BUNKER DEFEATING MUNITION (TACTICAL) (E88401)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	3227	1242	943	1219								6631
Gross Cost	21.6	10.0	7.7	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	21.6	9.9	7.7	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.2
Initial Spares												
Total Proc Cost	21.6	9.9	7.7	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The Bunker Defeat Munition Shoulder-Launched Multi-purpose Assault Weapon - Disposable (SMAW-D) is a stand-alone, single shot, disposable munition which is used to defeat earth and timber field fortifications (bunkers). It also defeats light armored vehicles and breaches masonry walls. The need for the BDM SMAW-D was identified during operations Urgent Fury, Just Cause and Desert Shield/Storm. Other systems available (M136, AT4 and the M72 LAW) are ineffective against bunkers. The BDM is light-weight (15.7 lbs.), man-portable and air deployable. The BDM will be used by contingency forces. This item is Code B, not approved for service use.

JUSTIFICATION:

Procurement supports contingency forces only.

Type Classified (TC) Generic August 1993 & TC Limited Procurement September 1994

Acquisition Manager: TACOM-ARDEC, Picatinny, N.J.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: BUNKER DEFEATING MUNITION (TACTICAL) (E88401)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
AMMUNITION HARDWARE														
1. Complete Round		B	6501	943	6894.27	8400	1219	6891.00						
2. Field Handling System			133	41	3243.46	192	53	3629.00						
SubTotal AMMO Hardware			6634			8592								
Production Support Costs														
Production Engineering			482			778								
Quality Assurance			99			119								
Acceptance Testing			448			448								
Interim Transportation			35			35								
SubTotal Prod. Support			1064			1380								
COST - Nonrecurring														
First Article Testing														
Value Engineering														
Product Improvement														
Government Furnished Material														
SubTotal COST-Nonrecurring														
TOTAL			7698			9972								

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: BUNKER DEFEATING MUNITION (TACTICAL) (E88401)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. COMPLETE ROUND										
FY 97	TALLEY, MESA, AZ	SS/FP	TACOM-ARDEC	Aug-97	Dec-98	1242	6604.67			
FY 98	TALLEY, MESA, AZ	Option	TACOM-ARDEC	Mar-98	Sep-00	943	6894.27	Yes	No	
FY 99	TALLEY, MESA, AZ	Option	TACOM-ARDEC	Mar-99	Sep-99	1219	6891.00			
2. FIELD HANDLING SYTEM										
FY 97	TALLEY, MESA, AZ	SS/FP	TACOM-ARDEC	Aug-97	Dec-98	54	3666.67			
FY 98	TALLEY, MESA, AZ	Option	TACOM-ARDEC	Mar-98	Sep-00	41	3243.46	Yes	No	
FY 99	TALLEY, MESA, AZ	Option	TACOM-ARDEC	Mar-99	Sep-99	53	3629.00			

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

ROCKET, HYDRA 70, ALL TYPES (E37300)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	783.4	27.3	36.4	125.7	144.8	151.4	136.3	142.9	143.1	143.7	1292.9	3127.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	783.4	27.3	36.4	125.7	144.8	151.4	136.3	142.9	143.1	143.7	1292.9	3127.9
Initial Spares												
Total Proc Cost	783.4	27.3	36.4	125.7	144.8	151.4	136.3	142.9	143.1	143.7	1292.9	3127.9
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes Rocket HYDRA 70 ALL TYPES

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: ROCKET, HYDRA 70, ALL TYPES (E37300)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
ROCKET HYDRA 70 MPSM PRAC M267						37970	46	825	35733	44	812	31662	37	856
ROCKET HYDRA 70 HE/PD M151/M423						12023	17	707	37429	52	720	36194	50	724
ROCKET HYDRA 70 SIG PRAC M274			36431	64	569	75707	154	492	71598	149	481	83544	171	489
TOTAL			36431			125700			144760			151400		

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: ROCKET HYDRA 70 MPSM PRAC M267 (E37334)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	250			46	44	37	37	37	37	37	333	858
Gross Cost	172.8	0.0	0.0	38.0	35.7	31.7	31.5	32.0	32.6	33.3	299.3	706.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	172.8	0.0	0.0	38.0	35.7	31.7	31.5	32.0	32.6	33.3	299.3	706.9
Initial Spares												
Total Proc Cost	172.8	0.0	0.0	38.0	35.7	31.7	31.5	32.0	32.6	33.3	299.3	706.9
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The HYDRA 70 Weapon System is a family of aerial rockets used by Army aircraft (Apache, Kiowa Warrior, and Cobra) against area targets such as personnel, air defense systems, and materiel. The M267 Multi-purpose Submunition (MPSM) practice round is identical in operation to the M261 tactical warhead except that it has three M75 practice submunitions, with a flash powder smoke signature, that takes the place of the nine M73 submunitions. Six inert submunitions are used to complete the weight and balance requirements. The M267 uses the M439 remote fuze, is mated to the MK66 Mod 3 rocket motor with electromagnetic radiation protection, and is required to train with the fire control and rocket management systems on the Cobra and Apache attack helicopters. This item is Code A, approved for service use.

JUSTIFICATION:

This is a training unique item; not used in combat. FY00/FY01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals. The M267 MPSM Practice round provides a cleaner, more effective rocket with which to train pilots.

TYPE CLASSIFICATION DATE: 1982

ACQUISITION MANAGER: PM Hydra, Rock Island, Ill.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: ROCKET HYDRA 70 MPSM PRAC M267 (E37334)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
AMMUNITION HARDWARE														
Rocket					35958	46	782	34604	44	786	29571	37	799	
SubTotal AMMO Hardware					35958			34604			29571			
Production Support Costs														
Production Engineering					1399			1129			954			
SubTotal Prod. Support					1399			1129			954			
COST - Nonrecurring														
Product Improvement					613						1137			
SubTotal COST-Nonrecurring					613						1137			
TOTAL					37970		825	35733		812	31662		856	

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: ROCKET HYDRA 70 MPSM PRAC M267 (E37334)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY99 COMPLETE ROUND	UNKNOWN	C/FP	IOC	Apr-99	Feb-01	46	782	Y		Oct-98
FY00 COMPLETE ROUND	UNKNOWN	FFP	IOC	Apr-00	Feb-02	44	786	Y		Oct-98
FY01 COMPLETE ROUND	UNKNOWN	FFP	IOC	Apr-01	Feb-03	37	799	Y		Oct-98

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: ROCKET HYDRA 70 HE/PD M151/M423 (E37335)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	211			17	52	50	34	34	34	34	306	772
Gross Cost	61.3	0.0	0.0	12.0	37.4	36.2	25.5	26.1	26.5	27.0	242.8	494.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	61.3	0.0	0.0	12.0	37.4	36.2	25.5	26.1	26.5	27.0	242.8	494.8
Initial Spares												
Total Proc Cost	61.3	0.0	0.0	12.0	37.4	36.2	25.5	26.1	26.5	27.0	242.8	494.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The HYDRA 70 Weapon System is a family of aerial rockets used by the Army aircraft (Apache, Kiowa Warrior, and Cobras) against area targets such as personnel, air defense systems, and materiel. The M151 HEPD is a unitary fragmenting 10 lb anti-personnel warhead with the M423 Point Detonating Fuze. The warhead consists of two main parts, the nose and the base, which is fabricated using nodular pearlitic malleable or ferritic malleable cast iron. The nose end of the warhead is threaded to receive the M423 fuze and is loaded with 2.3 lbs of Composition B4 explosive. The base section is fabricated from steel or cast iron and is threaded for attachment to the MK66 rocket motor. Upon detonation, the warhead fragments into thousands of small, high velocity fragments.

JUSTIFICATION:

This is a war reserve item; used only in combat. The FY00/FY01 procurements build a war reserve inventory in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE:

26 February 1982

ACQUISITION MANAGER: PM Hydra, Rock Island, Ill.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: ROCKET HYDRA 70 HE/PD M151/M423 (E37335)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
AMMUNITION HARDWARE														
Rocket					10293	17	605	31684	52	609	30973	50	619	
SubTotal AMMO Hardware					10293			31684			30973			
Production Support Costs														
Production Engineering					516			1560			2514			
SubTotal Prod. Support					516			1560			2514			
COST - Nonrecurring														
Product Improvement					1214			4185			2707			
SubTotal COST-Nonrecurring					1214			4185			2707			
TOTAL					12023		707	37429		720	36194		724	

Exhibit P-5a, Budget Procurement History and Planning

Date:
FEBRUARY 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: ROCKET HYDRA 70 HE/PD M151/M423 (E37335)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY99 COMPLETE ROUND	UNKNOWN	C/FP	IOC	Apr-99	Feb-01	17	605	Y		Oct-98
FY00 COMPLETE ROUND	UNKNOWN	OPTION	IOC	Apr-00	Feb-02	52	609	Y		Oct-98
FY01 COMPLETE ROUND	UNKNOWN	OPTION	IOC	Apr-01	Feb-03	50	619	Y		Oct-98

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: ROCKET HYDRA 70 SIG PRAC M274 (E37337)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	1155		64	154	149	171	160	169	164	160	1440	3786
Gross Cost	393.4	0.0	36.4	75.7	71.6	83.5	79.3	84.8	84.1	83.4	750.9	1743.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	393.4	0.0	36.4	75.7	71.6	83.5	79.3	84.8	84.1	83.4	750.9	1743.1
Initial Spares												
Total Proc Cost	393.4	0.0	36.4	75.7	71.6	83.5	79.3	84.8	84.1	83.4	750.9	1743.1
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 The HYDRA 70 Weapon System is a family of aerial rockets used by Army aircraft (Apache, Kiowa Warrior, and Cobra) against area targets such as personnel, air defense systems, and materiel. The M274 warhead is a smoke/flash signature practice warhead used for pilot/gunner training missions and consists of a cast iron warhead modified with vent holes, an aluminum nose cap with firing pin, a M423 fuze safe and arming device, and a smoke/flash cartridge containing a mixture of potassium perchlorate and aluminum powder. The M274 with the new MK66 Mod 3 rocket motor with electromagnetic radiation protection can be fired by all aircraft. It is a key rocket due to its low cost, simple and reliable operation, day and night signature for scoring pilot proficiency, and non-hazardous dud feature which enables usage on new multipurpose range complexed. This item is Code A, approved for service use.

JUSTIFICATION:
 This is a training unique item; not used in combat. Each pilot must fire live rockets to acquire and maintain attack helicopter gunnery skills. FY00/FY01 procurements support all training schedules, initial qualification training for aviators, and builds a depot level in accordance with the Army's procurement goals. The M274 Signature Practice rocket is the preferred training munition at all ranges. The M274 Signature Practice rocket is safer to use, is cheaper, and has less of an environmental impact than high explosive rockets. At the same time, it allows peacetime training with rockets compatible with the new sterile, instrumented training ranges equipped with advanced sensors.

TYPE CLASSIFICATION DATE: 1986
ACQUISITION MANAGER: PM Hydra, Rock Island, Ill.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: ROCKET HYDRA 70 SIG PRAC M274 (E37337)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
AMMUNITION HARDWARE														
Rocket														
Load Assemble Pack														
			30965	64	484	66981	154	435	65211	149	438	76172	171	445
SubTotal AMMO Hardware			30965			66981			65211			76172		
Production Support Costs														
Production Engineering														
			729			4681			3836			4415		
Quality Assurance														
			36											
Acceptance Testing														
			329											
Interim Transportation														
			109											
Industrial Stock Support														
			1217											
CAWCF Gain/Loss Surcharge														
			3046											
SubTotal Prod. Support			5466			4681			3836			4415		
COST - Nonrecurring														
Product Improvement														
						4045			2551			2957		
SubTotal COST-Nonrecurring						4045			2551			2957		
TOTAL			36431		569	75707		492	71598		481	83544		489

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: ROCKET HYDRA 70 SIG PRAC M274 (E37337)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY98 COMPLETE ROUND	General Dynamics, VT	FFP	IOC	Aug-98	Nov-98	64	484			
FY99 COMPLETE ROUND	General Dynamics, VT	FFP	IOC	Dec-98	Dec-99	154	435	Y		Oct-98
FY00 COMPLETE ROUND	UNKNOWN	FFP	IOC	Apr-00	Feb-02	149	438	Y		Oct-98
FY01 COMPLETE ROUND	UNKNOWN	FFP	IOC	Apr-01	Feb-03	171	445	Y		Oct-98

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

DEMOLITION MUNITIONS, ALL TYPES (E55400)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	311.0	16.4	9.9	8.8	11.2	14.7	12.9	14.0	35.2	26.3	0.0	459.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	311.0	16.4	9.9	8.8	11.2	14.7	12.9	14.0	34.6	25.8	0.0	459.3
Initial Spares												
Total Proc Cost	311.0	16.4	9.9	8.8	11.2	14.7	12.9	14.0	34.6	25.8	0.0	459.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes Demolition Munitions ALL TYPES

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: DEMOLITION MUNITIONS, ALL TYPES (E55400)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
CAP BLASTING NON-ELEC M7		1000	202	4.95				493	97	5.08			
CORD DETONATING TYPE 1		1652	15018	0.11	338	3047	0.11	17			453	4224	0.11
CHARGE DEMO SHAPED CLIPPED M221		1434						1594	184	8.66	1545	184	8.40
IGNITER ELECTRIC MATCH M79											122	34	3.59
ANTI-PERS OBSTACLE BREACHING								5668	533	10.63	6580	588	11.19
FUSE BLASTING TIME M700		400	2664	0.15	189	1355	0.14	449	3178	0.14	322	2225	0.14
CUTTER CTG ACTUATED 2 SEC DELAY M21		674	10	67.40	1113	10	111.30						
CAP BLASTING NON-ELEC, W/30 FT SHOCK					1223	304	4.02				732	156	4.69
CAP BLASTING NON-ELEC, W/500 FT					301	15	20.07	98	5	19.60	749	39	19.21
CAP BLASTING NON-ELEC, W/1000 FT					1311	45	29.13	136	3	45.33	693	23	30.13
CAP BLASTING NON-ELEC, DELAY, M14		1602	166	9.65				793	101	7.85	999	131	7.63
IGNITER, TIME FUZE AND SHOCK TUBE M81		1291	414	3.12				514	159	3.23	638	198	3.22
CAP, BLASTING INERT NON-ELEC W/500 FT		165			268	16	16.75						
CAP, BLASTING INERT NON-ELECT DELAY		100	11	9.09	265	35	7.57						
CAP, BLASTING INERT NON-ELECT W/70FT		42	5	8.40	335	59	5.68						
CAP BLASTING NON-ELECTRIC 10 FT SHOCK TU					383	90	4.26	274	64	4.28	280	67	4.18
CAP BLASTING NON ELECTRIC 100 FT SHOCK T					869								
CAP BLASTING NON ELECTRIC 20 MIN DELAY X					2180	156	13.97	1210	91	13.30	1557	120	12.98
FIGHTING POSITION EXCAVATOR		1625	756	2.15									
TOTAL		9985			8775			11246			14670		

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: ANTI-PERS OBSTACLE BREACHING SYSTEM (E72800)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty					533	588						1121
Gross Cost	0.0	0.0	0.0	0.0	5.7	6.6	0.0	0.0	0.0	0.0	0.0	12.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	5.7	6.6	0.0	0.0	0.0	0.0	0.0	12.2
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	5.7	6.6	0.0	0.0	0.0	0.0	0.0	12.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 The EX7 Mod1 Mine Clearing System, Anti-Personnel Obstacle Breaching System (APOBS) consists of a line charge assembly and a fuze/rocket motor assembly. This item is a lightweight self-contained, one-shot expendable system which is transported and deployed by a two-man team. APOBS uses the EX126 Mod 0 rocket motor to propel a line charge over the obstacle. Employed in combat operations to breach a lane through wire and anti-personnel mine obstacles.

JUSTIFICATION:
 The APOBS will replace the Bangalore Torpedo.

Type Classification Date: (Proposed) January 1999

Acquisition Manager: Project Manager for Mines, Countermine and Demolition (PM-MCD)

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: ANTI-PERS OBSTACLE BREACHING SYSTEM (E72800)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$
HARDWARE														
1. APOBS Complete System														
									4798	533	9002	5585	588	9498
SUBTOTAL									4798			5585		
PRODUCTION SUPPORT														
PRODUCTION ENGINEERING														
QUALITY ASSURANCE														
LOT ACCEPTANCE TESTING														
PROJECT MANAGEMENT														
CONTRACTOR SUPPORT														
									243			359		
									101			141		
									421			367		
									89			74		
									16			54		
SUBTOTAL									870			995		
TOTAL														
									5668	533	10634	6580	588	11190

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: ANTI-PERS OBSTACLE BREACHING SYSTEM (E72800)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. APOBS Complete System										
FY 00	TBS	Option/FFP	Quantico, VA	Dec-99	Apr-01	533	9002	Yes		Apr-98
FY 01	TBS	Option/FFP	Quantico, VA	Dec-00	Apr-02	588	9498	Yes		Apr-98

REMARKS: USMC is the lead Service for APOBS procurement

FY 00 / 01 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: ANTI-PERS OBSTACLE BREACHING SYSTEM (E72800)													Date: February 1999											
COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. TO 1 OCT 1999	BAL DUE AS OF 1 OCT 1999	Fiscal Year 00												Fiscal Year 01												L A T E R
							Calendar Year 00												Calendar Year 01												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. APOBS Complete System																															
TBS	1	FY 00	A	533	0	533																					270				
TBS	1	FY 01	A	588	0	588																					588				
TBS	1	FY 98P	M	234	0	234							78	78	78																
TBS	1	FY 99	M	744	0	744									83	83	83	83	83	83	83	83	83	80							
TBS	1	FY 00	M	840	0	840																			70	70	70	70	70	70	420
TBS	1	FY 01	M	779	0	779																						779			
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MFR	PRODUCTION RATES				REACHED	MFR Number	ADMIN LEAD TIME		MFR	TOTAL	REMARKS																				
	NAME / LOCATION	MIN.	1-8-5	MAX.	D +		Prior 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.	USMC is Lead Service for APOBS, initial contract award scheduled for Dec 98.																				
1	TBS	500	2000	5500		1	INITIAL	3	14	16	30																				
							REORDER	3	3	16	19																				
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

GRENADES, ALL TYPES (E34000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	568.0	4.1	14.1	21.3	11.4	21.2	24.5	20.2	23.1	19.6	0.0	727.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	568.0	4.1	14.1	21.3	11.4	21.2	24.5	20.2	23.1	19.6	0.0	727.5
Initial Spares												
Total Proc Cost	568.0	4.1	14.1	21.3	11.4	21.2	24.5	20.2	23.1	19.6	0.0	727.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes Grenades ALL TYPES

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: GRENADES, ALL TYPES (E34000)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
FUZE GRENADE HAND PRAC M228						1926	808	2.39	5913	2541	2.33	5023	2039	2.46
GRENADE HAND SMOKE GREEN M18						1887	40	47.30	79			1652	61	27.05
GRENADE HAND SMOKE YELLOW M18			2394	75	31.89	4328	130	33.27	1082	37	27.13	2773	104	26.61
GRENADE HAND SMOKE VIOLET M18			1342	42	31.90	2756	73	37.61	87					
GRENADE HAND SMOKE TNG M83			8712	225	38.70	8617	207	41.72	248			4841	203	23.79
BODY GRENADE HAND PRAC M69												61	11	5.62
GRENADE SMOKE SCREENING TNG M82						547	14	39.69	39					
GRENADE, LAUNCHER, SMK SCREENING, GRENADE, STUN			1636	28	58.43				2216	27	82.07	1970	27	72.96
GRENADE HAND FRAG DELAY M67						1261	15		1767	31	57.00	2373	47	48.67
TOTAL			14084			21322			11431			21193		

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: FUZE GRENADE HAND PRAC M228 (E31900)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	78367			808	2541	2039	2103	2087	2088	2096		92129
Gross Cost	76.1	0.0	0.0	1.9	5.9	5.0	5.1	5.2	5.3	5.4	0.0	109.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	76.1	0.0	0.0	1.9	5.9	5.0	5.1	5.2	5.3	5.4	0.0	109.9
Initial Spares												
Total Proc Cost	76.1	0.0	0.0	1.9	5.9	5.0	5.1	5.2	5.3	5.4	0.0	109.9
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M228 fuze is a pyrotechnic delay-igniting fuze used with the M69 delay practice hand grenade. It is used by the individual soldier for training purposes. This item is Code A, approved for service use. This item is procured at actual cost.

JUSTIFICATION:

This is a training unique item; not used in combat. FY00/FY01 procurements support annual peacetime training and build a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE:
1971

ACQUISITION MANAGER:
IOC, Rock Island, Ill

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: FUZE GRENADE HAND PRAC M228 (E31900)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Complete Round						1776	808	2.20	5646	2541	2.22	4606	2039	2.26
SubTotal AMMO Hardware						1776			5646			4606		
Production Support Costs														
Production Engineering						114			185			350		
Industrial Stock Support						36			82			67		
SubTotal Prod. Support						150			267			417		
TOTAL						1926		2.39	5913		2.33	5023		2.46

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: FUZE GRENADE HAND PRAC M228 (E31900)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Complete Round										
FY 99	TBS	C/FP	IOC	Aug-99	May-00	808	2.39	Y		May 99
FY 00	TBS	C/FP	IOC	Apr-00	Jan-01	2541	2.33	Y		Oct 99
FY 01	TBS	C/FP	IOC	Apr-01	Jan-02	2039	2.46	Y		Oct 00

REMARKS: TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: GRENADE HAND SMOKE TNG M83 (E69300)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	348	122	225	207		203	209	209	212	213		1948
Gross Cost	11.6	4.2	8.7	8.6	0.2	4.8	5.1	5.2	5.1	5.2	0.0	58.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	11.6	4.2	8.7	8.6	0.2	4.8	5.1	5.2	5.1	5.2	0.0	58.7
Initial Spares												
Total Proc Cost	11.6	4.2	8.7	8.6	0.2	4.8	5.1	5.2	5.1	5.2	0.0	58.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M83 hand grenade contains approximately 1 pound of environmentally acceptable smoke mixture. The smoke mixture is initiated by a pyrotechnic delay-igniting fuze. After initiation, there is a 3-second delay after which a dense smoke cloud is produced to conceal troop, vehicle, or other march movements. The M83 training grenade is deployed in a similar manner as the M8 series of service smoke grenades. It is used by the individual soldier in squad, company, and battalion units. This item is Code A, approved for service use. This item is procured at actual cost.

JUSTIFICATION:

This is a training unique item; not used in combat. This grenade is urgently needed to replace the current M8 HC filled munition with a training safe version to reduce the hazard of troop exposure carcinogenic HC smoke. FY01 procurement supports annual peacetime training and build a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE:
 1994

ACQUISITION MANAGER:
 IOC, Rock Island, Ill

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: GRENADE HAND SMOKE TNG M83 (E69300)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
AMMUNITION HARDWARE														
Load, Assemble, and Pack			7517	225	33.39									
Nitrocellulose WW GR D (LB)			1		4.04									
Complete Round						5908	207	28.61				4572	203	22.47
SubTotal AMMO Hardware			7518			5908						4572		
Production Support Costs														
Production Engineering			768			2590			248			203		
Quality Assurance			19											
Acceptance Testing			86											
Interim Transportation			54											
Industrial Stock Support			267			119						66		
SubTotal Prod. Support			1194			2709			248			269		
TOTAL			8712		38.70	8617		41.72	248			4841		23.79

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: GRENADE HAND SMOKE TNG M83 (E69300)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack FY 98	Pine Bluff Arsenal (PBA) Pine Bluff, AR	SS/FP	IOC	Apr-98	Apr-99	225	38.70			Jan 98
FY 99***	Pine Bluff Arsenal (PBA) Pine Bluff, AR	SS/FP	IOC	Apr-99	Apr-00	207	41.72	Yes		Jan 99
FY 01***	Pine Bluff Arsenal (PBA) Pine Bluff, AR	SS/FP	IOC	Apr-01	Apr-02	203	23.79	Yes		Oct 00
Nitrocellulose WW GR D (LB) FY 98	Alliant Tech (Radford AAP) Radford, VA	SS/FP	IOC	Jan-98	Mar-99	248	4.04			Oct 97

REMARKS: ***Complete Round

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

SIGNALS, ALL TYPES (E46900)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	325.3	1.3	7.7	12.9	9.8	13.7	12.3	12.6	14.7	13.2	0.0	423.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	325.3	1.3	7.7	12.9	9.8	13.7	12.3	12.6	14.7	13.2	0.0	423.5
Initial Spares												
Total Proc Cost	325.3	1.3	7.7	12.9	9.8	13.7	12.3	12.6	14.7	13.2	0.0	423.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes Signals, ALL TYPES.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: SIGNALS, ALL TYPES (E46900)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
SMOKE POT PRACTICE M8			5102	11	464	6879	15	459	5886	13	453	7208	15	481
SIGNAL KIT PERSONNEL DISTRESS RED FP												1315	26	51
SIGNAL SMOKE & ILLUM MK124 MOC 0						733	14	52	27					
SIGNAL ILLUM GND WS CLUSTER M159						957	23	42	78			1127	27	42
SIGNAL ILLUM GND WS PARA M127A1			1803	44	41	2092	52	40	2687	76	35	2400	67	36
SIGNAL ILLUM GRD GS CLUSTER M125A1									1057	30	35	1085	30	36
FLARE SURFACE TRIP M49 SERIES			781	26	30	2287	125	18	47			530	27	20
TOTAL			7686			12948			9782			13665		

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

SMOKE POT PRACTICE M8 (E62900)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	23		11	15	13	15	17	17	17	17		145
Gross Cost	9.1	0.0	5.1	6.9	5.9	7.2	6.9	7.0	7.1	7.3	0.0	62.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	9.1	0.0	5.1	6.9	5.9	7.2	6.9	7.0	7.1	7.3	0.0	62.5
Initial Spares												
Total Proc Cost	9.1	0.0	5.1	6.9	5.9	7.2	6.9	7.0	7.1	7.3	0.0	62.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M8 Smoke Pot is a five-gallon metal pail containing about 25 pounds of environmentally acceptable smoke mixture. It is initiated by a pyrotechnic delay igniting fuze. After ignition, about a 25 second delay, a dense smoke cloud is produced for screening purposes to conceal troop, vehicle, or other march movements. It is deployed in a similar manner as the service smoke pots, M4 series and M5. It is used by the individual soldier in squad, company and batallion units. This item is code B, not approved for service use. This item will be procured as actual cost beginning in FY99.

JUSTIFICATION:

This training pot is urgently needed to replace the current M4A2 HC filled munition with a training munition with a reduced hazard for troops exposed during training. This is a Materiel Change program number 1-88-09-7331.

ACQUISITION MANAGER: PM SMOKE

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: SMOKE POT PRACTICE M8 (E62900)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
AMMUNITION HARDWARE													
Load, Assemble, and Pack		1471	11444	134	2419	15499	156	1804	12652	143	2213	15474	143
Chemicals		1660	11921	134	2201	16750	131	1917	13179	145	2351	16119	146
Metal Parts		1551	11921	125	2056	16750	123	1748	13179	133	2174	16119	135
SubTotal AMMO Hardware		4682			6676			5469			6738		
Production Support Costs													
Production Engineering		129			169			188			193		
Quality Assurance		12											
Acceptance Testing		58			16			76			81		
Interim Transportation		23											
Industrial Stock Support		198			18			153			196		
CAWCF Gain/Loss Surcharge													
SubTotal Prod. Support		420			203			417			470		
COST - Nonrecurring													
SubTotal COST-Nonrecurring													
TOTAL		5102		428	6879			5886		459	7208		460

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: SMOKE POT PRACTICE M8 (E62900)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
LOAD, ASSEMBLE, AND PACK										
FY98	PINE BLUFF ARSENAL	SS/FP	CBDCOM	Jan-98	Oct-99	11444	134	Y		
FY99	PINE BLUFF ARSENAL	SS/FP	IOC	Jan-99	May-00	15499	156			
FY00	PINE BLUFF ARSENAL	SS/FP	IOC	Jan-00	May-01	12652	143			
FY01	PINE BLUFF ARSENAL	SS/FP	IOC	Jan-01	May-02	15474	143			
CHEMICALS										
FY98	UNKNOWN	C/FP	PINE BLUFF ARSENAL	Jul-98	Jul-99	11921	134			
FY99	UNKNOWN	C/FP	PINE BLUFF ARSENAL	Jul-99	Oct-00	16750	131			
FY00	UNKNOWN	C/FP	PINE BLUFF ARSENAL	Jul-00	Oct-01	13179	145			
FY01	UNKNOWN	C/FP	PINE BLUFF ARSENAL	Jul-01	Oct-02	16119	146			
METAL PARTS										
FY98	UNKNOWN	C/FP	PINE BLUFF ARSENAL	Jul-98	Jul-99	11921	125			
FY99	UNKNOWN	C/FP	PINE BLUFF ARSENAL	Jul-99	Oct-00	16750	123			
FY00	UNKNOWN	C/FP	PINE BLUFF ARSENAL	Jul-00	Oct-01	13179	133			
FY01	UNKNOWN	C/FP	PINE BLUFF ARSENAL	Jul-01	Oct-02	16119	135			

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

AMMO COMPONENTS, ALL TYPES (EB0016)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	761.1	1.2	3.1	7.2	6.9	6.8	6.9	7.0	7.1	7.3	0.0	814.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	761.1	1.2	3.1	7.2	6.9	6.8	6.9	7.0	7.1	7.3	0.0	814.6
Initial Spares												
Total Proc Cost	761.1	1.2	3.1	7.2	6.9	6.8	6.9	7.0	7.1	7.3	0.0	814.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes all ammo components/support items

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION /Ammunition / 41500684			P-1 Line Item Nomenclature: AMMO COMPONENTS, ALL TYPES			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
COMPONENTS FOR RENOVATION OF FIELD STOCK			2985			6217			5895			5824		
WEAPON COMP IN SPT OF PROOF/ACT TESING			95			1004			981			968		
TOTAL			3080			7221			6876			6792		

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

COMPONENTS FOR RENOVATION OF FIELD STOCK (EA0500)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	500.0	0.1	3.0	6.2	5.9	5.8	5.9	6.0	6.1	6.2	0.0	545.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	500.0	0.1	3.0	6.2	5.9	5.8	5.9	6.0	6.1	6.2	0.0	545.2
Initial Spares												
Total Proc Cost	500.0	0.1	3.0	6.2	5.9	5.8	5.9	6.0	6.1	6.2	0.0	545.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

These components are used to support the renovation of ammunition items currently in the Army inventory. All components are centrally managed and procured by the Industrial Operations Command. Items support worldwide ammunition requirements in order to maintain the inventory in a serviceable status ready for issue to the troops.

JUSTIFICATION:

The components are required to bring stocks that are no longer in an issuable condition back to an issuable condition. The alternative is to fill requirements with new procurement. It is much more cost effective to correct most stockpile deficiencies through renovation than through new procurement.

ACQUISITION MANAGER: IOC, Rock Island, Ill.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

ITEMS LESS THAN \$5 MILLION (EA0055)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	633.3	3.1	6.3	1.0	7.7	7.8	6.9	6.9	6.8	6.5	0.0	686.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	633.3	3.1	6.3	1.0	7.7	7.8	6.9	6.9	6.8	6.5	0.0	686.3
Initial Spares												
Total Proc Cost	633.3	3.1	6.3	1.0	7.7	7.8	6.9	6.9	6.8	6.5	0.0	686.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This budget line includes miscellaneous ammunition items under \$5 million.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: ITEMS LESS THAN \$5 MILLION (EA0055)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
CTG 12 GA CROWD DISPERSAL XM1013									955	155	6			
CTG 12 GA NON-LETHAL XM1012												950	147	6
CTG 10 GAUGE BLANK			28	49	1	34	18	2	27	16	2	95	96	1
CTG CAL .22 LR MATCH F/PISTOL			235	1805		176	1368					66	153	
CTG CAL .30 BLANK M1909			1920	2272					1093	3098		1101	2522	
RIOT CONTROL AGENT CS CAPSULE			596						15	19	1	20	24	1
USAMTU FT BENNING			842			355			352			346		
NEW EQUIPMENT TRAINING			273			181			91			90		
CTG MORTAR 60MM HE M49 SERIES			1074	1557	1	260								
FUZE ARTY MOUT MK399 MOD 1									197			197		
AMMUNITION PROGRAM SUPPORT									4929			4923		
CTG, MORTAR, 81MM HE M821			1304											
TOTAL			6272			1006			7659			7788		

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: AMMUNITION PECULIAR EQUIPMENT (EA0575)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	77.1	5.2	7.3	10.3	10.7	9.5	8.8	8.6	8.8	8.9	0.0	155.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	77.1	5.2	7.3	10.3	10.7	9.5	8.8	8.6	8.8	8.9	0.0	155.2
Initial Spares												
Total Proc Cost	77.1	5.2	7.3	10.3	10.7	9.5	8.8	8.6	8.8	8.9	0.0	155.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 Ammunition Peculiar Equipment (APE) is unique, low density equipment items specifically designed, fabricated, tested, procured, and adopted for use in ammunition depot operations in conventional and chemical ammunition. These depot operations involve maintenance, demilitarization, preservation/packaging, and surveillance functions on the ammunition item. APE is not stocked nor is it available from commercial sources. This equipment is different from production line plant equipment in that it disassembles ammunition items into components, usually for the removal of a hazardous component. APE is also designed to perform cleaning and renovation functions on ammunition subjected to deterioration effects (rust, corrosion, weathering, etc) during its storage life. APE supporting surveillance is keyed to stockpile sampling and funding tests of the items to assure readiness for combat or training. Demilitarization APE is similar somewhat to maintenance APE but must go further in disassembly to destroy hazardous components and reclaim salvageable parts or metals. APE is designed, developed, and fielded to support ammunition field service stocks that are currently on hand in the inventory control point and is used to restore these stocks to an issuance/serviceable condition.

JUSTIFICATION:
 The APE and replacement parts must be on-hand to perform any of the ammunition depot operations for conventional and chemical ammunition. The ammunition depot operations cannot be accomplished if the required APE is not supplied in a timely manner. The equipment is loaded to worldwide locations for the accomplishment of depot type operations based on the ammunition requirements. The equipment described herein is required to support the following ammunition programs; Integrated Conventional Ammunition Maintenance Plan (ICAMP), surveillance program for lethal chemical agents and munition; equipment for worldwide maintenance lines; equipment to support the toxic chemical maintenance facilities; Prepositioned Ships; and also to support Government-owned, contractor-operated plants as Government furnished equipment (GFE) in support of ammunition depot operations at those locations.

APE is centrally managed by HQ IOC.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: FIRST DESTINATION TRANSPORTATION (AMMO) (EA0550)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	713.7	5.3	4.5	6.2	5.3	5.2	5.2	5.3	5.4	5.5	0.0	761.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	713.7	5.3	4.5	6.2	5.3	5.2	5.2	5.3	5.4	5.5	0.0	761.6
Initial Spares												
Total Proc Cost	713.7	5.3	4.5	6.2	5.3	5.2	5.2	5.3	5.4	5.5	0.0	761.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

Transportation funds are required to support procurement and distribution of Army ammunition end items from manufacturing plants or assembly points; e.g., Army Ammunition Plants (AAP), to a CONUS depot, customer, other point of first acceptance into the Army supply system or to a port for transportation to a second destination; e.g., OCONUS customers. These funds directly support training and readiness requirements of soldiers in the field (CONUS and OCONUS) to include major OCONUS programs such as Europe and Korea training and repositioned war reserve requirements; war reserves support to allies (Korea and Thailand).

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support
 P-1 Item Nomenclature: INDUSTRIAL FACILITIES (EP1200)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	4685.7	49.7	32.9	50.5	46.1	48.0	67.0	72.1	73.5	75.0	0.0	5200.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	4685.7	49.7	32.9	50.5	46.1	48.0	67.0	72.1	73.5	75.0	0.0	5200.5
Initial Spares												
Total Proc Cost	4685.7	49.7	32.9	50.5	46.1	48.0	67.0	72.1	73.5	75.0	0.0	5200.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The Industrial Facilities (IF) budget request contains funding for correction of environmental deficiencies at existing facilities, design of future projects to meet peacetime or future requirements, replacement of obsolete or worn production equipment, and correction of infrastructure.

	<u>FY 98</u>	<u>FY 99</u>	<u>FY 00</u>	<u>FY 01</u>
Environmental	\$ 8.7	\$14.0	\$11.0	\$12.3
Production Support	<u>\$24.2</u>	<u>\$36.5</u>	<u>\$35.1</u>	<u>\$35.7</u>
T O T A L	\$32.9	\$50.5	\$46.1	\$48.0

JUSTIFICATION: Funds are used for the establishment, augmentation, and improvement of production capability for items procured under the ammunition appropriations. Funds also correct environmental problems which, if left unfunded, would result in costly fines and penalties against the Army.

Exhibit P-40C Budget Item Justification Sheet

Date
February 1999

Appropriation / Budget Activity/Serial No. P-1 Item Nomenclature
 PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support INDUSTRIAL FACILITIES (EP1200)

Program Elements for Code B Items Code Other Related Program Elements

<u>LOCATION</u>	<u>PROJECT TITLE</u>	<u>PROJECT</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
<u>PRODUCTION SUPPORT</u>						
HOLSTON ARMY AMMUNITION PLANT (AAP)	X-MAT Facility Initiatives	5XX1000			13682	2816
IOWA AAP	Production Support and Equipment Replacement (PSR)	5XX5333		2240	2595	2402
IOWA AAP	Replace Grade/Beams 3A, Yard L Docks	5002776			4038	
IOWA AAP	Contaminated Waste Processor (CWP)	5012949				4877
IOWA AAP	Install Steam Line to Line 3A from Main Heating Plant	5012998				3891
IOWA AAP	Replace Water Main, Line 2	5993323		807		
IOWA AAP	Renovate Buildings 100-101, Phase 2	5003333			1266	
IOWA AAP	Install 5 Dry-Type Sprinklers, Yard L	5003334			950	
IOWA AAP	Manufacturing Management System (MRP II)	5983339	3434			
IOWA AAP	Refurbish Mathes Lake Dam	5003349			214	
IOWA AAP	Install Air Conditioning for 120 Tank Load, Assemble and Pack (LAP)	5013381				1109
LAKE CITY AAP	Production Support and Equipment Replacement (PSR)	5XX5332	653	3687		
LAKE CITY AAP	Manhurin Loader Upgrade	5983330	2192			
LAKE CITY AAP	Caliber .50 Upgrade	5983331	1645			
LAKE CITY AAP	Stores, Tool/Gage and Machine Shop Consolidation	5993335		1860		
LONE STAR AAP	Production Support and Equipment Replacement (PSR)	5XX5316		1795	1653	1754
LONE STAR AAP	Consolidate Primer Production Area into Area P/Q	5003358			1006	
MILAN AAP	Production Support and Equipment Replacement (PSR)	5XX5317	151	2221	1967	2424
MILAN AAP	Manufacturing Management System (MRP II)	5983338	3559			
RADFORD AAP	Production Support and Equipment Replacement (PSR)	5XX5326	1221	3470	1608	2710
RADFORD AAP	Overhead Electrical Service	59X2783	1259	476		
RADFORD AAP	Dike Repairs	5012924				6381

Exhibit P-40C Budget Item Justification Sheet

Date

February 1999

Appropriation / Budget Activity/Serial No.

PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support

P-1 Item Nomenclature

INDUSTRIAL FACILITIES (EP1200)

Program Elements for Code B Items

Code

Other Related Program Elements

<u>LOCATION</u>	<u>PROJECT TITLE</u>	<u>PROJECT</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
<u>PRODUCTION SUPPORT (continued)</u>						
RADFORD AAP	Replace Raw Water Supply Line, Buildings 408-409	5993322		2084		
RADFORD AAP	Replace Natural Gas Lines	5993314		4782		
RIVERBANK AAP	Large Caliber Deep-Drawn Cartridge Cases	5983311	2864	3000		
SCRANTON AAP	Production Support and Equipment Replacement (PSR)	5XX5342		2195		1512
VARIOUS AAPs	Intrusion Detection Device	5983385	144			
VARIOUS AAPs	Engineering Design	5XX3046	5673	6740	4995	4676
PROVING GROUND MODERNIZATION	Production Support and Equipment Replacement (PSR)	5XX5060	1400	1200	1200	1200
	SUBTOTAL - PRODUCTION		24,195	36,557	35,174	35,752
<u>ENVIRONMENTAL</u>						
HOLSTON AAP	Production Support and Equipment Replacement (PSR)	5985328	136			
HOLSTON AAP	Plant-Wide Diking	5982923	3527			
HOLSTON AAP	Acid A Industrial Wastewater Equalization/Spill Ponds to Concrete Tanks	5992994		1846		

Exhibit P-40C Budget Item Justification Sheet

Date

February 1999

Appropriation / Budget Activity/Serial No.

PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support

P-1 Item Nomenclature

INDUSTRIAL FACILITIES (EP1200)

Program Elements for Code B Items

Code

Other Related Program Elements

<u>LOCATION</u>	<u>PROJECT TITLE</u>	<u>PROJECT</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
<u>ENVIRONMENTAL (continued)</u>						
IOWA AAP	Production Support and Equipment Replacement (PSR)	5XX5333	1426	1459		
IOWA AAP	Hazardous Waste/Material Process Facility	5992952		1873		
IOWA AAP	Pink Water Effluent, Building 2-05-1	5002997			1328	
IOWA AAP	Install Detonation Chamber/Molton Salt to Replace Open Burn/Open Detonation (OB/OD)	5993357		1792		
IOWA AAP	Sewer Rehabilitation Continuation	5003371			2043	
LAKE CITY AAP	Explosive Waste Incinerator	5983337	1543			
LAKE CITY AAP	Equipment Retrofit for Water-Based Mouth Waterproofing	5993355		3994		
LONE STAR AAP	Production Support and Equipment Replacement (PSR)	5XX5316	879		246	
LONE STAR AAP	Sanitary Sewer Collection System	5002955			1852	
MILAN AAP	Production Support and Equipment Replacement (PSR)	5XX5317	569	1116		
MILAN AAP	Upgrade Sewage Treatment Plant	5002943			3996	
RADFORD AAP	Production Support and Equipment Replacement (PSR)	5XX5326	478			
RADFORD AAP	Acid Wastewater Treatment Sludge Handling	5012894				7658
RADFORD AAP	Acid Sewer System Upgrade	5012925				4635
RADFORD AAP	Correct Defects in Equalization Tanks	5993313		1880		
SCRANTON AAP	Production Support and Equipment Replacement (PSR)	5XX5342	99			
SCRANTON AAP	Upgrade Plant Drainage System	5002986			1500	
SUBTOTAL - ENVIRONMENTAL			8,657	13,960	10,965	12,293
TOTAL INDUSTRIAL FACILITIES			32,852	50,517	46,139	48,045

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999								
2. PROJECT TITLE/TYPE Explosive Manufacturing Alternatives Team (XMAT) Facility Initiatives				3. END ITEM SUPPORTED MODEL Research Department Explosive (RDX)/High Melt Explosive (HMX)										
4. PROJECT NUMBER 5XX1000		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable			6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable									
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY									
A. CONSTRUCTION COST B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million) 1. 2. 3. SUBTOTAL EQUIPMENT COST C. EQUIPMENT INSTALLATION COST D. CONTRACTOR SUPPORT COST E. CORPS OF ENGINEERS SUPPORT COST F. OTHER IN-HOUSE SUPPORT COST TOTAL FACILITY PROJECT COST G. OTHER COSTS 1. FACILITY PROVE-OUT COST 2. MILITARY CONSTRUCTION APPN.			13682	2816	1. NAME <u>Holston Army Ammunition Plant</u> 2. LOCATION <u>Kingsport, Tennessee</u> 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>									
					I. RELATED PROJECTS									
					13682	2816	Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date	
					Not Applicable									
									J. PRINCIPAL MILESTONES					
					13682				MONTH & YEAR					
					2816				1. CONCEPT DESIGN COMPLETE <u>Not Applicable</u> 2. FINAL DESIGN COMPLETE <u>Not Applicable</u> 3. INITIAL/FINAL PROJECT AWARD <u>Not Applicable</u> 4. CONSTRUCTION COMPLETE <u>Not Applicable</u> 5. EQUIPMENT INSTALLATION COMPLETE <u>Not Applicable</u> 6. PROVE OUT BEGINS <u>Not Applicable</u> 7. PROVE OUT COMPLETE <u>Not Applicable</u>					
	NARRATIVE EXPLANATION													
<p>This project is required to assure necessary facilities are available at Holston Army Ammunition Plant to meet peacetime requirements for RDX/HMX based products at the best cost and quality, on time for all DOD customers. In addition, this strategy will result in having a capacity that meets replenishment requirements. This funding supports recent X-MAT competition.</p>														

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999
2. PROJECT TITLE/TYPE Infrastructure - Replace Grade/Beams 3A, Yard L Docks			3. END ITEM SUPPORTED MODEL 155mm/M795, 120mm Mortar; 40-pound Cratering Charge			
4. PROJECT NUMBER 5002776		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable		
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY	
A. CONSTRUCTION COST			3731		1. NAME Iowa Army Ammunition Plant	
					2. LOCATION Middletown, Iowa	
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					3. TYPE (GOGO, GOCO, COCO) GOCO	
					I. RELATED PROJECTS	
1.					Project Number	Title
2.					FY & Appn	Value (\$ mil)
3.					Facing	Start Date
					Compl Date	
SUBTOTAL EQUIPMENT COST					Not Applicable	
C. EQUIPMENT INSTALLATION COST					J. PRINCIPAL MILESTONES	
D. CONTRACTOR SUPPORT COST			83		MONTH & YEAR	
E. CORPS OF ENGINEERS SUPPORT COST			224		1. CONCEPT DESIGN COMPLETE Nov-89	
F. OTHER IN-HOUSE SUPPORT COST					2. FINAL DESIGN COMPLETE Dec-95	
TOTAL FACILITY PROJECT COST			4038		3. INITIAL/FINAL PROJECT AWARD Dec-99/Dec-99	
G. OTHER COSTS					4. CONSTRUCTION COMPLETE Jun-01	
1. FACILITY PROVE-OUT COST					5. EQUIPMENT INSTALLATION COMPLETE Not Applicable	
2. MILITARY CONSTRUCTION APPN.					6. PROVE OUT BEGINS Not Applicable	
					7. PROVE OUT COMPLETE Not Applicable	
NARRATIVE EXPLANATION						
Warehouses L-1 through L-18 dock structures are over 50 years old. Due to age and exposure, the concrete has pulled away exposing the reinforced steel within the beams and dock surface. This project, which is required for replenishment, will rehabilitate/replace these dock structures to a sound and serviceable condition. Additionally, this effort will rebuild/replace the deteriorating grade and beams located in Buildings 3A-1 and 3A-4. Yard L is the main inert storage for the facility. Line 3A is the Load Assemble and Pack (LAP) area for the 155mm artillery rounds.						

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999																						
2. PROJECT TITLE/TYPE Environmental - Upgrade Sewage Treatment Plant			3. END ITEM SUPPORTED MODEL Load, Assemble, and Pack (LAP) of Various Ammunition and Mortar Rounds to include: 40mm Demolition Kit, 60/81/120mm Mortar																									
4. PROJECT NUMBER 5002943		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable			6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable																							
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY																							
A. CONSTRUCTION COST			3693		1. NAME Milan Army Ammunition Plant																							
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					2. LOCATION Milan, Tennessee																							
1.					3. TYPE (GOGO, GOCO, COCO) GOCO																							
2.					I. RELATED PROJECTS																							
3.					<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Project Number</th> <th>Title</th> <th>FY & Appn</th> <th>Value (\$ mil)</th> <th>Facing</th> <th>Start Date</th> <th>Compl Date</th> </tr> </thead> <tbody> <tr> <td>2943B</td> <td>Env - Rehabilitate Main Sewer Treatment Collection Lines</td> <td>FY02</td> <td style="text-align: center;">1.654</td> <td style="text-align: center;">No</td> <td style="text-align: center;">Dec-01</td> <td style="text-align: center;">Nov-03</td> </tr> <tr> <td>3384</td> <td>Env - Rehabilitate/Replace Sewage Collection System</td> <td>FY02</td> <td style="text-align: center;">1.605</td> <td style="text-align: center;">No</td> <td style="text-align: center;">Dec-01</td> <td style="text-align: center;">Nov-03</td> </tr> </tbody> </table>			Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date	2943B	Env - Rehabilitate Main Sewer Treatment Collection Lines	FY02	1.654	No	Dec-01	Nov-03	3384	Env - Rehabilitate/Replace Sewage Collection System	FY02	1.605	No	Dec-01	Nov-03
Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date																						
2943B	Env - Rehabilitate Main Sewer Treatment Collection Lines	FY02	1.654	No	Dec-01	Nov-03																						
3384	Env - Rehabilitate/Replace Sewage Collection System	FY02	1.605	No	Dec-01	Nov-03																						
SUBTOTAL EQUIPMENT COST					J. PRINCIPAL MILESTONES																							
C. EQUIPMENT INSTALLATION COST			82		1. CONCEPT DESIGN COMPLETE <u>Jun-97</u>																							
D. CONTRACTOR SUPPORT COST			221		2. FINAL DESIGN COMPLETE <u>Dec-98</u>																							
E. CORPS OF ENGINEERS SUPPORT COST					3. INITIAL/FINAL PROJECT AWARD <u>Mar-00/Mar-00</u>																							
F. OTHER IN-HOUSE SUPPORT COST					4. CONSTRUCTION COMPLETE <u>Nov-01</u>																							
TOTAL FACILITY PROJECT COST			3996		5. EQUIPMENT INSTALLATION COMPLETE Not Applicable																							
G. OTHER COSTS					6. PROVE OUT BEGINS Not Applicable																							
1. FACILITY PROVE-OUT COST					7. PROVE OUT COMPLETE Not Applicable																							
2. MILITARY CONSTRUCTION APPN.																												
NARRATIVE EXPLANATION																												
<p>The existing sewage collection system and treatment plant was built in early 1940. Due to age, frequent breakdowns occur causing heavy maintenance requirements. High degrees of treatment are not easily achievable which has caused Notices of Violation (NOVs) to be issued by the State of Tennessee. This effort will rehabilitate the sewer treatment system infrastructure in a state of readiness to comply with Environmental Protection Agency (EPA) regulations by replacing and rehabilitating the existing sewer treatment plant.</p>																												

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999					
2. PROJECT TITLE/TYPE Sanitary Sewer Collection System				3. END ITEM SUPPORTED MODEL Load Assemble and Pack (LAP) of Primers, Detonators, and Volcano items including M98 Detonator, M53 Delay, M55 Detonator							
4. PROJECT NUMBER 5002955		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable							
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY						
A. CONSTRUCTION COST			1712		1. NAME Lone Star Army Ammunition Plant						
					2. LOCATION Texarkana, Texas						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					3. TYPE (GOGO, GOCO, COCO) GOCO						
					I. RELATED PROJECTS						
					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
					Not Applicable						
SUBTOTAL EQUIPMENT COST											
C. EQUIPMENT INSTALLATION COST											
D. CONTRACTOR SUPPORT COST			38								
E. CORPS OF ENGINEERS SUPPORT COST			102								
F. OTHER IN-HOUSE SUPPORT COST											
TOTAL FACILITY PROJECT COST			1852								
G. OTHER COSTS					J. PRINCIPAL MILESTONES						
1. FACILITY PROVE-OUT COST					1. CONCEPT DESIGN COMPLETE Oct-95						
2. MILITARY CONSTRUCTION APPN.					2. FINAL DESIGN COMPLETE Oct-96						
					3. INITIAL/FINAL PROJECT AWARD Dec-99/Jan-00						
					4. CONSTRUCTION COMPLETE Jul-01						
					5. EQUIPMENT INSTALLATION COMPLETE Not Applicable						
					6. PROVE OUT BEGINS Not Applicable						
					7. PROVE OUT COMPLETE Not Applicable						
NARRATIVE EXPLANATION											
The sanitary sewer collection system is over 50 years old. Infiltration of ground/rain water into the line has increased volume of waste water to the treatment plant. Exfiltration of sewage into ground/streams is causing contamination. This project will replace the existing sanitary sewer collection system to decrease amount of infiltration during wet weather and exfiltration during dry weather. This project will also increase the flow capacity of the lines.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999
2. PROJECT TITLE/TYPE Environmental - Upgrade Plant Drainage System			3. END ITEM SUPPORTED MODEL 105mm, 120mm, 155mm			
4. PROJECT NUMBER 5002986		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable		
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY	
A. CONSTRUCTION COST			1387		1. NAME Scranton Army Ammunition Plant	
					2. LOCATION Scranton , Pennsylvania	
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					3. TYPE (GOGO, GOCO, COCO) GOCO	
					I. RELATED PROJECTS	
1.					Project Number	Title
2.					FY & Appn	Value (\$ mil)
3.					Facing	Start Date
					Compl Date	
SUBTOTAL EQUIPMENT COST					Not Applicable	
C. EQUIPMENT INSTALLATION COST			31		J. PRINCIPAL MILESTONES	
D. CONTRACTOR SUPPORT COST			82		MONTH & YEAR	
E. CORPS OF ENGINEERS SUPPORT COST					1. CONCEPT DESIGN COMPLETE	
F. OTHER IN-HOUSE SUPPORT COST					2. FINAL DESIGN COMPLETE	
TOTAL FACILITY PROJECT COST			1500		3. INITIAL/FINAL PROJECT AWARD	
G. OTHER COSTS					4. CONSTRUCTION COMPLETE	
1. FACILITY PROVE-OUT COST					5. EQUIPMENT INSTALLATION COMPLETE	
2. MILITARY CONSTRUCTION APPN.					6. PROVE OUT BEGINS	
					7. PROVE OUT COMPLETE	
NARRATIVE EXPLANATION						
<p>The current storm water/sanitary sewer collection system is over 50 years old and tied together as one system; this is in violation of federal and state environmental laws. The age and physical deterioration of the system pose serious problems that may cause the Pennsylvania Natural Resources Conservation Commission (PNRC) to consider possible environmental sanctions against the plant. This project will replace or reline damaged pipes, manholes, and collection basins. Lift stations will be installed to segregate storm flow from sewer flows and direct them to the proper discharge areas. A new gravity line will be installed in the area of the tank farm to replace a collapsed sewer line and areas of roof drainage and downspouts will be replaced to resolve pooling problems along the edge of the roof.</p>						

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)

1. DATE

February 1999

2. PROJECT TITLE/TYPE: Pollution Prevention (P2) for Pink Water Effluent
 3. END ITEM SUPPORTED MODEL: Medium and Large Caliber Projectiles, 40-Pound Cratering Charge

4. PROJECT NUMBER: 5002997
 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5): Not Applicable
 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5): Not Applicable

ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01
A. CONSTRUCTION COST			211	
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)			211	
1.				
2.				
3.				
SUBTOTAL EQUIPMENT COST			211	
C. EQUIPMENT INSTALLATION COST			843	
D. CONTRACTOR SUPPORT COST			63	
E. CORPS OF ENGINEERS SUPPORT COST				
F. OTHER IN-HOUSE SUPPORT COST				
TOTAL FACILITY PROJECT COST			1328	
G. OTHER COSTS				
1. FACILITY PROVE-OUT COST				
2. MILITARY CONSTRUCTION APPN.				

H. FACILITY
 1. NAME: Iowa Army Ammunition Plant
 2. LOCATION: Middletown, Iowa
 3. TYPE (GOGO, GOCO, COCO): GOCO

I. RELATED PROJECTS

Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
	Not Applicable					

J. PRINCIPAL MILESTONES

MILESTONE	MONTH & YEAR
1. CONCEPT DESIGN COMPLETE	Not Applicable
2. FINAL DESIGN COMPLETE	Nov-98
3. INITIAL/FINAL PROJECT AWARD	Dec-99/Dec-99
4. CONSTRUCTION COMPLETE	Jul-00
5. EQUIPMENT INSTALLATION COMPLETE	Feb-01
6. PROVE OUT BEGINS	Not Applicable
7. PROVE OUT COMPLETE	Not Applicable

NARRATIVE EXPLANATION
 This project will replace the current carbon filtration process for treating Trinitrotoluene (TNT) contaminated production wash-down water. It will install an ultrasonic oxidation system in an addition to an existing structure. The new system will reduce the concentration from the present method's 50-parts-per-billion (PPB) to essentially 0-PPB (drinking water standard is 2-PPB). This reduction will also result in a cost avoidance of approximately \$20,000 per year by eliminating the handling and disposal cost of the contaminated water and carbon, both of which must be treated as hazardous waste.

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999																					
2. PROJECT TITLE/TYPE Renovate Building 100-101, Phase 2			3. END ITEM SUPPORTED MODEL Medium and Large Caliber Projectile, 120mm Mortar, 40-Pound Cratering Charge																								
4. PROJECT NUMBER 5003333		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable																							
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY																						
A. CONSTRUCTION COST			1169		1. NAME Iowa Army Ammunition Plant																						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					2. LOCATION Middletown, Iowa																						
1.					3. TYPE (GOGO, GOCO, COCO) GOCO																						
2.																											
3.																											
SUBTOTAL EQUIPMENT COST					I. RELATED PROJECTS																						
C. EQUIPMENT INSTALLATION COST					<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Project Number</th> <th style="text-align: center;">Title</th> <th style="text-align: center;">FY & Appn</th> <th style="text-align: center;">Value (\$ mil)</th> <th style="text-align: center;">Facing</th> <th style="text-align: center;">Start Date</th> <th style="text-align: center;">Compl Date</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">5333-29-001</td> <td>Renovate Building 100-101, Phase 1</td> <td style="text-align: center;">FY94</td> <td style="text-align: center;">0.271</td> <td style="text-align: center;">No</td> <td style="text-align: center;">May-94</td> <td style="text-align: center;">Oct-96</td> </tr> <tr> <td style="text-align: center;">5333-30-003</td> <td>Renovate Administration Building 100-101, Phase 3</td> <td style="text-align: center;">FY02</td> <td style="text-align: center;">0.313</td> <td style="text-align: center;">No</td> <td style="text-align: center;">Dec-01</td> <td style="text-align: center;">Nov-02</td> </tr> </tbody> </table>		Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date	5333-29-001	Renovate Building 100-101, Phase 1	FY94	0.271	No	May-94	Oct-96	5333-30-003	Renovate Administration Building 100-101, Phase 3	FY02	0.313	No	Dec-01	Nov-02
Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date																					
5333-29-001	Renovate Building 100-101, Phase 1	FY94	0.271	No	May-94	Oct-96																					
5333-30-003	Renovate Administration Building 100-101, Phase 3	FY02	0.313	No	Dec-01	Nov-02																					
D. CONTRACTOR SUPPORT COST			26																								
E. CORPS OF ENGINEERS SUPPORT COST			71																								
F. OTHER IN-HOUSE SUPPORT COST																											
TOTAL FACILITY PROJECT COST			1266		J. PRINCIPAL MILESTONES																						
G. OTHER COSTS					<table style="width:100%;"> <thead> <tr> <th></th> <th style="text-align: right;">MONTH & YEAR</th> </tr> </thead> <tbody> <tr> <td>1. CONCEPT DESIGN COMPLETE</td> <td style="text-align: right;">Nov-94</td> </tr> <tr> <td>2. FINAL DESIGN COMPLETE</td> <td style="text-align: right;">Jan-96</td> </tr> <tr> <td>3. INITIAL/FINAL PROJECT AWARD</td> <td style="text-align: right;">Jan-00/Jan-00</td> </tr> <tr> <td>4. CONSTRUCTION COMPLETE</td> <td style="text-align: right;">Jan-01</td> </tr> <tr> <td>5. EQUIPMENT INSTALLATION COMPLETE</td> <td style="text-align: right;">Not Applicable</td> </tr> <tr> <td>6. PROVE OUT BEGINS</td> <td style="text-align: right;">Not Applicable</td> </tr> <tr> <td>7. PROVE OUT COMPLETE</td> <td style="text-align: right;">Not Applicable</td> </tr> </tbody> </table>			MONTH & YEAR	1. CONCEPT DESIGN COMPLETE	Nov-94	2. FINAL DESIGN COMPLETE	Jan-96	3. INITIAL/FINAL PROJECT AWARD	Jan-00/Jan-00	4. CONSTRUCTION COMPLETE	Jan-01	5. EQUIPMENT INSTALLATION COMPLETE	Not Applicable	6. PROVE OUT BEGINS	Not Applicable	7. PROVE OUT COMPLETE	Not Applicable					
	MONTH & YEAR																										
1. CONCEPT DESIGN COMPLETE	Nov-94																										
2. FINAL DESIGN COMPLETE	Jan-96																										
3. INITIAL/FINAL PROJECT AWARD	Jan-00/Jan-00																										
4. CONSTRUCTION COMPLETE	Jan-01																										
5. EQUIPMENT INSTALLATION COMPLETE	Not Applicable																										
6. PROVE OUT BEGINS	Not Applicable																										
7. PROVE OUT COMPLETE	Not Applicable																										
NARRATIVE EXPLANATION																											
<p>This effort will remodel and renovate the Administrative Building which is over 50 years old. This project will renovate approximately 8,000 square feet of office space by installing new doors, walls, flooring, and ceiling; replacing all lighting and power circuits; adding new communications and data processing wiring; and providing a central Heating, Ventilation, and Air Conditioning (HVAC) system. The restroom plumbing fixtures and supply lines will be upgraded, and the steam condensate lines will be replaced. Asbestos fibers located in the insulation, floor, and ceiling tiles will be removed and properly disposed.</p>																											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999					
2. PROJECT TITLE/TYPE Safety - Install Dry-Type Sprinklers, Yard L				3. END ITEM SUPPORTED MODEL Medium and Large Caliber Projectiles, 120mm Mortar, 40-Pound Cratering Charge							
4. PROJECT NUMBER 5003334		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable							
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY						
			877		1. NAME Iowa Army Ammunition Plant						
A. CONSTRUCTION COST					2. LOCATION Middletown, Iowa						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					3. TYPE (GOGO, GOCO, COCO) GOCO						
1.					I. RELATED PROJECTS						
2.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
3.					5333-10-016	Install Dry Sprinklers, Yard L	FY97	0.363	No	Mar-97	Jul-98
SUBTOTAL EQUIPMENT COST					J. PRINCIPAL MILESTONES			MONTH & YEAR			
C. EQUIPMENT INSTALLATION COST					1. CONCEPT DESIGN COMPLETE			Not Applicable			
D. CONTRACTOR SUPPORT COST			20		2. FINAL DESIGN COMPLETE			Jul-98			
E. CORPS OF ENGINEERS SUPPORT COST			53		3. INITIAL/FINAL PROJECT AWARD			Dec-99/Jan-00			
F. OTHER IN-HOUSE SUPPORT COST					4. CONSTRUCTION COMPLETE			Dec-00			
TOTAL FACILITY PROJECT COST			950		5. EQUIPMENT INSTALLATION COMPLETE			Not Applicable			
G. OTHER COSTS					6. PROVE OUT BEGINS			Not Applicable			
1. FACILITY PROVE-OUT COST					7. PROVE OUT COMPLETE			Not Applicable			
2. MILITARY CONSTRUCTION APPN.											
NARRATIVE EXPLANATION											
This high-priority safety project will install a dry-type sprinkler system in 5 warehouse structures in Yard L. Currently, 19 wood frame, metal-sided warehouse structures are used to store production inert materials and equipment. These warehouses are built in close proximity to each other and have no fire suppression system. Yard L is the facilities' main inert storage area. This project is required for replenishment.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999															
2. PROJECT TITLE/TYPE Consolidate Primer Production Into Area P/Q				3. END ITEM SUPPORTED MODEL Load, Assemble, and Pack (LAP) of Primers, M98 & M55 Detonators, M33 Delay, Fuzes and Volcano Items																	
4. PROJECT NUMBER 5003358		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable																	
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY																
A. CONSTRUCTION COST					1. NAME Lone Star Army Ammunition Plant																
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)			199		2. LOCATION Texarkana, Texas																
1.					3. TYPE (GOGO, GOCO, COCO) GOCO																
2.					I. RELATED PROJECTS																
3.					<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:10%;">Project Number</th> <th style="width:40%;">Title</th> <th style="width:10%;">FY & Appn</th> <th style="width:10%;">Value (\$ mil)</th> <th style="width:10%;">Facing</th> <th style="width:10%;">Start Date</th> <th style="width:10%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td>3359</td> <td>Consolidate Area G Operations Into Area P/Q and B</td> <td>FY02</td> <td style="text-align: center;">2.166</td> <td style="text-align: center;">No</td> <td style="text-align: center;">Mar-02</td> <td style="text-align: center;">Aug-03</td> </tr> </tbody> </table>			Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date	3359	Consolidate Area G Operations Into Area P/Q and B	FY02	2.166	No	Mar-02	Aug-03
Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date															
3359	Consolidate Area G Operations Into Area P/Q and B	FY02	2.166	No	Mar-02	Aug-03															
SUBTOTAL EQUIPMENT COST			199		J. PRINCIPAL MILESTONES																
C. EQUIPMENT INSTALLATION COST			750		1. CONCEPT DESIGN COMPLETE <u>Not Applicable</u>																
D. CONTRACTOR SUPPORT COST			38		2. FINAL DESIGN COMPLETE <u>Nov-98</u>																
E. CORPS OF ENGINEERS SUPPORT COST					3. INITIAL/FINAL PROJECT AWARD <u>Mar-00/Apr-00</u>																
F. OTHER IN-HOUSE SUPPORT COST			19		4. CONSTRUCTION COMPLETE <u>Not Applicable</u>																
TOTAL FACILITY PROJECT COST			1006		5. EQUIPMENT INSTALLATION COMPLETE <u>Jun-01</u>																
G. OTHER COSTS					6. PROVE OUT BEGINS <u>Not Applicable</u>																
1. FACILITY PROVE-OUT COST					7. PROVE OUT COMPLETE <u>Not Applicable</u>																
2. MILITARY CONSTRUCTION APPN.																					
NARRATIVE EXPLANATION																					
This project will consolidate the artillery and electric primer production operations into Area P/Q. These operations are now located in Area R. This consolidation into a concentrated production area will enhance efficiency of the production operations by allowing more efficient utilization of production space and personnel. This consolidation will reduce overhead costs for the primers and all other items produced in the concentrated area.																					

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999														
2. PROJECT TITLE/TYPE Environmental - Sewer Rehabilitation Continuation			3. END ITEM SUPPORTED MODEL Medium and Large Caliber Projectiles, 120mm Mortar, 40-Pound Cratering Charge																	
4. PROJECT NUMBER 5003371		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable																
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY															
A. CONSTRUCTION COST			1887		1. NAME Iowa Army Ammunition Plant															
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					2. LOCATION Middletown, Iowa															
1.					3. TYPE (GOGO, GOCO, COCO) GOCO															
2.																				
3.																				
SUBTOTAL EQUIPMENT COST					I. RELATED PROJECTS															
C. EQUIPMENT INSTALLATION COST					<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Project Number</th> <th style="text-align: center;">Title</th> <th style="text-align: center;">FY & Appn</th> <th style="text-align: center;">Value (\$ mil)</th> <th style="text-align: center;">Facing</th> <th style="text-align: center;">Start Date</th> <th style="text-align: center;">Compl Date</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">5333-22-003</td> <td>Replace Existing Sewer Lines</td> <td style="text-align: center;">FY 95</td> <td style="text-align: center;">0.933</td> <td style="text-align: center;">No</td> <td style="text-align: center;">Nov-95</td> <td style="text-align: center;">Jan-97</td> </tr> </tbody> </table>		Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date	5333-22-003	Replace Existing Sewer Lines	FY 95	0.933	No	Nov-95	Jan-97
Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date														
5333-22-003	Replace Existing Sewer Lines	FY 95	0.933	No	Nov-95	Jan-97														
D. CONTRACTOR SUPPORT COST			43																	
E. CORPS OF ENGINEERS SUPPORT COST			113																	
F. OTHER IN-HOUSE SUPPORT COST																				
TOTAL FACILITY PROJECT COST			2043		J. PRINCIPAL MILESTONES															
G. OTHER COSTS					MONTH & YEAR															
1. FACILITY PROVE-OUT COST					1. CONCEPT DESIGN COMPLETE Aug-98															
2. MILITARY CONSTRUCTION APPN.					2. FINAL DESIGN COMPLETE Dec-98															
					3. INITIAL/FINAL PROJECT AWARD Dec-99/Jan-00															
					4. CONSTRUCTION COMPLETE Nov-00															
					5. EQUIPMENT INSTALLATION COMPLETE Not Applicable															
					6. PROVE OUT BEGINS Not Applicable															
					7. PROVE OUT COMPLETE Not Applicable															
NARRATIVE EXPLANATION																				
<p>Due to the high rate of infiltration of water into the sanitary sewer system, the influent levels of Total Suspended Solids (TSS) and Biological Oxygen Demand (BOD) are low. This level will not allow for the 85 percent reduction requirement, required by the National Pollutant Discharge Elimination System (NPDES). The Iowa Department of Natural Resources (IDNR) determined the 1995 sewage restoration effort was not adequate. This effort will eliminate leakage from groundwater to surface infiltration and modify the treatment plants to improve their capability to reduce the BOD in accordance with the state-mandated 85 percent reduction requirement. This project will bring Iowa's sanitary sewage collection/treatment system in compliance with current Environmental Protection Agency (EPA) and IDNR standards for pollution control. A Notice of Violation (NOV) from the IDNR was received 15 January 1998.</p>																				

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999					
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement				3. END ITEM SUPPORTED MODEL Load, Assemble, and Pack (LAP) Primers, Detonators, Delays, Fuzes, Volcano Items; M98 Detonator, M53 Delay, and M55 Detonator							
4. PROJECT NUMBER 5005316		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable			6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable						
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY						
A. CONSTRUCTION COST	713	916	918	1671	1. NAME Lone Star Army Ammunition Plant						
					2. LOCATION Texarkana, Texas						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)	112	669	451		3. TYPE (GOGO, GOCO, COCO) GOCO						
					I. RELATED PROJECTS						
1.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
2.					Not Applicable						
3.											
SUBTOTAL EQUIPMENT COST	112	669	451								
C. EQUIPMENT INSTALLATION COST	1	155	462								
D. CONTRACTOR SUPPORT COST	53	55	68	83							
E. CORPS OF ENGINEERS SUPPORT COST											
F. OTHER IN-HOUSE SUPPORT COST											
TOTAL FACILITY PROJECT COST	879	1795	1899	1754	J. PRINCIPAL MILESTONES			MONTH & YEAR			
G. OTHER COSTS 1. FACILITY PROVE-OUT COST 2. MILITARY CONSTRUCTION APPN.					1. CONCEPT DESIGN COMPLETE			Not Applicable			
					2. FINAL DESIGN COMPLETE			Nov-98			
					3. INITIAL/FINAL PROJECT AWARD			Mar-00/Mar-00			
					4. CONSTRUCTION COMPLETE			Sep-01			
					5. EQUIPMENT INSTALLATION COMPLETE			Sep-01			
					6. PROVE OUT BEGINS			Not Applicable			
					7. PROVE OUT COMPLETE			Not Applicable			
NARRATIVE EXPLANATION											
This project will rehabilitate 15 restrooms in Building I-5 that were constructed in the early 1940s, and it will replace the 55-year-old, deteriorating secondary water distribution system in Area F. The effort will relocate the slurry load percussion primer production facility from Area K to Area G and consolidate the X-Ray facility into Area K with the functioning test facility to allow more efficient utilization of personnel and reduce plant maintenance and utility costs. This effort will also construct curbed concrete pads around the existing burning pans at the High Explosive Burning Grounds (HEBG) with adjacent retention basins to prevent wind and debris from contaminating the storm water run-off.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999	
2. PROJECT TITLE/TYPE Support of Ammunition Production Testing			3. END ITEM SUPPORTED MODEL Initial production acceptance and product improvement for various ammunition items				
4. PROJECT NUMBER 0XX5060		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) N/A			
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY		
A. CONSTRUCTION COST B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million) SUBTOTAL EQUIPMENT COST C. EQUIPMENT INSTALLATION COST D. CONTRACTOR SUPPORT COST E. CORPS OF ENGINEERS SUPPORT COST F. OTHER IN-HOUSE SUPPORT COST TOTAL FACILITY PROJECT COST G. OTHER COSTS 1. FACILITY PROVE-OUT COST 2. MILITARY CONSTRUCTION APPN.	1400	1200	1200	1200	1. NAME <u>Yuma Proving Ground & Aberdeen Test Center</u> 2. LOCATION <u>Yuma , AZ and Aberdeen Proving Ground, MD</u> 3. TYPE (GOGO, GOCO, COCO) <u>GOGO</u>		
	I. RELATED PROJECTS						
		Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date
	1400	1200	1200	1200	J. PRINCIPAL MILESTONES		
					MONTH & YEAR 1. CONCEPT DESIGN COMPLETE <u>NA</u> 2. FINAL DESIGN COMPLETE <u>NA</u> 3. INITIAL/FINAL PROJECT AWARD <u>Dec 99/Apr 01</u> 4. CONSTRUCTION COMPLETE <u>Jun 00/Aug 01</u> 5. EQUIPMENT INSTALLATION COMPLETE <u>Jun 00/Aug 01</u> 6. PROVE OUT BEGINS _____ 7. PROVE OUT COMPLETE _____		
NARRATIVE EXPLANATION							
Yuma Proving Ground and Aberdeen Test Center (ATC) perform and report results of production acceptance test for various ammunition end items. The funds at Yuma will be used to support mobile ballistic van modernization, automated geodetic systems and ballistic measurement mobile strain systems. At ATC funds will be used for platform refrigeration packages.							

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999					
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement			3. END ITEM SUPPORTED MODEL Load, Assemble, and Pack (LAP) of Various Ammunition and Mortar Rounds, to include: 40mm Demo Kit, 60/81/120mm Mortar								
4. PROJECT NUMBER 5005317		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable			6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable						
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY						
A. CONSTRUCTION COST		1983	705	2027	1. NAME Milan Army Ammunition Plant						
					2. LOCATION Milan, Tennessee						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)	720	838	1080	149	3. TYPE (GOGO, GOCO, COCO) GOCO						
					I. RELATED PROJECTS						
1.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
2.					Not Applicable						
3.											
SUBTOTAL EQUIPMENT COST	720	838	1080	149	J. PRINCIPAL MILESTONES						
C. EQUIPMENT INSTALLATION COST		398	159	180	MONTH & YEAR						
D. CONTRACTOR SUPPORT COST		118	23	68	1. CONCEPT DESIGN COMPLETE <u>Not Applicable</u>						
E. CORPS OF ENGINEERS SUPPORT COST					2. FINAL DESIGN COMPLETE <u>Nov-98</u>						
F. OTHER IN-HOUSE SUPPORT COST					3. INITIAL/FINAL PROJECT AWARD <u>Jan-00/Jan-00</u>						
TOTAL FACILITY PROJECT COST	720	3337	1967	2424	4. CONSTRUCTION COMPLETE <u>Jun-01</u>						
G. OTHER COSTS					5. EQUIPMENT INSTALLATION COMPLETE <u>Jul-01</u>						
1. FACILITY PROVE-OUT COST					6. PROVE OUT BEGINS <u>Not Applicable</u>						
2. MILITARY CONSTRUCTION APPN.					7. PROVE OUT COMPLETE <u>Not Applicable</u>						
NARRATIVE EXPLANATION											
This project will replace the over 40-year-old grinding machine with a new high-technology Computer Numerically Controlled (CNC) Cylindrical Grinding Machine in order to improve quality, increase capability to grind unusual geometric shapes, and increase repeatability and accuracy. It will replace 3 Explosive Melt Kettles at Building X-41 and provide the capability of vacuum melting, variable speed agitators, and maximized mixing capabilities. It will install safety railings around docks and water towers on active lines in order to correct Occupational Safety and Health Administration (OSHA) deficiencies. This project includes the relocation of maintenance functions in Area I to Area J in order to consolidate all maintenance functions into a single area.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999															
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement			3. END ITEM SUPPORTED MODEL Propellants and Explosives (Nitroglycerin and Nitrocellulose)																		
4. PROJECT NUMBER 5005326		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable			6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable																
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY																
					1. NAME Radford Army Ammunition Plant																
					2. LOCATION Radford, Virginia																
					3. TYPE (GOGO, GOCO, COCO) GOCO																
A. CONSTRUCTION COST		1786	778		I. RELATED PROJECTS																
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)	1284	1161	446	1131	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Project Number</th> <th style="text-align: center;">Title</th> <th style="text-align: center;">FY & Appn</th> <th style="text-align: center;">Value (\$ mil)</th> <th style="text-align: center;">Facing</th> <th style="text-align: center;">Start Date</th> <th style="text-align: center;">Compl Date</th> </tr> </thead> <tbody> <tr> <td></td> <td>Not Applicable</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date		Not Applicable					
Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date															
	Not Applicable																				
1.																					
2.																					
3.																					
SUBTOTAL EQUIPMENT COST	1284	1161	446	1131																	
C. EQUIPMENT INSTALLATION COST	415	358	297	1503	J. PRINCIPAL MILESTONES																
D. CONTRACTOR SUPPORT COST		58	41	76	MONTH & YEAR																
E. CORPS OF ENGINEERS SUPPORT COST		107	46		1. CONCEPT DESIGN COMPLETE May-98																
F. OTHER IN-HOUSE SUPPORT COST					2. FINAL DESIGN COMPLETE Dec-98																
TOTAL FACILITY PROJECT COST	1699	3470	1608	2710	3. INITIAL/FINAL PROJECT AWARD May-00/May-00																
G. OTHER COSTS					4. CONSTRUCTION COMPLETE Sep-02																
1. FACILITY PROVE-OUT COST					5. EQUIPMENT INSTALLATION COMPLETE Sep-02																
2. MILITARY CONSTRUCTION APPN.					6. PROVE OUT BEGINS Not Applicable																
					7. PROVE OUT COMPLETE Not Applicable																
NARRATIVE EXPLANATION																					
<p>This project will replace the distribution waterlines in the Green Lines Area. These lines have been in service for over 50 years and have deteriorated to a point that 27 breaks and leaks have occurred within the past 18 months. Replacement of the existing water lines will help eliminate related production shutdowns. This effort will also replace the existing ammonia/brine refrigeration system located in Building 3046. The current equipment is obsolete and the model is no longer manufactured; therefore, repair parts cannot be obtained. There is also evidence of corrosion on the equipment.</p>																					

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999					
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement			3. END ITEM SUPPORTED MODEL Medium and Large Caliber Projectile, 40-Pound Cratering Charge								
4. PROJECT NUMBER 5005333		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable			6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable						
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY						
					1. NAME Iowa Army Ammunition Plant						
					2. LOCATION Middletown, Iowa						
					3. TYPE (GOGO, GOCO, COCO) GOCO						
A. CONSTRUCTION COST		1664	332	1686	I. RELATED PROJECTS						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)	1126	611	1711	384							
1.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
2.					Not Applicable						
3.											
SUBTOTAL EQUIPMENT COST	1126	611	1711	384							
C. EQUIPMENT INSTALLATION COST	300	1209	510	205	J. PRINCIPAL MILESTONES						
D. CONTRACTOR SUPPORT COST		114	42	66	MONTH & YEAR						
E. CORPS OF ENGINEERS SUPPORT COST		101		61	1. CONCEPT DESIGN COMPLETE						
F. OTHER IN-HOUSE SUPPORT COST					2. FINAL DESIGN COMPLETE						
TOTAL FACILITY PROJECT COST	1426	3699	2595	2402	3. INITIAL/FINAL PROJECT AWARD						
G. OTHER COSTS					4. CONSTRUCTION COMPLETE						
1. FACILITY PROVE-OUT COST					5. EQUIPMENT INSTALLATION COMPLETE						
2. MILITARY CONSTRUCTION APPN.					6. PROVE OUT BEGINS						
					7. PROVE OUT COMPLETE						
NARRATIVE EXPLANATION											
<p>This project will replace the conveyor system that transports the heavy-duty precision fixtures for bonding 120mm cartridge cases to projectiles and will also replace the final assembly conveyor in which the 120mm projectiles are transported through a series of stations which torque, check height and stake the primer. This project provides for a new self-propelled coal pile scraper and a thermal analyzer mass spectrometer. To meet the needs of the local area network (LAN), this effort will procure and install hard drive and tape storage systems. Additionally, the existing deteriorated aluminum roofing on specific warehouses in Yard L will be replaced with new plywood decking and asphalt shingles.</p>											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999	
2. PROJECT TITLE/TYPE Environmental - Acid Wastewater Treatment Sludge Handling Facility				3. END ITEM SUPPORTED MODEL Propellants and Explosives (Nitroglycerin and Nitrocellulose)			
4. PROJECT NUMBER 5012894		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable			6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable		
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY		
A. CONSTRUCTION COST				7044	1. NAME Radford Army Ammunition Plant		
					2. LOCATION Radford, Virginia		
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					3. TYPE (GOGO, GOCO, COCO) GOCO		
					I. RELATED PROJECTS		
1.					Project Number	Title	FY & Appn
2.							Value (\$ mil)
3.							Facing
							Start Date
							Compl Date
SUBTOTAL EQUIPMENT COST							
C. EQUIPMENT INSTALLATION COST				156			
D. CONTRACTOR SUPPORT COST				423			
E. CORPS OF ENGINEERS SUPPORT COST				35			
F. OTHER IN-HOUSE SUPPORT COST							
TOTAL FACILITY PROJECT COST				7658	J. PRINCIPAL MILESTONES		
G. OTHER COSTS					1. CONCEPT DESIGN COMPLETE		Sep-94
					2. FINAL DESIGN COMPLETE		Nov-99
1. FACILITY PROVE-OUT COST					3. INITIAL/FINAL PROJECT AWARD		Jan-01/Jan-01
2. MILITARY CONSTRUCTION APPN.					4. CONSTRUCTION COMPLETE		Apr-03
					5. EQUIPMENT INSTALLATION COMPLETE		Not Applicable
					6. PROVE OUT BEGINS		May-03
					7. PROVE OUT COMPLETE		Jun-03
NARRATIVE EXPLANATION							
This project will upgrade the AB-Line Acid Wastewater Sludge Handling System to handle all the acidic wastewater from AB and C-Line Nitrocellulose and the Acid Area. The sludge has been proposed to be ruled a hazardous waste by the Virginia Department of Waste Management and the existing earth lagoons do not comply with hazardous waste regulations. This project will provide facilities to comply with the State and Federal Resource Conservation and Recovery Act (RCRA) regulations.							

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999					
2. PROJECT TITLE/TYPE Dike Replacement				3. END ITEM SUPPORTED MODEL Propellants and Explosives (Nitroglycerin and Nitrocellulose)							
4. PROJECT NUMBER 5012924		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable							
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY						
				5868	1. NAME <u>Radford Army Ammunition Plant</u> 2. LOCATION <u>Radford, Virginia</u> 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>						
A. CONSTRUCTION COST					I. RELATED PROJECTS						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
1.						Not Available					
2.											
3.											
SUBTOTAL EQUIPMENT COST											
C. EQUIPMENT INSTALLATION COST				131	J. PRINCIPAL MILESTONES						
D. CONTRACTOR SUPPORT COST				352							MONTH & YEAR
E. CORPS OF ENGINEERS SUPPORT COST				30	1. CONCEPT DESIGN COMPLETE						<u>Not Applicable</u>
F. OTHER IN-HOUSE SUPPORT COST					2. FINAL DESIGN COMPLETE						<u>Nov-99</u>
TOTAL FACILITY PROJECT COST				6381	3. INITIAL/FINAL PROJECT AWARD						<u>Mar-01/Mar-01</u>
G. OTHER COSTS					4. CONSTRUCTION COMPLETE						<u>Sep-02</u>
1. FACILITY PROVE-OUT COST					5. EQUIPMENT INSTALLATION COMPLETE						<u>Not Applicable</u>
2. MILITARY CONSTRUCTION APPN.					6. PROVE OUT BEGINS						<u>Not Applicable</u>
					7. PROVE OUT COMPLETE						<u>Not Applicable</u>
NARRATIVE EXPLANATION											
<p>This project is for rehabilitation or replacement of approximately 200 dike sites that provide spill protection for approximately 350 tanks. Due to deterioration or substandard components, numerous dikes (otherwise known as secondary containment) are in need of improvement or replacement. This project will provide new dikes or improvements to the existing secondary containment at storage tanks at the installation's active facilities. This will prevent release of fuel, used oil and other petroleum productions, corrosives, solvents, and other hazardous materials to the environment.</p>											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999																
2. PROJECT TITLE/TYPE Environmental - Acid Sewer System Upgrade			3. END ITEM SUPPORTED MODEL Propellants and Explosives (Nitroglycerin and Nitrocellulose)																			
4. PROJECT NUMBER 5012925		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable																		
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY																	
A. CONSTRUCTION COST B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million) 1. 2. 3. SUBTOTAL EQUIPMENT COST C. EQUIPMENT INSTALLATION COST D. CONTRACTOR SUPPORT COST E. CORPS OF ENGINEERS SUPPORT COST F. OTHER IN-HOUSE SUPPORT COST TOTAL FACILITY PROJECT COST G. OTHER COSTS 1. FACILITY PROVE-OUT COST 2. MILITARY CONSTRUCTION APPN.				4070	1. NAME <u>Radford Army Ammunition Plant</u> 2. LOCATION <u>Radford, Virginia</u> 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>																	
					I. RELATED PROJECTS <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Project Number</th> <th style="text-align: center;">Title</th> <th style="text-align: center;">FY & Appn</th> <th style="text-align: center;">Value (\$ mil)</th> <th style="text-align: center;">Facing</th> <th style="text-align: center;">Start Date</th> <th style="text-align: center;">Compl Date</th> </tr> </thead> <tbody> <tr> <td></td> <td>Not Applicable</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date		Not Applicable							
Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date																
	Not Applicable																					
				321	J. PRINCIPAL MILESTONES <table style="width:100%;"> <thead> <tr> <th></th> <th style="text-align: right;">MONTH & YEAR</th> </tr> </thead> <tbody> <tr> <td>1. CONCEPT DESIGN COMPLETE</td> <td style="text-align: right;"><u>Aug-98</u></td> </tr> <tr> <td>2. FINAL DESIGN COMPLETE</td> <td style="text-align: right;"><u>Nov-99</u></td> </tr> <tr> <td>3. INITIAL/FINAL PROJECT AWARD</td> <td style="text-align: right;"><u>Feb-01/Feb-01</u></td> </tr> <tr> <td>4. CONSTRUCTION COMPLETE</td> <td style="text-align: right;"><u>Dec-02</u></td> </tr> <tr> <td>5. EQUIPMENT INSTALLATION COMPLETE</td> <td style="text-align: right;"><u>Not Applicable</u></td> </tr> <tr> <td>6. PROVE OUT BEGINS</td> <td style="text-align: right;"><u>Not Applicable</u></td> </tr> <tr> <td>7. PROVE OUT COMPLETE</td> <td style="text-align: right;"><u>Not Applicable</u></td> </tr> </tbody> </table>			MONTH & YEAR	1. CONCEPT DESIGN COMPLETE	<u>Aug-98</u>	2. FINAL DESIGN COMPLETE	<u>Nov-99</u>	3. INITIAL/FINAL PROJECT AWARD	<u>Feb-01/Feb-01</u>	4. CONSTRUCTION COMPLETE	<u>Dec-02</u>	5. EQUIPMENT INSTALLATION COMPLETE	<u>Not Applicable</u>	6. PROVE OUT BEGINS	<u>Not Applicable</u>	7. PROVE OUT COMPLETE	<u>Not Applicable</u>
	MONTH & YEAR																					
1. CONCEPT DESIGN COMPLETE	<u>Aug-98</u>																					
2. FINAL DESIGN COMPLETE	<u>Nov-99</u>																					
3. INITIAL/FINAL PROJECT AWARD	<u>Feb-01/Feb-01</u>																					
4. CONSTRUCTION COMPLETE	<u>Dec-02</u>																					
5. EQUIPMENT INSTALLATION COMPLETE	<u>Not Applicable</u>																					
6. PROVE OUT BEGINS	<u>Not Applicable</u>																					
7. PROVE OUT COMPLETE	<u>Not Applicable</u>																					
				244																		
				4635																		
NARRATIVE EXPLANATION <p>This effort is to provide for remediation of the acid sewer system. The primary means of rehabilitation will be line replacement or line reconstruction without excavation using cured in-place resin. This will include the excavation and disposal of contaminated soil or other wastes. The acid and Nitrocellulose sewer mains to the waste acid area neutralization plants are in poor condition. To prevent groundwater contamination, these sewer systems must be upgraded and replaced. Remediation will be conducted to ensure the environment is protected and that Radford Army Ammunition Plant is in environmental compliance.</p>																						

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999					
2. PROJECT TITLE/TYPE Infrastructure - Contaminated Waste Processor			3. END ITEM SUPPORTED MODEL Medium and Large Caliber Projectiles, 120mm Mortar, 40-Pound Cratering Charge								
4. PROJECT NUMBER 5012949		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable			6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable						
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY						
A. CONSTRUCTION COST				4506	1. NAME Iowa Army Ammunition Plant						
					2. LOCATION Middletown, Iowa						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					3. TYPE (GOGO, GOCO, COCO) GOCO						
1.					I. RELATED PROJECTS						
2.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
3.					Not Applicable						
SUBTOTAL EQUIPMENT COST											
C. EQUIPMENT INSTALLATION COST					100						
D. CONTRACTOR SUPPORT COST					271						
E. CORPS OF ENGINEERS SUPPORT COST											
F. OTHER IN-HOUSE SUPPORT COST											
TOTAL FACILITY PROJECT COST					4877						
G. OTHER COSTS						J. PRINCIPAL MILESTONES					
1. FACILITY PROVE-OUT COST											MONTH & YEAR
2. MILITARY CONSTRUCTION APPN.						1. CONCEPT DESIGN COMPLETE					<u>Feb-97</u>
						2. FINAL DESIGN COMPLETE					<u>Apr-99</u>
						3. INITIAL/FINAL PROJECT AWARD					<u>Dec-00/Jan-01</u>
						4. CONSTRUCTION COMPLETE					<u>Aug-02</u>
						5. EQUIPMENT INSTALLATION COMPLETE					<u>Not Applicable</u>
						6. PROVE OUT BEGINS					<u>Not Applicable</u>
						7. PROVE OUT COMPLETE					<u>Not Applicable</u>
NARRATIVE EXPLANATION											
This project will construct an additional Contaminated Waste Processor (CWP) facility in the area adjacent to the existing CWP. The new unit will be similar to the existing unit, which is to decontaminate or incinerate items such as equipment, fixtures, tooling, scrap metal, wood and paper containers that have been in contact or in the proximity of explosive dust and particles. Also included is a complete air pollution control system with a gas cooler, mechanical separator, and baghouse. The current CWP unit operates on a batch basis, incurring significant lost operating time while waiting for the unit to cool between cycles. Provision of a second CWP will double processing output and eliminate the need for multi-shift operation. It will result in an annual savings of approximately \$169,000.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999
2. PROJECT TITLE/TYPE Install Steam Line to Line 3A			3. END ITEM SUPPORTED MODEL 155mm/M795, 120mm Mortars, 40-Pound Cratering Charge			
4. PROJECT NUMBER 5012998		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable		
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY	
A. CONSTRUCTION COST				3595	1. NAME Iowa Army Ammunition Plant	
					2. LOCATION Middletown, Iowa	
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					3. TYPE (GOGO, GOCO, COCO) GOCO	
1.					I. RELATED PROJECTS	
2.					Project Number	Title
3.					FY & Appn	Value (\$ mil)
					Facing	Start Date
					Compl Date	
SUBTOTAL EQUIPMENT COST					Not Applicable	
C. EQUIPMENT INSTALLATION COST				80		
D. CONTRACTOR SUPPORT COST				216		
E. CORPS OF ENGINEERS SUPPORT COST						
F. OTHER IN-HOUSE SUPPORT COST						
TOTAL FACILITY PROJECT COST				3891		
G. OTHER COSTS					J. PRINCIPAL MILESTONES	
1. FACILITY PROVE-OUT COST					MONTH & YEAR	
2. MILITARY CONSTRUCTION APPN.					1. CONCEPT DESIGN COMPLETE May-98	
					2. FINAL DESIGN COMPLETE Nov-99	
					3. INITIAL/FINAL PROJECT AWARD Dec-00/Dec-00	
					4. CONSTRUCTION COMPLETE Oct-01	
					5. EQUIPMENT INSTALLATION COMPLETE Not Applicable	
					6. PROVE OUT BEGINS Not Applicable	
					7. PROVE OUT COMPLETE Not Applicable	
NARRATIVE EXPLANATION						
<p>The existing stand-alone steam plant at Line 3A presents several problems. 3A-02 is the only source of heat for the production Line 3A; should a problem occur where the plant would lose one or both boilers during extremely cold weather, freeze damage could occur before the problem is corrected. The operation of a separate heating plant for Line 3A presents an additional source of air emissions beyond that experienced with the main heating plant alone. This project will install a steam line from the main heating plant to Line 3A, thereby eliminating the need of the 3A-02 heating plant. This will eliminate considerable Oxide of Sulfur (SOX) and Oxide of Nitrogen (NOX) emissions from the facility. Preliminary estimates indicate that this project will pay for itself within 2 years.</p>						

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999	
2. PROJECT TITLE/TYPE Install Air Conditioning for 120mm Load, Assemble, and Pack (LAP)			3. END ITEM SUPPORTED MODEL 120mm M829E3 Armor Piercing Fin Stabilized Discarding Sabot - Tracer (APFSDS-T) Kinetic Energy Round				
4. PROJECT NUMBER 5013381		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable			
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY		
A. CONSTRUCTION COST B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million) 1. 2. 3. SUBTOTAL EQUIPMENT COST C. EQUIPMENT INSTALLATION COST D. CONTRACTOR SUPPORT COST E. CORPS OF ENGINEERS SUPPORT COST F. OTHER IN-HOUSE SUPPORT COST TOTAL FACILITY PROJECT COST G. OTHER COSTS 1. FACILITY PROVE-OUT COST 2. MILITARY CONSTRUCTION APPN.				1025	1. NAME <u>Iowa Army Ammunition Plant</u> 2. LOCATION <u>Middletown, Iowa</u> 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>		
	I. RELATED PROJECTS						
						Project Number	Title
						FY & Appn	Value (\$ mil)
						Facing	Start Date
						Compl Date	
						Not Applicable	
					23		
					61		
					1109		
					J. PRINCIPAL MILESTONES		
					MONTH & YEAR		
					1. CONCEPT DESIGN COMPLETE <u>Dec-98</u>		
					2. FINAL DESIGN COMPLETE <u>Nov-99</u>		
					3. INITIAL/FINAL PROJECT AWARD <u>Dec-00/Jan-01</u>		
					4. CONSTRUCTION COMPLETE <u>Oct-01</u>		
					5. EQUIPMENT INSTALLATION COMPLETE <u>Not Applicable</u>		
					6. PROVE OUT BEGINS <u>Not Applicable</u>		
					7. PROVE OUT COMPLETE <u>Not Applicable</u>		
NARRATIVE EXPLANATION							
<p>This project will provide temperature and humidity regulation of tempered air for production quality control. This project will install a new heating, ventilating, and air conditioning (HVAC) system in Building 2-10 capable of providing tempered air at 75-degrees Fahrenheit and 55-percent relative humidity. This project will also provide consistent humidity to ensure that Load, Assemble, and Pack (LAP) painting is completed and explosive/paint conform to moisture specifications. This effort is required to meet production and replenishment requirements.</p>							

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999					
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement				3. END ITEM SUPPORTED MODEL Load, Assemble, and Pack (LAP) Primers, Detonators, Delays, Fuzes, Volcano Items, M98 Detonator, M53 Delay, and M55 Detonator							
4. PROJECT NUMBER 5015316		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable			6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable						
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY						
A. CONSTRUCTION COST	713	916	918	1671	1. NAME Lone Star Army Ammunition Plant						
					2. LOCATION Texarkana, Texas						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)	112	669	451		3. TYPE (GOGO, GOCO, COCO) GOCO						
					I. RELATED PROJECTS						
1.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
2.					Not Applicable						
3.											
SUBTOTAL EQUIPMENT COST	112	669	451								
C. EQUIPMENT INSTALLATION COST	1	155	462								
D. CONTRACTOR SUPPORT COST	53	55	68	83							
E. CORPS OF ENGINEERS SUPPORT COST											
F. OTHER IN-HOUSE SUPPORT COST											
TOTAL FACILITY PROJECT COST	879	1795	1899	1754	J. PRINCIPAL MILESTONES			MONTH & YEAR			
G. OTHER COSTS 1. FACILITY PROVE-OUT COST 2. MILITARY CONSTRUCTION APPN.					1. CONCEPT DESIGN COMPLETE			Not Applicable			
					2. FINAL DESIGN COMPLETE			Nov-99			
					3. INITIAL/FINAL PROJECT AWARD			Dec-00/Dec-00			
					4. CONSTRUCTION COMPLETE			Sep-02			
					5. EQUIPMENT INSTALLATION COMPLETE			Not Applicable			
					6. PROVE OUT BEGINS			Not Applicable			
					7. PROVE OUT COMPLETE			Not Applicable			
NARRATIVE EXPLANATION											
This project will provide for the replacement of the East-West Corridor Road and Area A Entrance Road. This effort is necessary to prevent further deterioration and damage to road base and sub-base. This project will replace the roofing in Areas A and B which are worn beyond economical repair. Further, this effort will replace the existing secondary water distribution system in Area B that is over 50 years old. Repair parts are unavailable; line, valves, and fire hydrants leak or do not operate properly; and changes in water pressure and temperature result in breaks on a regular basis.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999					
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement				3. END ITEM SUPPORTED MODEL Load, Assemble, and Pack (LAP) of Various Ammunition and Mortar Rounds to include 40mm Demo Kit, 60/81/120mm Mortar							
4. PROJECT NUMBER 5015317		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable			6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable						
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY						
A. CONSTRUCTION COST		1983	705	2027	1. NAME Milan Army Ammunition Plant						
					2. LOCATION Milan, Tennessee						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)	720	838	1080	149	3. TYPE (GOGO, GOCO, COCO) GOCO						
					I. RELATED PROJECTS						
1.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
2.					Not Applicable						
3.											
SUBTOTAL EQUIPMENT COST	720	838	1080	149	J. PRINCIPAL MILESTONES						
C. EQUIPMENT INSTALLATION COST		398	159	180	MONTH & YEAR						
D. CONTRACTOR SUPPORT COST		118	23	68	1. CONCEPT DESIGN COMPLETE <u>Not Applicable</u>						
E. CORPS OF ENGINEERS SUPPORT COST					2. FINAL DESIGN COMPLETE <u>Nov-99</u>						
F. OTHER IN-HOUSE SUPPORT COST					3. INITIAL/FINAL PROJECT AWARD <u>Jan-01/Jan-01</u>						
TOTAL FACILITY PROJECT COST	720	3337	1967	2424	4. CONSTRUCTION COMPLETE <u>Jun-02</u>						
G. OTHER COSTS					5. EQUIPMENT INSTALLATION COMPLETE <u>Jul-02</u>						
1. FACILITY PROVE-OUT COST					6. PROVE OUT BEGINS <u>Not Applicable</u>						
2. MILITARY CONSTRUCTION APPN.					7. PROVE OUT COMPLETE <u>Not Applicable</u>						
NARRATIVE EXPLANATION											
This project will replace and install 2 water-cooled air compressors in order to improve the quality of processing air at B-line and will replace the K-10 coal-fired boilers in order to improve air quality by eliminating sulfur dioxide emissions. This effort will repave plant Route 85 that has deteriorated to a point that the present method of repairing with tar and gravel patch does not solve the problems. This project will reroof Buildings K-204 through K-206 which are over-aged and have become a potential safety and environmental hazard due to asbestos content and also reroof 11 inert storage buildings in Area S to prevent water damage to materials and correct unsafe conditions.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement			3. END ITEM SUPPORTED MODEL Propellants and Explosives (Nitroglycerin and Nitrocellulose)			
4. PROJECT NUMBER 5015326		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable		
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY	
A. CONSTRUCTION COST		1786		778	1. NAME Radford Army Ammunition Plant	
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)	1284	1161	446	1131	2. LOCATION Radford, Virginia	
1.					3. TYPE (GOGO, GOCO, COCO) GOCO	
2.					I. RELATED PROJECTS	
3.					Project Number	Title
					FY & Appn	Value (\$ mil)
					Facing	Start Date
					Compl Date	
SUBTOTAL EQUIPMENT COST	1284	1161	446	1131	Not Applicable	
C. EQUIPMENT INSTALLATION COST	415	358	297	1503	J. PRINCIPAL MILESTONES	
D. CONTRACTOR SUPPORT COST		58	41	76	MONTH & YEAR	
E. CORPS OF ENGINEERS SUPPORT COST		107	46		1. CONCEPT DESIGN COMPLETE Not Applicable	
F. OTHER IN-HOUSE SUPPORT COST					2. FINAL DESIGN COMPLETE Nov-99	
TOTAL FACILITY PROJECT COST	1699	3470	1608	2710	3. INITIAL/FINAL PROJECT AWARD Mar-01/Mar-01	
G. OTHER COSTS					4. CONSTRUCTION COMPLETE Not Applicable	
1. FACILITY PROVE-OUT COST					5. EQUIPMENT INSTALLATION COMPLETE Jun-02	
2. MILITARY CONSTRUCTION APPN.					6. PROVE OUT BEGINS Not Applicable	
					7. PROVE OUT COMPLETE Not Applicable	
NARRATIVE EXPLANATION						
<p>This project will replace the Flyash Controls in Building 400 in order to obtain a reliable operation of ash collection system essential to Powerhouse operations and will replace the existing deteriorated underground terracotta clay pipe acid drain line with an aboveground system in order to avoid additional environmental releases of acidic wastewater. This effort will complete the removal of asbestos insulation from 4 boilers, ash hoppers, and piping in Building 400. It will replace the chiller in Buildings 2522 and 3522 that are used to chill water for production equipment. The current refrigerant used in these chillers does not comply with environmental regulations.</p>						

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)

1. DATE
February 1999

2. PROJECT TITLE/TYPE
Production Support and Equipment Replacement

3. END ITEM SUPPORTED MODEL
Medium and Large Caliber Projectile, 120mm Mortar, 40-Pound Cratering Charge

4. PROJECT NUMBER
5015333

5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)
Not Applicable

6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)
Not Applicable

ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY						
					I. RELATED PROJECTS						
A. CONSTRUCTION COST	1126	611	1711	384	1. NAME Iowa Army Ammunition Plant						
					2. LOCATION Middletown, Iowa						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)	1126	611	1711	384	3. TYPE (GOGO, GOCO, COCO) GOCO						
					I. RELATED PROJECTS						
					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
1.					Not Applicable						
2.											
3.											
SUBTOTAL EQUIPMENT COST	1126	611	1711	384							
C. EQUIPMENT INSTALLATION COST	300	1209	510	205							
D. CONTRACTOR SUPPORT COST		114	42	66							
E. CORPS OF ENGINEERS SUPPORT COST		101		61							
F. OTHER IN-HOUSE SUPPORT COST											
TOTAL FACILITY PROJECT COST	1426	3699	2595	2402							
G. OTHER COSTS					J. PRINCIPAL MILESTONES						
1. FACILITY PROVE-OUT COST					MONTH & YEAR						
2. MILITARY CONSTRUCTION APPN.					1. CONCEPT DESIGN COMPLETE Oct-97						
					2. FINAL DESIGN COMPLETE Nov-99						
					3. INITIAL/FINAL PROJECT AWARD Dec-00/Jan-01						
					4. CONSTRUCTION COMPLETE Jul-02						
					5. EQUIPMENT INSTALLATION COMPLETE Dec-01						
					6. PROVE OUT BEGINS Not Applicable						
					7. PROVE OUT COMPLETE Not Applicable						

NARRATIVE EXPLANATION

This project will replace the existing 120mm can line in building 2-01 and reconfigure the transfer of cartridges from the bonding conveyor to the paint conveyor in Building 2-13 Blousing Area. This effort will resurface plant roads A, B, and E which are rapidly deteriorating; provide for the electrical upgrade of Building 3-05-01; and replace the heating, ventilation, and air conditioning (HVAC) systems in the Chemistry Laboratory. It will also replace the roofs on Buildings 1-04 and 1-01, and the existing aluminum roofing on Warehouses L-22, 23, 24, and 25.

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 1999
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement			3. END ITEM SUPPORTED MODEL 120mm (M929, M934), 155mm (M107,M795, M825)			
4. PROJECT NUMBER 5015342		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5) Not Applicable		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5) Not Applicable		
ELEMENT OF COST	FY 98	FY 99	FY 00	FY 01	H. FACILITY	
A. CONSTRUCTION COST		749		1084	1. NAME Scranton Army Ammunition Plant	
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)	89	986		279	2. LOCATION Scranton, Pennsylvania	
1.					3. TYPE (GOGO, GOCO, COCO) GOCO	
2.					I. RELATED PROJECTS	
3.					Project Number	Title
					FY & Appn	Value (\$ mil)
					Facing	Start Date
					Compl Date	
SUBTOTAL EQUIPMENT COST	89	986		279	Not Applicable	
C. EQUIPMENT INSTALLATION COST	25	403		89	J. PRINCIPAL MILESTONES	
D. CONTRACTOR SUPPORT COST	12	57		60	MONTH & YEAR	
E. CORPS OF ENGINEERS SUPPORT COST					1. CONCEPT DESIGN COMPLETE Not Applicable	
F. OTHER IN-HOUSE SUPPORT COST					2. FINAL DESIGN COMPLETE Nov-99	
TOTAL FACILITY PROJECT COST	126	2195		1512	3. INITIAL/FINAL PROJECT AWARD Dec-00/Dec-00	
G. OTHER COSTS					4. CONSTRUCTION COMPLETE Nov-02	
1. FACILITY PROVE-OUT COST					5. EQUIPMENT INSTALLATION COMPLETE Nov-02	
2. MILITARY CONSTRUCTION APPN.					6. PROVE OUT BEGINS Not Applicable	
					7. PROVE OUT COMPLETE Not Applicable	
NARRATIVE EXPLANATION						
This project will provide for robotic and manipulator guarding to provide protection to workforce when handling hot forgings. It will replace the existing halon fire suppression systems with new suppression systems that utilize environmentally acceptable suppression methods and install exhaust stacks for one forge shop furnace in order to remove combustible gases from within the building to an area outside the building. This effort will rebuild a seriously deteriorated railbed and rehabilitate billet yard cranes, which play a major role in the production operations of the facility.						

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support
 P-1 Item Nomenclature: LAYAWAY OF INDUSTRIAL FACILITIES (EP2000)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	517.7	21.3	13.1	15.3	3.5	3.2	6.7	6.0	6.1	6.2	0.0	599.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	517.7	21.3	13.1	15.3	3.5	3.2	6.7	6.0	6.1	6.2	0.0	599.1
Initial Spares												
Total Proc Cost	517.7	21.3	13.1	15.3	3.5	3.2	6.7	6.0	6.1	6.2	0.0	599.1
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: This line provides for the preserving, storing, and disposing of industrial facilities and equipment that are no longer required to support current production. Funding is required as follows:

<u>PROJECT NUMBER</u>		<u>FY 00</u>	<u>FY 01</u>
5XX4050	INDUSTRIAL OPERATIONS COMMAND (IOC)	3.5	3.2
	LAYAWAY AND/OR REDISTRIBUTION OF GOVERNMENT-OWNED EQUIPMENT	(2.3)	(2.6) DECONTAMINATION
		(0.6)	(0.6) LAYAWAY
		(0.6)	(0.0) MODIFIED CARETAKER
	TOTAL IOC LAYAWAY OF INDUSTRIAL FACILITIES	3.5	3.2

JUSTIFICATION: Funds are used for the protection and preservation of equipment and facilities no longer required for active production but must be retained for possible future peacetime or replenishment production needs. Included are those funds 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.

Exhibit P-40C Budget Item Justification Sheet

Date

February 1999

Appropriation / Budget Activity/Serial No.

P-1 Item Nomenclature

PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support

LAYAWAY OF INDUSTRIAL FACILITIES (EP2000)

Program Elements for Code B Items

Code

Other Related Program Elements

<u>LOCATION</u>	<u>PROJECT TITLE</u>	<u>PROJECT</u>	<u>FY 00</u>	<u>FY 01</u>
Iowa Army Ammunition Plant (AAP), Milan AAP, Lone Star AAP and COCO	Retain (RT) - Layaway (Lwy) and Downsize (D) Minor Efforts less than \$75K	8000	.285	.350
Holston AAP Kingsport, TN	RT - Lwy Miscellaneous Facilities	8914	.200	
Holston AAP	DS - Modified Caretaker Miscellaneous Facilities	8915	.200	
Iowa AAP Middletown, IA	RT - Lwy M913, 105mm Artillery Projectile, Load, Assemble, and Pack (LAP)	8904	.125	
Joliet AAP Joliet, IL	DS - Transite Removal, Phase I	8009		.312
Lone Star AAP Texarkana, TX	RT - Lwy M67 Grenade Equipment, Line O	8627	.337	
Lone Star AAP	RT - Layaway Family of Scatterable Mines (FASCAM)	8801		.560
Lone Star AAP	DS - Transition Areas S and K to Modified Caretaker	8809	.442	
Louisiana AAP Shreveport, LA	DS - Asbestos Removal	8010	1.100	
Mississippi AAP Stennis Space Center, MS	DS - Excess Boilers	8740	.246	
Pine Bluff Arsenal Pine Bluff, AR	RT - Lwy 5"/54 and 105mm White Phosphorus	8926		.122
Sunflower AAP DeSoto, KS	DS - Environmental Stabilization	8014/8108	.562	1.891
	TOTAL		3.525	3.235

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support
 P-1 Item Nomenclature: MAINTENANCE OF INACTIVE INDUSTRIAL FACILITIES (EP1500)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	353.5	22.0	15.4	15.8	13.0	12.3	10.8	9.7	9.9	10.1	0.0	472.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	353.5	22.0	15.4	15.8	13.0	12.3	10.8	9.7	9.9	10.1	0.0	472.5
Initial Spares												
Total Proc Cost	353.5	22.0	15.4	15.8	13.0	12.3	10.8	9.7	9.9	10.1	0.0	472.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 This line provides for the maintenance of laidaway portions of active plants, care and maintenance of laidaway plants, and the storage, protection, and maintenance of laidaway Government-owned equipment being stored on-site at contractor-owned plants. Detailed budget estimates, by location, are provided on the Program Cost Breakdown(P-5). The following is a summary of funds required:

- (1) Inactive Production Lines/Areas at Active Plants (FY 00 - \$6.1M) (FY 01 - \$6.5M)
- (2) Inactive Production Lines/Areas at Inactive Plants (FY 00 - \$6.9M) (FY 01 - \$5.8M)

JUSTIFICATION:
 Funds are used for the maintenance of laidaway ammunition industrial facilities to include utilities, buildings, nonseverable equipment, plant equipment, special tooling, and special test equipment 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.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support			P-1 Line Item Nomenclature: MAINTENANCE OF INACTIVE FACILITIES (EP1500)			Weapon System Type:			Date: February 1999			
Ammunition Cost Elements		ID	FY 98			FY 99			FY 00			FY 01		
		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
INACTIVE LINES AT ACTIVE PLANTS														
Crane Army Ammunition Activity (AAA)			100			100			168			170		
Holston Army Ammunition Plant (AAP)			1121			2326			1756			1705		
Iowa AAP			470			500			476			510		
Lake City AAP			378			110								
Lone Star AAP			563			401			608			700		
McAlester AAP			222			427			434			442		
Milan AAP			224			227			241			359		
Pine Bluff Arsenal			1249			700			700			700		
Radford AAP						1500			1729			1864		
Seneca/Hawthorne Army Depot			37			30			33			33		
SUBTOTAL			4364			6321			6145			6483		
INACTIVE PLANTS														
Badger AAP			1465			760			539			448		
Cornhusker AAP			47			45			50			50		
Indiana AAP						457			400			300		
Joliet AAP			58			69			84			86		
Kansas AAP			3190											
Longhorn AAP			792			500			250			250		
Louisiana AAP						1200			1000			800		
Mississippi AAP			2271			1699			800			300		
Newport AAP			89											
Ravenna AAP			309			301			300			291		
Riverbank AAP			1348			1362			956			956		
Scranton AAP			277			300			300			300		
Sunflower AAP						600			600			600		
Twin Cities AAP			43			220			300			300		
Volunteer AAP			1147			1935			1319			1179		
SUBTOTAL			11036			9448			6898			5860		
INACTIVE LINES AT CONTRACTOR PLANTS														
Alliant Techsystems, Incorporated														
AMRON Corporation (Antigo/Waukesha)														
Dayron			5			12								
Intercontinental Manufacturing Company														
SUBTOTAL			5			12								
TOTAL			15405			15781			13043			12343		

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support
 P-1 Item Nomenclature: CONVENTIONAL AMMUNITION DEMILITARIZATION (EP1800)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	356.6	95.4	89.6	82.7	86.3	84.4	83.0	81.5	82.8	84.3	0.0	1126.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	356.6	95.4	89.6	82.7	86.3	84.4	83.0	81.5	82.8	84.3	0.0	1126.7
Initial Spares												
Total Proc Cost	356.6	95.4	89.6	82.7	86.3	84.4	83.0	81.5	82.8	84.3	0.0	1126.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The conventional ammunition demilitarization program funds the disposal, demilitarization, and resource recovery and recycling of conventional ammunition. This program also funds the movement of ammunition and technical support for demilitarization projects at various installations, and the commercial contracts for resource recovery/demilitarization of excess, obsolete, and unserviceable ammunition. Safety demilitarization is also funded for those ammunition assets which have become unsafe for continued storage.

JUSTIFICATION: As of 30 Sep 98, the conventional ammunition demilitarization account contained over 518,600 short tons of ammunition. An increasing portion of the existing serviceable ammunition inventory of all Services is becoming excess to requirements. Additionally, ammunition which is in an unserviceable but repairable condition is being placed in the demilitarization account because the cost to repair is not supported by firm requirements. The net result of the changing situation has been a tremendous increase in the quantity of ammunition either currently requiring demilitarization or forecast to enter the demilitarization account. Future generations of ammunition into the demilitarization account are forecasted to approach 568,288 short tons over the next 6 years. Fiscal Year 1999 accomplishments are projected to be approximately 80,000 short tons; FY00 at 96,000; and FY01 at 97,000. The accumulation of ammunition requiring demilitarization has a direct impact on the Army's ability to effectively support contingency operations. Demilitarization stocks simply get in the way of mobility operations and Base Realignment and Closure actions – stocks must be moved into already crowded depot storage locations. Depot tiering requirements are impacted as demilitarization stocks are malpositioned for the end state assignments. There is also a safety consideration in that ammunition stocks are becoming older and potentially unstable. The demilitarization program has the capability to execute at funding levels well in excess of those proposed, but the proposed levels will at least minimize the worst impacts of an increasing demilitarization inventory. As the execution agent for demilitarization of ammunition from all Services, the Army must demonstrate a strong commitment to reduce the backlog and provide demilitarization support for future additions of ammunition into the demilitarization account.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION /Ammunition Production Base Support /			P-1 Line Item Nomenclature: CONVENTIONAL AMMUNITION DEMILITARIZATION (EP1800)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Tons	\$000	\$000	Tons	\$000	\$000	Tons	\$000	\$000	Tons	\$000
WP/PWP	CP	3029	5471				955	1000		1573	1665		
RIOT CONTROL	CR				290	198				730	500		
SMOKES,HC,COLORS,FS	CS	545	601										
DEP URANIUM/TUNGSTEN CARBIDE	DU				988	888	1207	1000		1112	1000		
INCENDIARY/THERMITE	FI						102	477		64	300		
PYROTECHNICS/ILLUMINATION/NON FRAG	FP	132	246				1494	3760					
HE COMPONENTS/DEVICES	HA						387	917		383	1134		
HE BOMBS	HB	6532	6849		1643	2927	3875	6795		8192	14596		
HE CARTRIDGES	HC	5292	7731										
HE EXPLOSIVE "D"	HD												
BULK HIGH EXPLOSIVES	HE	6485	6758										
HE GRENADES	HG						6	18					
HE DEPTH CHARGES	HH												
HE ICM/CBU AND SUBMUNITIONS WTV	HI	9050	32619		4451	19733	4809	11346		4287	19007		
HE MISSILES	HM				7	13				649	1237		
HE PROJECTILES AND WARHEADS	HP	689	2096		2124	2799	11735	15283		7137	9404		
HE ROCKETS	HR	99	291		629	2121	4	9		13	45		
TORPEDOES	HT						24	26		259	279		
DEMOLITION MATERIAL	HX	1083	1438		68	81				273	324		
HE LAND MINES	HZ	121	164										
INERT	I	531	932		182	303	4446	7410		2633	4388		
LARGE ROCKET MOTORS	LR3						297	920					
BULK PROP	PB				207	526	34	146					
PROPELLANT CHARGES AND INCREMENT	PC	1498	4173		2359	5205	5113	12857		5995	13228		
PROPELLANT MUNITIONS/COMPONENTS	PD	7243	5665				107	239					
SMALL ARMS AMMO THRU 20MM	SA	967	2963										
INCINERABLE MUNITIONS	SC									852	1643		
FUZES	SF	330	398										
MULTIPLE FAMILY	MU	36683	24706		65801	34387	44696	23523		43254	22765		
NO FAMILY	N	3568	699										
OCONUS DEMIL	OC	5724	5958		4000	10000	7000	10000		7000	5000		
TOTAL		89601	109758		82749	79181	86291	95726		84406	96515		

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support
 P-1 Item Nomenclature: ARMS INITIATIVE (EP2500)

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

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	159.5	29.9	24.0	4.8	4.8	4.7	4.7	4.7	4.8	4.9	0.0	246.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	159.5	29.9	24.0	4.8	4.8	4.7	4.7	4.7	4.8	4.9	0.0	246.8
Initial Spares												
Total Proc Cost	159.5	29.9	24.0	4.8	4.8	4.7	4.7	4.7	4.8	4.9	0.0	246.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The Armament Retooling and Manufacturing Support (ARMS) Initiative reuses idle capacity at active and reserve Government-owned, contractor-operated (GOCO) ammunition facilities through commercialization. Congress enacted this program in the Fiscal Year (FY) 1993 Defense Authorization Act, Public Law (PL) 102-484. ARMS uses financial incentives, such as facility strategic reuse plans; marketing plans; building modification; equipment relocation, alteration, or consolidation; environmental baseline studies; and loan guarantees. ARMS objectives include reducing facility operating/ownership costs, lowering facility maintenance, opportunities for small businesses, retaining critical skills, and sustaining economic development.

JUSTIFICATION: The Army's ammunition industrial manufacturing base is unique. It involves handling and processing of hazardous materials, represents a large investment, and requires critical skills. To meet the peacetime and replenishment mission challenges (minimal cost, high quality production efficiencies) in 1990, the Army initiated the facility-use contracting concept to attract Government (defense and non-defense) and commercial subcontractors to GOCO ammunition facilities with little success. The ARMS initiative became the catalyst to commercialize active and reserve ammunition facilities. This results in product diversification promoting a strong industrial base, enhancing efficiencies, and ensuring essential capabilities when required. It capitalizes on existing assets, while the Army benefits by lower maintenance and fixed overhead expenses. At the same time, industrial readiness is maintained resulting in a viable base for peacetime and replenishment needs.

Exhibit P-5, Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support			P-1 Line Item Nomenclature: ARMS INITIATIVE (EP2500)			Weapon System Type:			Date: February 1999		
Ammunition Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Financial Incentives		23461			4261			3682			3677		
Environmental Baselines		186			186								
Loan Guarantees		152			152			893			871		
Administrative Support		248			248			200			200		
TOTAL		24047			4847			4775			4748		
<p>Active and reserve Army Ammunition Plants are currently participating in the Armament, Retooling, and Manufacturing Support (ARMS) initiative and eligible to receive the incentives. As the Army continues to adjust ammunition industrial base configuration under the Production Base Assessment, facility eligibility may change. This requires transition and other business strategies to be developed for the ARMS Program.</p>													
		24047			4847			4775			4748		