

DEPARTMENT OF THE ARMY

Procurement Programs



Committee Staff Procurement Backup Book
FY 2001 Budget Estimate

PROCUREMENT OF AMMUNITION, ARMY

APPROPRIATION

February 2000

Index for PROCUREMENT OF AMMUNITION, ARMY

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7	CTG, .50 CAL, ALL TYPES	E08000	41722159.01P	61
10	CTG, 25MM, ALL TYPES	E08200	42650160.01P	75
11	CTG, 30MM, ALL TYPES	ER8120	42938159.01P	94
12	CTG, 40MM, ALL TYPES	ER8001	43222159.01P	101
13	NONLETHAL WEAPONS CAPABILITY SET	E91800	44026163.01P	121
14	60MM MORTAR, ALL TYPES	E89600	40050160.01P	125
15	CTG 81MM INFRARED (IR) ILLUM XM816	E90000	44770119.01P	153
17	CTG MORTAR 120MM FULL RANGE PRACTICE M931	E25507	46796119.01P	158
18	CTG MORTAR 120MM HE M934A1 W/MO FUZE	E25501	47086119.01P	163
19	CTG MORTAR 120MM ILLUM XM930 W/MTSQ FZ	E25503	48250119.01P	170
20	CTG 120MM WP SMOKE M929	E25504	25504119.01P	177
21	CTG 120MM WP SMOKE M929	E91300	48836119.01P	182
22	CTG 120MM APFSDS-T M829A2/M829E3	E78001	44262114.01P	189
23	CTG 120MM HEAT-MP-T M830A1	E78007	45822114.01P	194
24	CTG TANK 120MM TP-T M831/M831A1	E73300	47382159.01P	199
25	CTG TANK 120MM TPCSDS-T M865	E73400	47902159.01P	204
27	CTG ARTY 105MM BLANK M395	E21200	40962159.01P	209
28	CTG ARTY 105MM DPICM XM915	E53500	41178163.01P	213
30	CTG, ARTY, 105MM M927	E93300	41592159.01P	218
31	CTG ARTY 105MM ILLUM M314 SERIES	E21700	41822159.01P	223
32	PROJ ARTY 155MM SMOKE WP M825 (E67800)	E67800	43972160.01P	227
33	PROJ ARTY 155MM HE M795	E66800	45700114.01P	228
34	PROJ ARTY 155MM SADARM M898	E66300	46550114.01P	233
35	REMOTE AREA DENIAL ARTILLERY MUNITION (RADAM)	E67505	46560160.01P	238
36	PROJ ARTY 155MM HE M107	E27601	46767160.01P	243

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Blin	Nomenclature	SSN	Filename	Page Number
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38	ARTILLERY FUZES, ALL TYPES	ER8000	41506163.01P	254
39	MINE, TRAINING, ALL TYPES	EA0800	40442122.01P	274
40	MINE AT M87 (VOLCANO)	E72195	47922122.01P	276
41	WIDE AREA MUNITIONS	E78100	49622122.01P	281
42	BUNKER DEFEATING MUNITION (BDM)	E88400	42246163.01P	286
43	ROCKET, HYDRA 70, ALL TYPES	E37300	43246159.01P	293
44	DEMOLITION MUNITIONS, ALL TYPES	E55400	42790160.01P	314
45	GRENADES, ALL TYPES	E34000	44582160.01P	321
46	SIGNALS, ALL TYPES	E46900	46038160.01P	333
48	AMMO COMPONENTS, ALL TYPES	EB0016	40684159.01P	340
50	ITEMS LESS THAN \$5 MILLION	EA0055	42624159.01P	343
51	AMMUNITION PECULIAR EQUIPMENT	EA0575	44370159.01P	345
52	FIRST DESTINATION TRANSPORTATION (AMMO)	EA0550	44758159.01P	346
53	CLOSEOUT LIABILITIES	EA8500	49915160.01P	347
54	PROVISION OF INDUSTRIAL FACILITIES	EP1200	40572120.01P	348
55	LAYAWAY OF INDUSTRIAL FACILITIES	EP2000	42922120.01P	369
56	MAINTENANCE OF INACTIVE FACILITIES	EP1500	44096120.01P	371
57	CONVENTIONAL AMMO DEMILITARIZATION	EP1800	44100120.01P	373
58	ARMS INITIATIVE	EP2500	44150120.01P	375

DEPARTMENT OF THE ARMY
2001 PROCUREMENT PROGRAM

EXHIBIT P-1
February 2000

Appropriation: ****AMMUNITION****

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

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
				(7)	(8)	(9)	(10)	(11)	(12)
	SMALL/MEDIUM CALIBER AMMUNITION								
1	CTG, 5.56MM, ALL TYPES (E00700)	A			95,122		118,089		97,758
2	CTG 5.56MM ARMOR PIERCING M995 (F47600)	A		1,244	1,911	1,250	1,876	873	1,337
3	CTG, 7.62MM, ALL TYPES (E02000)	A			12,358		8,462		8,990
4	CTG 7.62MM ARMOR PIERCING XM993 (F47500)	A		914	1,911	600	1,344		
5	CTG, 9MM, ALL TYPES (EA3000)	A			2,042		975		2,487
6	CTG, .45 CAL, ALL TYPES (ER8110)	A			2				
7	CTG, .50 CAL, ALL TYPES (E08000)	A			17,258		23,191		10,646
8	CTG CAL .50 API MK211 MOD 0 (F47400)	A						254	1,987
9	CTG, 20MM, ALL TYPES (E08900)	A					2,743		2,004
10	CTG, 25MM, ALL TYPES (E08200)	A			82,048		47,229		57,780
11	CTG, 30MM, ALL TYPES (ER8120)	A			10,507		5,311		9,517
12	CTG, 40MM, ALL TYPES (ER8001)	A			33,322		44,175		60,788
13	NONLETHAL WEAPONS CAPABILITY SET (E91800)	B				5	7,926	5	8,397
	SUB-ACTIVITY TOTAL				256,481		261,321		261,691

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

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
				(7)	(8)	(9)	(10)	(11)	(12)
	MORTAR AMMUNITION								
14	60MM MORTAR, ALL TYPES (E89600)				26,907		23,311		28,673
15	CTG 81MM INFRARED (IR) ILLUM XM816 (E90000)	B		8	9,288				
16	CTG MORTAR 81MM PRAC 1/10 RANGE M880 (E19800)	A				46	2,868	24	930
17	CTG MORTAR 120MM FULL RANGE PRACTICE M931 (E25507)	A		73	29,488				
18	CTG MORTAR 120MM HE M934 W/MO FUZE (E25501)	A		50	36,775	65	48,847	62	45,031
19	CTG MORTAR 120MM ILLUM XM930 W/MTSQ FZ (E25503)	B		2	4,958	4	5,885		
20	CTG MORTAR 120MM SMOKE, M929 W/MO FUZE (E25504)	B				8	7,463		
21	CTG 120MM WP SMOKE M929A1 (E91300)					56	51,571	26	24,969
	SUB-ACTIVITY TOTAL				107,416		139,945		99,603
	TANK AMMUNITION								
22	CTG 120MM APFSDS-T M829A2/M829E3 (E78001)	A		3	14,609	7	31,387		
23	CTG 120MM HEAT-MP-T M830A1 (E78007)	A		2	10,916	2	14,713		
24	CTG TANK 120MM TP-T M831/M831A1 (E73300)	A		105	58,276	57	32,367	87	48,477

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Appropriation: ****AMMUNITION****

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

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
				(7)	(8)	(9)	(10)	(11)	(12)
25	CTG TANK 120MM TPCSDS-T M865 (E73400)	A		240	122,816	165	85,352	199	101,512
	SUB-ACTIVITY TOTAL				206,617		163,819		149,989
	ARTILLERY AMMUNITION								
26	CTG ARTY 75MM BLANK M337A1 (E15200)	A		34	1,554	64	2,550	40	1,807
27	CTG ARTY105MM BLANK M395 (E21200)	A				124	6,721		
28	CTG ARTY 105MM DPICM XM915 (E53500)	B				3	4,904		
29	CTG ARTY 105MM HERA M913 (E53700)	A			306				
30	CTG, ARTY 105MM M927 (E93300)	A		7	4,958				
31	CTG ARTY 105MM ILLUM M314 SERIES (E21700)	A				12	7,937		130
32	PROJ ARTY 155MM SMOKE WP M825 (E67800)	A					14,569		14,682
33	PROJ ARTY 155MM HE M795 (E66800)	A				17	9,783		
34	PROJ ARTY 155MM SADARM M898 (E66300)	B		30	31,275		14,938		14,907
35	REMOTE AREA DENIAL ARTILLERY MUNITION (RADAM) (E67505)						7,967	117	47,674
36	PROJ ARTY 155MM HE M107 (E27601)	A		243	42,336	118	24,881	175	35,178
37	MODULAR ARTILLERY CHARGE SYSTEM (MACS) (ER8021)	B				367	42,601	164	27,432
	SUB-ACTIVITY TOTAL				80,429		136,851		141,810

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EXHIBIT P-1
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Appropriation: ****AMMUNITION****

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

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
				(7)	(8)	(9)	(10)	(11)	(12)
	ARTILLERY FUZES								
38	ARTILLERY FUZES, ALL TYPES (ER8000) (E61200)	A			6,794		45,741		67,005
	SUB-ACTIVITY TOTAL				----- 6,794		----- 45,741		----- 67,005
	MINES								
39	MINE, TRAINING, ALL TYPES (EA0800)	B			1,114		8,003		3,892
40	MINE AT M87 (VOLCANO) (E72195)	A		3	11,898	4	17,655		
41	WIDE AREA MUNITIONS (E78100)	B		65	9,544	115	15,191	58	7,284
	SUB-ACTIVITY TOTAL				----- 22,556		----- 40,849		----- 11,176
	ROCKETS								
42	BUNKER DEFEATING MUNITION (BDM) (E88400)	B			9,916		9,808		
43	ROCKET, HYDRA 70, ALL TYPES (E37300)	A			122,790		143,624		152,767
	SUB-ACTIVITY TOTAL				----- 132,706		----- 153,432		----- 152,767
	OTHER AMMUNITION								
44	DEMOLITION MUNITIONS, ALL TYPES (E55400)	A			11,641		11,157		16,603
45	GRENADES, ALL TYPES (E34000)	B			20,747		13,295		20,260
46	SIGNALS, ALL TYPES (E46900)	A			5,093		9,705		13,067

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EXHIBIT P-1
February 2000

Appropriation: ****AMMUNITION****

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

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
				(7)	(8)	(9)	(10)	(11)	(12)
47	SIMULATORS, ALL TYPES (E51200)	A			3,653		2,248		3,053
	SUB-ACTIVITY TOTAL				41,134		36,405		52,983
	MISCELLANEOUS								
48	AMMO COMPONENTS, ALL TYPES (EB0016)	A			3,712		6,821		6,750
49	CAD/PAD ALL TYPES (EA0003)	A			2,399		2,905		4,298
50	ITEMS LESS THAN \$5 MILLION (EA0055)	A			6,352		7,599		10,145
51	AMMUNITION PECULIAR EQUIPMENT (EA0575)	A			10,281		10,596		9,476
52	FIRST DESTINATION TRANSPORTATION (AMMO) (EA0550)	A			5,223		5,261		5,118
53	CLOSEOUT LIABILITIES (EA8500)				125,200				5,764
	SUB-ACTIVITY TOTAL				153,167		33,182		41,551
	ACTIVITY TOTAL				1,007,300		1,011,545		978,575

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EXHIBIT P-1
February 2000

Appropriation: ****AMMUNITION****

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

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
				(7)	(8)	(9)	(10)	(11)	(12)
	PRODUCTION BASE SUPPORT								
54	PROVISION OF INDUSTRIAL FACILITIES (EP1000)				45,276		52,910		47,748
55	LAYAWAY OF INDUSTRIAL FACILITIES (EP2000)				20,133		3,497		3,215
56	MAINTENANCE OF INACTIVE FACILITIES (EP1500)				17,746		12,941		12,267
57	CONVENTIONAL AMMO DEMILITARIZATION (EP1800)				82,281		85,614		84,799
58	ARMS INITIATIVE (EP2500)				9,819		26,418		4,719
	SUB-ACTIVITY TOTAL				175,255		181,380		152,748
	ACTIVITY TOTAL				175,255		181,380		152,748
	APPROPRIATION TOTAL				1,182,555		1,192,925		1,131,323

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	95.1	118.1	97.8	102.3	96.2	91.8	91.5	0.0	2465.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1666.0	40.7	66.3	95.1	118.1	97.8	102.3	96.2	91.8	91.5	0.0	2465.8
Initial Spares												
Total Proc Cost	1666.0	40.7	66.3	95.1	118.1	97.8	102.3	96.2	91.8	91.5	0.0	2465.8
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 2000		
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
CTG 5.56MM RIFLE LAUNCHER, NON-LE1				2263	15	150.87	3885	57	72.45	6370	104	61.20	
CTG 5.56MM BALL M193 (A071)							5080	19499	0.26	17			
CTG 5.56MM BALL M193 (A066)				12764	55649	0.23	13493	57921	0.23	51			
CTG 5.56MM BLANK M200				10158	31336	0.32	2043	10863	0.19	5955	55614	0.11	
CTG 5.56MM BLANK M200 LINKED				12386	32215	0.38	17988	61049	0.29	15111	60548	0.25	
CTG 5.56MM BALL M855 LINKED				7962	16317	0.49	10647	29182	0.36	2038	6250	0.33	
CTG 5.56MM 4 BALL M855/1 TRACER				16013	31588	0.51	32027	79802	0.40	36614	69459	0.53	
CTG 5.56MM BALL M855 F/M16A2				31005	78149	0.40	32926	107418	0.31	31602	149295	0.21	
CTG 5.56MM TRACER M856 F/M16A2				2571	4117	0.62							
TOTAL				95122			118089			97758			

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

CTG 5.56MM RIFLE LAUNCHER NON-LETHAL XM9 (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				15	57	104	112					288
Gross Cost	0.0	0.0	0.0	2.3	3.9	6.4	6.5	0.0	0.0	0.0	0.0	19.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	2.3	3.9	6.4	6.5	0.0	0.0	0.0	0.0	19.0
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	2.3	3.9	6.4	6.5	0.0	0.0	0.0	0.0	19.0
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 M16A2 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 FY01 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: TC LRIP August 1999

TC STD August 2000

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 XM9 (E91100)			Weapon System Type:			Date: February 2000		
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. Complete Round M95					1661	15	110.73	3355	57	58.86	5785	104	55.63
SubTotal AMMO Hardware					1661			3355			5785		
Production Support Costs													
1. Production Engineering					257			300			300		
2. Quality Assurance					112			115			115		
3. Acceptance Testing					53			115			115		
SubTotal Prod. Support					422			530			530		
COST - Nonrecurring													
1. Initial Production Test					140								
2. Change of Production Line Qualification					40						55		
SubTotal COST-Nonrecurring					180						55		
TOTAL					2263		150.87	3885		68.16	6370		61.25

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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 XM9 (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	Feb-00	Sep-00	15	110.73	YES		
FY 00	Alliant Techsystems, MN	SS/Option	TACOM-ARDEC	Aug-00	Dec-00	57	58.86	YES		
FY 01	Alliant Techsystems, MN	SS/Option	TACOM-ARDEC	Jan-01	Apr-01	104	55.63			

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	55649	77420							12938919
Gross Cost	891.7	3.8	6.0	12.8	18.6	0.1	0.0	0.0	0.0	0.0	0.0	932.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	891.7	3.8	6.0	12.8	18.6	0.1	0.0	0.0	0.0	0.0	0.0	932.7
Initial Spares												
Total Proc Cost	891.7	3.8	6.0	12.8	18.6	0.1	0.0	0.0	0.0	0.0	0.0	932.7
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. Procurement supports annual peacetime training and builds 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 2000			
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									4857	19499	0.25			
Box Metal M2A1									146	24	6.15			
SubTotal AMMO Hardware									5003					
Production Support Costs														
Production Engineering									41			17		
Quality Assurance									3					
Interim Transportation									3					
Industrial Stock Support									30					
SubTotal Prod. Support									77			17		
TOTAL									5080		0.26	17		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jan-00	Oct-00	19499	0.25	Y		Oct 99
Box Metal M2A1 FY 00	TBS	C/FP	IOC	Mar-00	Jul-00	24	6.15	Y		Oct 99

REMARKS: TBS - To Be Selected

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: CTG 5.56MM BALL M193 (E00701) (A071)												Date: February 2000							
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												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		OCT	NOV	DEC	JAN	FEB	MAR
Load, Assemble, and Pack																									
	1	00	A	19.5	19.5																				
	2	99P	AF	20.5	20.5																				
	2	99P	AF	3.6	3.6																				
	1	99	AF	3.6	3.6																				
	1	00	AF	15.6	15.6																				
	1	01	AF	15.9		15.9	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	
		99P	ALL	20.5	20.5																				
		99	ALL	7.2	7.2																				
		00	ALL	35.1	35.1																				
		01	ALL	15.9		15.9	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.0

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 2000		
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					10852	55649	0.20	12685	57921	0.22			
Box Metal M2A1					387	70	5.57	445	72	6.15			
SubTotal AMMO Hardware					11239			13130					
Production Support Costs													
Production Engineering					1287			160			51		
Quality Assurance					7			5					
Interim Transportation					6			8					
Industrial Stock Support					225			190					
SubTotal Prod. Support					1525			363			51		
TOTAL					12764		0.23	13493		0.23	51		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Mar-99	Oct-99	23714	0.20			Jan 99	
FY 99	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jul-99	Apr-00	31935	0.20			May 99	
FY 00	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jan-00	Oct-00	57921	0.22	Y		Oct 99	
Box Metal M2A1 FY 99	Brockway Standard Homerville, GA	C/FP	IOC	Mar-99	Sep-99	70	5.57			Jan 99	
FY 00	TBS	C/FP	IOC	Mar-00	Jul-00	72	6.15	Y		Oct 99	

REMARKS: TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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			31336	10863	55614	75123	74969	74941	73976		3530580
Gross Cost	291.7	0.0	0.0	10.2	2.0	6.0	8.0	8.1	8.7	8.4	0.0	343.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	291.7	0.0	0.0	10.2	2.0	6.0	8.0	8.1	8.7	8.4	0.0	343.1
Initial Spares												
Total Proc Cost	291.7	0.0	0.0	10.2	2.0	6.0	8.0	8.1	8.7	8.4	0.0	343.1
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. FY01 procurement supports 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 2000		
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					4675	31336	0.15	1822	10862	0.17	5367	55614	0.10
Box Metal M2A1					155	28	5.57	59	10	6.15	320	49	6.47
SubTotal AMMO Hardware					4830			1881			5687		
Production Support Costs													
Production Engineering					5225			130			168		
Quality Assurance					4			4			15		
Interim Transportation					2			1			3		
Industrial Stock Support					97			27			82		
SubTotal Prod. Support					5328			162			268		
TOTAL					10158		0.32	2043		0.19	5955		0.11

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jul-99	Apr-00	17246	0.15			Feb 99
FY 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Sep-99	Jan-00	14090	0.15			Jul 99
FY 00	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jan-00	Oct-00	10863	0.17	Y		Oct 99
FY 01	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Nov-00	Oct-01	55614	0.10	Y		Oct 00
Box Metal M2A1 FY 99	Brockway Standard Homerville, GA	C/FP	IOC	Mar-99	Sep-99	28	5.57			Jan 99
FY 00	TBS	C/FP	IOC	Mar-00	Jul-00	10	6.15	Y		Oct 99
FY 01	TBS	C/FP	IOC	Jan-01	Jul-01	49	6.47	Y		Oct 00

REMARKS: TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	32215	61049	60548	58490	60280	27560	26545		578399
Gross Cost	54.1	1.0	13.5	12.4	17.9	15.1	14.7	15.3	7.2	7.2	0.0	158.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	54.1	1.0	13.5	12.4	17.9	15.1	14.7	15.3	7.2	7.2	0.0	158.4
Initial Spares												
Total Proc Cost	54.1	1.0	13.5	12.4	17.9	15.1	14.7	15.3	7.2	7.2	0.0	158.4
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. FY01 procurement supports annual peacetime training and builds 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 2000			
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					11559	32215	0.36	17600	61049	0.29	14719	60548	0.24	
SubTotal AMMO Hardware					11559			17600			14719			
Production Support Costs														
Production Engineering					592			128			142			
Quality Assurance					4			5			37			
Industrial Stock Support					231			255			213			
SubTotal Prod. Support					827			388			392			
TOTAL					12386		0.38	17988		0.29	15111		0.25	

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Mar-99	Oct-99	15540	0.36			Jan 99
FY 99	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jul-99	Apr-00	16675	0.36			Feb 99
FY 00	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jan-00	Oct-00	61049	0.29	Y		Oct 99
FY 01	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Nov-00	Oct-01	60548	0.24	Y		Oct 00

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	16317	29182	6250	12572	8068	11426	9997		149558
Gross Cost	16.1	0.0	4.4	8.0	10.6	2.0	4.0	2.8	3.6	3.6	0.0	55.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	16.1	0.0	4.4	8.0	10.6	2.0	4.0	2.8	3.6	3.6	0.0	55.1
Initial Spares												
Total Proc Cost	16.1	0.0	4.4	8.0	10.6	2.0	4.0	2.8	3.6	3.6	0.0	55.1
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. FY01 procurement supports annual peacetime training and builds 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 2000		
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					7289	16316	0.45	10351	29182	0.35	1919	6250	0.31
SubTotal AMMO Hardware					7289			10351			1919		
Production Support Costs													
Production Engineering					523			142			86		
Quality Assurance					4			4			5		
Industrial Stock Support					146			150			28		
SubTotal Prod. Support					673			296			119		
TOTAL					7962		0.49	10647		0.36	2038		0.33

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Mar-99	Jun-99	12453	0.45			Jan 99
FY 99	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jul-99	Apr-00	3864	0.45			May 99
FY 00	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jan-00	Oct-00	29182	0.35	Y		Oct 99
FY 01	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Nov-00	Oct-01	6250	0.31	Y		Oct 00

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	31588	79802	69459	64634	63369	64082	62436		762833
Gross Cost	106.3	19.1	0.7	16.0	32.0	36.6	34.3	34.1	35.0	34.9	0.0	349.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	106.3	19.1	0.7	16.0	32.0	36.6	34.3	34.1	35.0	34.9	0.0	349.0
Initial Spares												
Total Proc Cost	106.3	19.1	0.7	16.0	32.0	36.6	34.3	34.1	35.0	34.9	0.0	349.0
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 which 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. FY01 procurement supports annual peacetime training and builds 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 2000		
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					15586	31588	0.49	31426	79802	0.39	35959	69459	0.52
SubTotal AMMO Hardware					15586			31426			35959		
Production Support Costs													
Production Engineering					81			141			44		
Quality Assurance					34			4			90		
Industrial Stock Support					312			456			521		
SubTotal Prod. Support					427			601			655		
TOTAL					16013		0.51	32027		0.40	36614		0.53

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Feb-99	May-99	18110	#.49			Dec 98
FY 99	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jul-99	Apr-00	13478	#.59			Feb 99
FY 00	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jan-00	Oct-00	79802	0.39	Y		Oct 99
FY 01	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Nov-00	Oct-01	69459	0.52	Y		Oct 00

REMARKS: # Actual Contract Price for multiple producers

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	78149	107418	149295	156730	156452	156838	150272		2044501
Gross Cost	244.6	16.8	38.1	31.0	32.9	31.6	33.5	33.7	34.0	34.0	0.0	530.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	244.6	16.8	38.1	31.0	32.9	31.6	33.5	33.7	34.0	34.0	0.0	530.2
Initial Spares												
Total Proc Cost	244.6	16.8	38.1	31.0	32.9	31.6	33.5	33.7	34.0	34.0	0.0	530.2
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. FY01 procurement supports annual peacetime training and builds 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 2000		
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	x1mil	\$	\$000	x1mil	\$	\$000	x1mil	\$	\$000	x1mil	\$
AMMUNITION HARDWARE													
Load, Assemble, and Pack					27594	78	0.35	30850	107	0.29	29725	149	0.20
Box Metal M2A1					578		6.06	806		6.15	1179		6.47
SubTotal AMMO Hardware					28172			31656			30904		
Production Support Costs													
Production Engineering					2190			716			161		
Quality Assurance					72			80			77		
Interim Transportation					8			15			12		
Industrial Stock Support					563			459			448		
SubTotal Prod. Support					2833			1270			698		
TOTAL					31005		0.40	32926		0.31	31602		0.21

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Feb-99	Sep-99	38	0.35			Dec 98
FY 99	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jul-99	Apr-00	40	0.35			May 99
FY 00	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jan-00	Oct-00	107	0.29	Y		Oct 99
FY 01	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Nov-00	Oct-01	149	0.20	Y		Oct 00
Box Metal M2A1 FY 99	Brockway Standard Homerville, GA	C/FP	IOC	Mar-99	Jul-99		6.06			Jan 99
FY 00	TBS	C/FP	IOC	Mar-00	Jul-00		6.15	Y		Oct 99
FY 01	TBS	C/FP	IOC	Jan-01	Jul-01		6.47	Y		Oct 00

REMARKS: TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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	9.0	15.4	15.6	30.9	31.4	0.0	1467.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1330.9	12.0	1.1	12.4	8.5	9.0	15.4	15.6	30.9	31.4	0.0	1467.2
Initial Spares												
Total Proc Cost	1330.9	12.0	1.1	12.4	8.5	9.0	15.4	15.6	30.9	31.4	0.0	1467.2
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 2000		
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
CTG 7.62MM 4 BALL/1 TRACER F/MINIGUN					6044	11622	0.52	1650	4273	0.39	1682	3395	0.50
CTG 7.62MM BALL M80 LINKED/M13					48			2421	5405	0.45	3414	6219	0.55
CTG 7.62MM 4 BALL/1 TRACER F/OHF					5699	11630	0.49	1103	1931	0.57	945	1971	0.48
CTG 7.62MM BLANK M82 LINKED/M13								3259	8861	0.37	2530	6862	0.37
CTG 7.62MM SHORT RANGE TNG 4B/1T					567	260		29	51		419	301	
TOTAL													
					12358			8462			8990		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	11630	8861	6862	15930	15995	15961	15940		1994642
Gross Cost	232.6	0.0	0.5	5.7	3.3	2.5	5.7	5.7	5.7	5.9	0.0	267.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	232.6	0.0	0.5	5.7	3.3	2.5	5.7	5.7	5.7	5.9	0.0	267.6
Initial Spares												
Total Proc Cost	232.6	0.0	0.5	5.7	3.3	2.5	5.7	5.7	5.7	5.9	0.0	267.6
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. FY 01 procurement supports annual peacetime training and builds 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 2000		
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					5395	11630	0.46	2893	8861	0.33	2294	6862	0.33
SubTotal AMMO Hardware					5395			2893			2294		
Production Support Costs													
Production Engineering					180			319			168		
Quality Assurance					5			5			35		
Industrial Stock Support					119			42			33		
SubTotal Prod. Support					304			366			236		
TOTAL					5699		0.49	3259		0.37	2530		0.37

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Sep-99	Jan-00	4090	#0.46			
FY 99	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jul-99	Apr-00	7540	#0.46			
FY 00	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jan-00	Oct-00	8861	0.33	Y		Oct 99
FY 01	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Nov-00	Oct-01	6862	0.33	Y		Oct 00

REMARKS: TBS - TO BE SELECTED
Actual contract price for multiple producers

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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		11662	5405	6219	9908	9782	9782	9773		253735
Gross Cost	55.8	3.2	0.0	6.0	2.4	3.4	5.4	5.4	5.5	5.6	0.0	92.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	55.8	3.2	0.0	6.0	2.4	3.4	5.4	5.4	5.5	5.6	0.0	92.7
Initial Spares												
Total Proc Cost	55.8	3.2	0.0	6.0	2.4	3.4	5.4	5.4	5.5	5.6	0.0	92.7
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 01 procurement supports 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 2000		
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					5865	11662	0.50	2183	5405	0.40	3206	6219	0.52
SubTotal AMMO Hardware					5865			2183			3206		
Production Support Costs													
Production Engineering					52			203			132		
Quality Assurance					2			3			30		
Industrial Stock Support					125			32			46		
SubTotal Prod. Support					179			238			208		
TOTAL					6044		0.52	2421		0.45	3414		0.55

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Mar-99	Oct-99	5288	#.41			
FY 99	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jul-99	Apr-00	6334	#.41			
FY 00	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Jan-00	Oct-00	5405	0.40	Y		Sep 99
FY 01	Alliant (Lake City AAP) Independence, MO	SS/FP	IOC	Nov-00	Oct-01	6219	0.52	Y		Oct 00

REMARKS: TBS - TO BE SELECTED
Actual contract price for multiple producers.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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	17.3	23.2	10.6	24.7	29.2	27.0	26.5	0.0	586.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	409.6	4.9	13.0	17.3	23.2	10.6	24.7	29.2	27.0	26.5	0.0	586.1
Initial Spares												
Total Proc Cost	409.6	4.9	13.0	17.3	23.2	10.6	24.7	29.2	27.0	26.5	0.0	586.1
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 2000		
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
CTG CAL .50 BALL M33 W/M9 LINK					3662	1451	2.51	2603	1583	1.64	5928	2310	2.57
CTG CAL .50 4 BALL/1 TRACER W/M9 LINK					13596	4944	2.75	20588	12257	1.68	4718	1555	3.03
TOTAL					17258			23191			10646		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	4944	12257	1555	6793	6563	6514	6331		438871
Gross Cost	282.9	4.9	9.2	13.6	20.6	4.7	19.2	18.8	19.0	19.0	0.0	411.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	282.9	4.9	9.2	13.6	20.6	4.7	19.2	18.8	19.0	19.0	0.0	411.9
Initial Spares												
Total Proc Cost	282.9	4.9	9.2	13.6	20.6	4.7	19.2	18.8	19.0	19.0	0.0	411.9
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. FY01 procurement supports annual peacetime training and builds 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 2000		
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					12742	4944	2.58	19378	12257	1.58	4094	1555	2.63
Box Metal M2A1					306	50	6.06	769	125	6.15	103	16	6.47
SubTotal AMMO Hardware					13048			20147			4197		
Production Support Costs													
Production Engineering					117			130			410		
Quality Assurance					5			5			49		
Acceptance Testing					161								
Interim Transportation					4			14			1		
Industrial Stock Support					261			292			61		
SubTotal Prod. Support					548			441			521		
TOTAL					13596		2.75	20588		1.68	4718		3.03

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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 99	Olin Corp (Lake City AAP) Independence, MO	SS/CPAF	IOC	Mar-99	Oct-99	2261	#1.38			Jan 99
FY 99	Alliant (LCAAP) Independence, MO	SS/FP	IOC	Jul-99	Apr-00	2683	#1.38			May 99
FY 00	Alliant (LCAAP) Independence, MO	SS/FP	IOC	Jan-00	Oct-00	12257	1.58	Yes		Oct 99
FY 01	Alliant (LCAAP) Independence, MO	SS/FP	IOC	Nov-00	Oct-01	1555	2.63	Yes		Oct 00
Box Metal M2A1 FY 99	Brockway Standard Homerville, GA	C/FP	IOC	Apr-99	Aug-99	50	6.06			Feb 99
FY 00	TBS	C/FP	IOC	Mar-00	Jul-00	125	6.15	Yes		Oct 99
FY 01	TBS	C/FP	IOC	Jan-01	Jul-01	16	6.47	Yes		Oct 00

REMARKS: #Actual contract price for multiple producers
TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG CAL .50 BALL M33 W/M9 LINK (E07100)

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	34081		447	1451	1583	2310	2143	2033	1939	1959		47946
Gross Cost	43.8	0.0	0.9	3.7	2.6	5.9	5.5	5.3	5.2	5.3	0.0	78.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	43.8	0.0	0.9	3.7	2.6	5.9	5.5	5.3	5.2	5.3	0.0	78.1
Initial Spares												
Total Proc Cost	43.8	0.0	0.9	3.7	2.6	5.9	5.5	5.3	5.2	5.3	0.0	78.1
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The caliber .50 ball M33 is linked with the M9 links for use in Army training with caliber .50 machine guns, M2 and M3. These rounds are also used in function test firing of the M2 and M3 machine guns. This item is Code A, approved for service use.

JUSTIFICATION:

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

TYPE CLASSIFICATION DATE:

1951

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 BALL M33 W/M9 LINK (E07100)			Weapon System Type:			Date: February 2000		
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					3364	1451	2.32	2276	1583	1.44	5473	2310	2.37
Box Metal M2A1					90	15	6.06	99	16	6.15	153	24	6.47
SubTotal AMMO Hardware					3454			2375			5626		
Production Support Costs													
Production Engineering					115			188			206		
Quality Assurance					3			4			12		
Acceptance Testing					20								
Interim Transportation					1			2			2		
Industrial Stock Support					69			34			82		
SubTotal Prod. Support					208			228			302		
TOTAL					3662		2.51	2603		1.64	5928		2.57

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG CAL .50 BALL M33 W/M9 LINK (E07100)					
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 (LCAAP) Independence, MO	SS/CPAF	IOC	Mar-99	Oct-99	583	#1.27			Jan 99
FY 99	Alliant (LCAAP) Independence, MO	SS/FP	IOC	Jul-99	Apr-00	868	#1.27			May 99
FY 00	Alliant (LCAAP) Independence, MO	SS/FP	IOC	Jan-00	Oct-00	1583	1.44	Yes		Oct 99
FY 01	Alliant (LCAAP) Independence, MO	SS/FP	IOC	Nov-00	Oct-01	2310	2.37	Yes		Oct 00
Box Metal M2A1 FY 99	Brockway Standard Homerville, GA	C/FP	IOC	Apr-99	Aug-99	15	6.06	Yes		Feb 99
FY 00	TBS	C/FP	IOC	Mar-00	Jul-00	16	6.15	Yes		Oct 99
FY 01	TBS	C/FP	IOC	Jan-01	Jul-01	24	6.47	Yes		Oct 00

REMARKS: TBS - To Be Selected
Actual contract price for multiple producers

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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	82.0	47.2	57.8	40.0	40.4	40.7	41.0	0.0	1582.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1076.7	79.9	77.2	82.0	47.2	57.8	40.0	40.4	40.7	41.0	0.0	1582.9
Initial Spares												
Total Proc Cost	1076.7	79.9	77.2	82.0	47.2	57.8	40.0	40.4	40.7	41.0	0.0	1582.9
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 2000		
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
CTG 25MM TP-T M793					17548	1228	14.29	16365	1216	13.46	15819	1132	13.97
CTG 25MM TPDS-T M910					42892	2558	16.76	579	35	16.75	18311	1109	16.51
CTG 25MM APFSDS-T M919					20623	160	128.89	30285	253	119.70	23650	209	118.25
CTG 25MM APDS-T M791					985	65	15.23						
TOTAL					82048			47229			57780		

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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	1228	1216	1132	1193	1205	1066	1067		28009
Gross Cost	256.0	7.2	19.6	17.5	16.4	15.8	16.0	16.1	16.4	16.8	0.0	397.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	256.0	7.2	19.6	17.5	16.4	15.8	16.0	16.1	16.4	16.8	0.0	397.8
Initial Spares												
Total Proc Cost	256.0	7.2	19.6	17.5	16.4	15.8	16.0	16.1	16.4	16.8	0.0	397.8
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. FY01 procurement supports 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 25MM TP-T M793 (E08203)			Weapon System Type:			Date: February 2000		
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					13639	1228	11.10	13500	1216	11.10	12568	1132	11.10
Container PA125					1777	41	43.31	1785	41	43.96	1634	38	43.23
Pallet Steel w/Adapter					398	1	404.76	400	1	410.84	374	1	412.88
SubTotal AMMO Hardware					15814			15685			14576		
Production Support Costs													
Production Engineering					745			408			1001		
Quality Assurance					4			5			11		
Acceptance Testing					637								
Interim Transportation					32			40			20		
Industrial Stock Support					316			227			211		
SubTotal Prod. Support					1734			680			1243		
TOTAL					17548		14.29	16365		13.46	15819		13.97

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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 99	Primex Tech, Marion IL	CM-1/FP	IOC	Aug-99	Jun-00	675	10.90 #			May 99	
FY 99*	Alliant Tech (JAAP), Joliet, IL	CM-1/FP	IOC	Aug-99	Jun-00	553	12.45#			May 99	
FY 00*	TBS	CM-2/FP	IOC	Mar-00	May-01	1216	11.10	Y		Oct 99	
FY 01*	TBS	CM-3/FP	IOC	Mar-01	May-02	1132	11.10	Y		Oct 00	
Container PA125											
FY 99	Conco INC Louisville KY	C/FP	IOC	Aug-99	Mar-00	41	43.31			May 99	
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	38	43.23	Y		Oct 00	
Pallet Steel w/Adapter											
FY 99	Behlen Mfg, Columbus, NE	C/FP	IOC	Sep-99	Mar-00	1	404.76	Y		Jun 99	
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	412.88	Y		Oct 00	

REMARKS: TBS - To Be Selected
 *This is a below-threshold 3-year Multiyear contract.
 # Actual contract price for multiple producers

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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	1390	2558	35	1109	1527	1544	1337	1299		24943
Gross Cost	209.4	39.9	27.6	42.9	0.6	18.3	24.0	24.3	24.2	24.2	0.0	435.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	209.4	39.9	27.6	42.9	0.6	18.3	24.0	24.3	24.2	24.2	0.0	435.4
Initial Spares												
Total Proc Cost	209.4	39.9	27.6	42.9	0.6	18.3	24.0	24.3	24.2	24.2	0.0	435.4
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. FY01 procurement supports annual peacetime training and builds 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 2000		
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													
Load, Assemble, and Pack					34330	2558	13.42	464	35	13.42	14881	1109	13.42
Container PA125					3696	85	43.25	51	1	43.96	1601	37	43.23
Pallet Steel w/Adapter					830	2	405.27	12		410.84	367	1	412.88
SubTotal AMMO Hardware					38856			527			16849		
Production Support Costs													
Production Engineering					3204			43			1188		
Quality Assurance					4						10		
Interim Transportation					68			1			20		
Industrial Stock Support					760			8			244		
SubTotal Prod. Support					4036			52			1462		
TOTAL					42892		16.76	579		16.75	18311		16.51

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	TBS	CM-2/FP	IOC	Mar-00	May-01	207	13.42			Dec 99
FY 99	Primex Tech, Marion, IL	CM-1/FP	IOC	Aug-99	Aug-00	1293	13.05#			May 99
FY 99	Alliant Tech (JAAP), Joliet IL	CM-1/FP	IOC	Aug-99	Aug-00	1058	14.39#			May 99
FY 00	TBS	CM-2/FP	IOC	Mar-00	May-01	35	13.42	Y		Oct 99
FY 01	TBS	CM-3/FP	IOC	Mar-01	May-02	1109	13.42	Y		Oct 00
Container PA125										
FY 99	TBS	C/FP	IOC	Jul-00	Mar-01	7	42.61			Apr 00
FY 99	Conco, Inc, Louisville, KY	C/FP	IOC	Aug-99	Mar-00	79	43.31			Oct 99
FY 00	TBS	C/FP	IOC	Jul-00	Mar-01	1	43.96	Y		Apr 99
FY 01	TBS	C/FP	IOC	Jul-01	Mar-02	37	43.23	Y		Oct 00
Pallet Steel w/Adapter										
FY 99	TBS	C/FP	IOC	Jul-00	Mar-01		407.00			Apr 00
FY 99	Behlen MFG, Columbus, NE	C/FP	IOC	Sep-99	Mar-00	2	404.76			Jun 99
FY 00	TBS	C/FP	IOC	Jul-00	Mar-01		410.84	Y		Oct 99
FY 01	TBS	C/FP	IOC	Jul-01	Mar-02	1	412.88	Y		Oct 00

REMARKS: TBS - To Be Selected
 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.
 # Actual contract price for multiple producers

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	689	249	242	160	253	209						1802
Gross Cost	104.7	32.8	30.0	20.6	30.3	23.7	0.0	0.0	0.0	0.0	0.0	242.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	104.7	32.8	30.0	20.6	30.3	23.7	0.0	0.0	0.0	0.0	0.0	242.1
Initial Spares												
Total Proc Cost	104.7	32.8	30.0	20.6	30.3	23.7	0.0	0.0	0.0	0.0	0.0	242.1
Flyaway U/C												
Wpn Sys Proc U/C	152.0	134.0	124.0	129.0	117.0	113.0						135.0

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, aluminum sabot, and improved depleted uranium penetrator material. This item is code A, approved for service use.

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 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.

Acquisition Manager: Project Manager, Tank and Medium-Cal Armament Systems (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 2000		
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													
1. Complete Round					17401	160	109	27026	253	107	21149	209	101
2. Other Hardware					585			684			665		
SubTotal AMMO Hardware					17986			27710			21814		
Production Support Costs													
Production Engineering					1224			875			1141		
Quality Assurance					295			270			255		
Acceptance Testing					498			475			440		
SubTotal Prod. Support					2017			1620			1836		
COST - Nonrecurring													
ECP's					620			955					
SubTotal COST-Nonrecurring					620			955					
TOTAL					20623		129	30285		120	23650		113

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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 Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. COMPLETE ROUND										
FY99	PRIMEX-MARION,IL	SS/FP	ARDEC	Aug-99	Mar-00	160	109	yes	no	
FY00	PRIMEX-MARION,IL	SS/FP	ARDEC	Jan-00	Sep-00	253	107	yes	no	
FY01	PRIMEX-MARION,IL	SS/FP	ARDEC	Jan-01	Jul-01	209	101	yes	no	

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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	10.5	5.3	9.5	9.8	9.7	9.9	10.1	0.0	319.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	231.7	13.0	10.0	10.5	5.3	9.5	9.8	9.7	9.9	10.1	0.0	319.5
Initial Spares												
Total Proc Cost	231.7	13.0	10.0	10.5	5.3	9.5	9.8	9.7	9.9	10.1	0.0	319.5
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 2000		
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
CTG 30MM TP M788					10507	913	11.50	5311	380	13.98	9517	827	11.51
TOTAL					10507			5311			9517		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	913	380	827	891	890	775	777		13940
Gross Cost	85.5	3.0	10.0	10.5	5.3	9.5	9.8	9.7	9.9	10.1	0.0	163.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	85.5	3.0	10.0	10.5	5.3	9.5	9.8	9.7	9.9	10.1	0.0	163.3
Initial Spares												
Total Proc Cost	85.5	3.0	10.0	10.5	5.3	9.5	9.8	9.7	9.9	10.1	0.0	163.3
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. FY01 procurement supports annual peacetime training and builds 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 2000		
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					9348	913	10.23	3889	380	10.23	8463	827	10.23
SubTotal AMMO Hardware					9348			3889			8463		
Production Support Costs													
Production Engineering					524			402			920		
Quality Assurance					10			9			11		
Acceptance Testing					441			955					
Industrial Stock Support					184			56			123		
SubTotal Prod. Support					1159			1422			1054		
TOTAL					10507		11.50	5311		13.98	9517		11.51

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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 99	Alliant Tech (JAAP), Joliet, IL	CM-1/FP	IOC	Aug-99	Mar-00	702	10.23			May 99
FY 99	Alliant Tech (JAAP), Joliet, IL	CM-2/FP	IOC	Mar-00	Mar-01	211	10.23			Dec 99
FY 00	Alliant Tech(JAAP), Joilet, IL	CM-2/FP	IOC	Mar-00	Mar-01	380	10.23	Y		Oct 99
FY 01	Alliant Tech(JAAP), Joilet, IL	CM-3/FP	IOC	Mar-01	Mar-02	827	10.23	Y		Oct 00

REMARKS: *This is a below-threshold 3-year Multiyear contract.
TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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	32.7	33.3	44.2	60.8	51.4	57.6	53.2	50.7	0.0	1001.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	585.5	32.1	32.7	33.3	44.2	60.8	51.4	57.6	53.2	50.7	0.0	1001.5
Initial Spares												
Total Proc Cost	585.5	32.1	32.7	33.3	44.2	60.8	51.4	57.6	53.2	50.7	0.0	1001.5
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 2000		
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
CTG 40MM TP M918 LINKED F/MK19 MG					25207	1444	17.46	29949	1704	17.57	50585	2831	17.87
CTG 40MM PRACTICE M781					5100	1126	4.53	3651	959	3.81	7578	1967	3.85
CTG 40MM NON-LETHAL XM1006					1300	51	25.49	1576	64	11.75	1887	90	20.97
CTG 40MM PRACTICE M385A1					790	65	12.16	465	31	14.88	738	48	15.50
CTG 40MM CSM651					400								
CTG 40MM HEDP M430A1 F/MK19 MG					525			8534	421	20.29			
TOTAL					33322			44175			60788		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	1331	1444	1704	2831	2426	2428	2427	2221		27397
Gross Cost	127.0	30.9	24.4	25.2	29.9	50.6	43.9	44.6	45.3	42.7	0.0	464.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	127.0	30.9	24.4	25.2	29.9	50.6	43.9	44.6	45.3	42.7	0.0	464.5
Initial Spares												
Total Proc Cost	127.0	30.9	24.4	25.2	29.9	50.6	43.9	44.6	45.3	42.7	0.0	464.5
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. FY01 procurement supports annual peacetime training and builds 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 2000		
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					6499	1444	4.50	9896	1704	5.81	49423	2831	17.46
Proj Assy					12413	1487	8.35	18861	1755	10.74			
Ctg Case M169					1667	1501	1.11						
Ctg Case Assy					34	9	3.91	37	10	3.65			
M2 SP .019 f/40MM (LB)													
*M2 SP .019 f/40MM (LB)					348	22	16.07	404	26	15.82	682	42	16.07
M550 Escape Assy					2303	1521	1.51						
Det Stab M55					789	1523	0.52						
Link M16A2					711	1530	0.46						
SubTotal AMMO Hardware					24764			29198			50105		
Production Support Costs													
Production Engineering					286			325			417		
Quality Assurance					7			8			11		
Acceptance Testing					5			10					
Interim Transportation					268			389			7		
Industrial Stock Support					225			423			727		
SubTotal Prod. Support					791			1155			1162		
COST - Nonrecurring													
Government Furnished Material					-348			-404			-682		
SubTotal COST-Nonrecurring					-348			-404			-682		
TOTAL					25207		17.46	29949		17.57	50585		17.87

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	American Ordnance (Milan AAP) Milan, TN	SS/FP	IOC	Sep-99	Dec-00	1444	4.50	Yes		Jul 99
FY 00	American Ordnance (Milan AAP) Milan, TN	SS/FP	IOC	Mar-00	Jul-01	1704	5.81	Yes		Oct 99
FY 01	American Ordnance (Milan AAP) Milan, TN	SS/FP	IOC	Mar-01	Jul-02	2831	17.46	Yes		Oct 00
Proj Assy** FY 99	Teknocraft Inc Palm Bay, FL	C/FP	IOC	Aug-99	Mar-00	892	#8.35			Jun 99
FY 99	JKS Ind Tampa, FL	C/FP	IOC	Dec-98	Mar-00	595	#8.35			Jun 99
FY 00	TBS	C/FP	IOC	Jul-01	Apr-02	1755	10.74	Yes		Oct 99
Ctg Case M169 FY 99	Amron Corp Waukesha, WI	C/FP	IOC	Jun-99	Dec-99	1501	1.11	Yes		Apr 99
Ctg Case Assy FY 99	American Ordnance (Milan AAP) Milan, TN	SS/FP	IOC	Jan-00	Mar-00	9	3.91	Yes		Nov 99
FY 00	American Ordnance (Milan AAP) Milan, TN	SS/FP	IOC	Jan-01	Mar-01	10	3.65	Yes		Oct 99

REMARKS: TBS - To Be Selected
 **Pacing Component
 # FY 99 - Actual contract price for multiple producers.

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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 99	Stock Issue	N/A		N/A	N/A	22	N/A	Yes		
FY 00	Stock Issue	N/A		N/A	N/A	26	N/A	Yes		
FY 01	Stock Issue	N/A		N/A	N/A	42	N/A	Yes		
M550 Escape Assy FY 99	Dayron Corp Orlando, FL	C/FP	IOC	Oct-99	Mar-00	1521	1.51	Yes		Aug 99
Det Stab M55 FY 99	Day & Zimmerman (Lone Star AAP) Texarkana, TX	SS/FP	IOC	Mar-99	Oct-99	1523	0.52	Yes		Jan 99
Link M16A2 FY 99	Valentec Wells Costa Mesa, CA	C/FP	IOC	Jul-99	Jan-00	1530	0.46	Yes		May 99

REMARKS: *Government Furnished Material
TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	1709	1126	959	1967	1151	1298	1395	1350		24890
Gross Cost	31.7	1.2	6.3	5.1	3.7	7.6	4.6	5.2	5.7	5.7	0.0	76.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	31.7	1.2	6.3	5.1	3.7	7.6	4.6	5.2	5.7	5.7	0.0	76.8
Initial Spares												
Total Proc Cost	31.7	1.2	6.3	5.1	3.7	7.6	4.6	5.2	5.7	5.7	0.0	76.8
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. FY01 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 2000		
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					3920	1126	3.48	3390	959	3.53	7174	1967	3.65
SubTotal AMMO Hardware					3920			3390			7174		
Production Support Costs													
Production Engineering					1094			210			292		
Quality Assurance					8			2			8		
Industrial Stock Support					78			49			104		
SubTotal Prod. Support					1180			261			404		
TOTAL					5100		4.53	3651		3.81	7578		3.85

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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 99	Martin Electronics Perry, FL	C/FP	IOC	Mar-99	Nov-99	1126	3.48	Yes		Jan 99
FY 00	TBS	C/FP	IOC	Mar-00	Mar-01	959	3.53	Yes		Oct 99
FY 01	TBS	C/FP	IOC	Mar-01	Mar-02	1967	3.66	Yes		Oct 00

REMARKS: TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 40MM HEDP M430 F/MK19 MG (E11800)

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	43788				421							44209
Gross Cost	299.8	0.0	0.0	0.5	8.5	0.0	0.0	0.0	0.0	0.0	0.0	308.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	299.8	0.0	0.0	0.5	8.5	0.0	0.0	0.0	0.0	0.0	0.0	308.8
Initial Spares												
Total Proc Cost	299.8	0.0	0.0	0.5	8.5	0.0	0.0	0.0	0.0	0.0	0.0	308.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 The M430 cartridge is a high-explosive dual-purpose (HEDP) impact type round. This cartridge is fired from the MK19 MOD 3 grenade machine gun mounted on the high-mobility multi-purpose vehicles. It is capable of penetrating two inches of steel armor plate at zero angle of obliquity and inflicting personnel casualties in the target area. This round replaces the M383 and M384 cartridges, which were strictly anti-personnel in nature. The M430 is a fixed round of ammunition consisting of an internally embossed one-piece projectile body that contains an explosive charge of composition A-5 with a copper cone-shaped charge liner, a rotation band, and a M549 point initiating base detonating fuze with spitback and is crimped to the cartridge case. This item is Code A, approved for service use.

JUSTIFICATION:
 This is a training standard item used in both training and combat. Procurement supports annual peacetime training and builds a war reserve inventory in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE:
 1971

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 HEDP M430 F/MK19 MG (E11800)			Weapon System Type:			Date: February 2000		
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													
Load, Assemble, and Pack								3015	420568	7.17			
Body Assy MPTS								820	437391	1.87			
Liner Fluted Ext								333	435036	0.77			
*Comp A-5 Class 1 (LB)								127	39954	3.17			
*Lead Azide (SP) (LB)								3	127	23.16			
Ctg Case Assy								10	2524	3.98			
*M2 SP .019 F/40MM (LB)								108	6730	16.07			
*Comp CH-6 (LB)								4	337	13.21			
FZ PIBD M549A1								2355	437391	5.38			
Det Stab M55								546	445803	1.22			
*RDX Type II Class 3 (LB)									43	8.71			
Link M16A2								211	445803	0.47			
SubTotal AMMO Hardware								7532					
Production Support Costs													
Production Engineering					525			1040					
Quality Assurance								10					
Acceptance Testing								2					
Interim Transportation								84					
Industrial Stock Support								109					
SubTotal Prod. Support					525			1245					
COST - Nonrecurring													
Government Furnished Material								-243					
SubTotal COST-Nonrecurring								-243					
TOTAL								8534		20.29			

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition				Weapon System Type:			P-1 Line Item Nomenclature: CTG 40MM HEDP M430 F/MK19 MG (E11800)				
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	American Ordnance (MAAP) Milan, TN	SS/FP	IOC	Mar-00	Jul-01	420568	7.17	Yes		Oct 99	
Body Assy MPTS FY 00	TBS	C/FP	IOC	Jun-00	Dec-00	437391	1.87	Yes		Oct 99	
Liner Fluted Ext FY 00	TBS	C/FP	IOC	Jun-00	Dec-00	435036	0.77	Yes		Oct 99	
*Comp A-5 Class 1 (LB) FY 00	Stock Issue	N/A	N/A	N/A	N/A	39954		Yes			
*Lead Azide (SP) (LB) FY 00	Stock Issue	N/A	N/A	N/A	N/A	127		Yes			
Ctg Case Assy FY 00	American Ordnance (MAAP) Milan, TN	SS/FP	IOC	Mar-00	May-00	2524	3.98	Yes		Oct 99	
*M2 SP .019 F/40MM (LB) FY 00	Stock Issue	N/A	N/A	N/A	N/A	6730		Yes			
*Comp CH-6 (LB) FY 00	Stock Issue	N/A	N/A	N/A	N/A	337		Yes			
FZ PIBD M549A1** FY 00	TBS	C/FP	IOC	Jul-00	Apr-01	437391	5.38	Yes		Oct 99	

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

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG 40MM HEDP M430 F/MK19 MG (E11800)					
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
Det Stab M55 FY 00	Day & Zimmerman (LSAAP) Texarkana, TX	C/FP	IOC	Jul-00	Apr-01	445803	1.22	Yes		Oct 99
*RDX Type II Class 3 (LB) FY 00	Stock Issue	N/A	N/A	N/A	N/A	43	N/A	Yes		
Link M16A2 FY 00	TBS	C/FP	IOC	Jun-00	Dec-00	445803	0.47	Yes		Oct 99

REMARKS: *Government Furnished Material
TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	7.9	8.4	5.9	5.8	5.8	5.8	0.0	39.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	7.9	8.4	5.9	5.8	5.8	5.8	0.0	39.7
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	7.9	8.4	5.9	5.8	5.8	5.8	0.0	39.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The Nonlethal Weapons Capability Set (NLCS) 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 nonlethal weapon technology improves.

JUSTIFICATION:

The FY01 procurement will provide the friendly force a nonlethal means to temporarily distract/disorient non-combatants.

Type Classification Date: September 2000 - Standard

Acquisition Manager: Project Manager for Mines, Countermines 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: NONLETHAL WEAPONS CAPABILITY SET (E91800)			Weapon System Type:			Date: February 2000		
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
HARDWARE													
Complete Set							5212	5	1042	6981	5	1396	
SUBTOTAL							5212			6981			
PRODUCTION SUPPORT COSTS													
Production Engineering							1558			1108			
Quality Assurance							406			308			
SUBTOTAL							1964			1416			
Cost - Nonrecurring							50						
Special Testing - AWE							300						
Health Hazard Assessment							250						
Industrial Stock Support							50						
Integrated Logistics Support							100						
Product Improvements													
SUBTOTAL							750						
TOTAL							7926	5	1585	8397	5	1679	

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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										
FY 00	TBS	SS/FFP	ARDEC	Mar-00	Sep-00	5	1042	Yes		
FY 01	TBS	Option	ARDEC	Dec-00	Feb-01	5	1396	Yes		

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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	8.6	26.9	23.3	28.7	25.6	29.0	39.8	35.9	0.0	426.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	186.3	22.4	8.6	26.9	23.3	28.7	25.6	29.0	39.8	35.9	0.0	426.5
Initial Spares												
Total Proc Cost	186.3	22.4	8.6	26.9	23.3	28.7	25.6	29.0	39.8	35.9	0.0	426.5
Flyaway U/C												
Wpn Sys Proc U/C												

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 2000		
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
CTG MORTAR 60MM 1/10 PRAC M766				2479	4	619.75					2732	4	683.00
CTG MORTAR 60MM ILLUM M721/M767				663							5770	9	663.71
CTG MORTAR 60MM SMOKE WP M722				372			2974	9	328.48				
CTG MORTAR 60MM FULL RANGE											2969	5	298.70
CTG MORTAR 60MM HE M720/M720A1				20354	35	436.00	4956	2	2478.00				
CTG 60MM HE M888 W/FUZE M935				1999	30	66.17	15381	232	66.33		241		
CTG 60MM HE M888 W/FUZE XM768				1040							16961	56	
TOTAL							26907			23311			28673

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	27				9	13	13	12	12		163
Gross Cost	37.2	13.1	0.0	0.7	0.0	5.8	7.4	7.6	7.5	7.7	0.0	87.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	37.2	13.1	0.0	0.7	0.0	5.8	7.4	7.6	7.5	7.7	0.0	87.0
Initial Spares												
Total Proc Cost	37.2	13.1	0.0	0.7	0.0	5.8	7.4	7.6	7.5	7.7	0.0	87.0
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, M767. 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 SEP 99

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 ILLUM M721/M767 (E70400)			Weapon System Type: M224 60mm Mortar			Date: February 2000		
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, LAP											840	4385	192
2. CTG, M767, LAP											1078	4385	246
3. Prop Chg M235											227	35957	6
4. Ign Ctg M702											219	9121	24
5. Fuze, M776 MTSQ											1236	9121	135
6. Fin Assy M27											62	9121	7
SubTotal AMMO Hardware											3662		
Production Support Costs													
Production Engineering											999		
Quality Assurance											400		
Acceptance Testing											225		
Interim Transportation											108		
SubTotal Prod. Support											1732		
COST - Nonrecurring													
First Article Tests													
Corrective Action Plan - XM767								663					376
SubTotal COST-Nonrecurring								663					376
TOTAL								663			5770	M721 XM767	630.72 685.07

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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, LAP FY 01	Pine Bluff Arsenal Pine Bluff, AR	SS/CR	TACOM	Mar-01	Dec-02	4	192	YES	N/A		
2. CTG, XM767, LAP FY 01	Pine Bluff Arsenal Pine Bluff, AR	SS/CR	TACOM	Mar-01	Dec-02	4	246	YES	N/A		
3. Prop Chg M235 FY 01	Valentec Systems Inc. Mt. Arlington, NJ	OPT	TACOM	Jan-01	Feb-02	36	6	YES	N/A		
4. Ign Ctg M702 FY 01	UNKNOWN	OPT	TACOM	Jan-01	Feb-02	9	24	YES	N/A		
5. Fuze, M776 MTSQ FY 01	Diehl GMBH Schramberg, GER	OPT	TACOM	Mar-01	Feb-02	9	135	YES	N/A		
6. Fin Assy M27 FY 01	Gayston Corp, Springboro OH	OPT	TACOM	Jan-01	Feb-02	9	7	YES	N/A		

REMARKS: Pine Bluff Arsenal is a government owned / government operated (GOGO) facility. Work is performed through work orders, not contracts. The illuminant candle is assembled for Pine Bluff Arsenal at Crane Army Ammunition Activity, Crane IN, another GOGO facility.

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG MORTAR 60MM ILLUM M721/M767 (E70400)

Date:

February 2000

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	
1. CTG, M721, LAP																															
	1	FY 99P	A	8	0	8																									
	1	FY 01	A	4	0	4																				4					
	1	FY 99P	NV	12	0	12																									
	1	FY 01	NV	5	0	5																			5						
2. CTG, XM767, LAP																															
	1	FY99P	A	33	0	33																			11	11	11				
	1	FY01	A	4	0	4																				4					
5. Fuze, M776 MTSQ																															
	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.
						REORDER	3	6	21	27	
2	Diehl GMBH Schramberg, GER	15	30	90		INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG MORTAR 60MM ILLUM M721/M767 (E70400)

Date:

February 2000

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	
1. CTG, M721, LAP																															
	1	FY99P	A	8	8																										
	1	FY 01	A	4	0	4																				4					
2. CTG, XM767, LAP																															
	1	FY99P	A	20	0	20	11	9																							
	1	FY01 99P	A	4	0	4																				4					
5. Fuze, M776 MTSQ																															
	2	FY 01	ALL	14	0	14																									
							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 M721 & XM767 are produced on the same assembly facility.																	
	NAME / LOCATION				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																		
	2	Diehl GMBH Schramberg, GER			15	30	90	REORDER	3	6	21	27																			
								INITIAL																							
								REORDER																							
								INITIAL																							
								REORDER																							
								INITIAL																							
							REORDER																								
							INITIAL																								
							REORDER																								

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG MORTAR 60MM ILLUM M721/M767 (E70400)												Date: February 2000				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 03												Fiscal Year 04														
							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	V	E	A	E	A	P	A	U	U	U	E									
T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	Y	N	L	G	P	T										
1. CTG, M721, LAP																																	
	1	FY 99P	A	8	8																												
	1	FY 01	A	4	0	4		4																									
	1	FY 99P	NV	12	12																												
	1	FY 01	NV	5	0	5		5																									
2. CTG, XM767, LAP																																	
	1	FY99P	A	20	20																												
	1	FY01	A	4	0	4		4																									
5. Fuze, M776 MTSQ																																	
	2	FY 01	All	14	14																												
							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	V	E	A	E	A	P	A	U	U	U	E	P	
							T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	Y	N	L	G	P	T			

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.			
				D +							
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					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 60MM HE M888 W/FUZE M935 (E67304)

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	30	232							314
Gross Cost	0.0	2.0	3.8	2.0	15.4	0.2	0.0	0.0	0.0	0.0	0.0	23.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	2.0	3.8	2.0	15.4	0.2	0.0	0.0	0.0	0.0	0.0	23.4
Initial Spares												
Total Proc Cost	0.0	2.0	3.8	2.0	15.4	0.2	0.0	0.0	0.0	0.0	0.0	23.4
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:

Procurement supports annual peacetime training requirements and builds toward a depot level.

TYPE CLASSIFICATION DATE: 1986

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 60MM HE M888 W/FUZE M935 (E67304)			Weapon System Type:			Date: February 2000		
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					813	30	26.90	6331	232	27.30				
*M720 Proj Mpts					321	31	10.22	2465	241	10.22				
*Comp B Type I Grade A (LB)					37	24	1.55	288	185	1.55				
*TNT Type I Flake (LB)					17	12	1.41	131	93	1.41				
M27 Fin Assembly					175	31	5.56	1362	241	5.65				
M702 Ignition Cartridge					363	31	11.54	2824	241	11.71				
*M9 Flake .006 f/60MM (LB)					14		57.00	106	2	57.00				
*Nitrocellulose WW Gr A (LB)					5	1	5.00	38	8	5.00				
*M10 Flake .008 (LB)					46	2	19.00	352	19	19.00				
LAP Chg Prop M204					140	122	1.15	797	937	0.85				
Container Assy M204					272	122	2.23	2117	937	2.26				
*M935 Fuze					173	31	5.57	1330	239	5.57				
Fz Mpts M935								1211	121	10.00				
*Fz Mpts M935					755	31	24.04	2885	120	24.04				
*Comp A-5 Class 1 (LB)					7	1	7.85	55	7	7.85				
*RDX Type II Class 3 (LB)							8.57	3		8.57				
SubTotal AMMO Hardware					3138			22295						
Production Support Costs														
Production Engineering					96			40			241			
Quality Assurance					6			5						
Acceptance Testing					37			75						
Interim Transportation					35			295						
Industrial Stock Support					63			323						
SubTotal Prod. Support					237			738			241			

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 (E67304)			Weapon System Type:			Date: February 2000		
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	\$
COST - Nonrecurring													
Government Furnished Material					-1376			-7652					
SubTotal COST-Nonrecurring					-1376			-7652					
TOTAL					1999		66.17	15381		66.33		241	

Exhibit P-5a, Budget Procurement History and Planning

Date:

February 2000

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 99	American Ordnance (MAAP) Milan, TN	SS/FP	IOC	Sep-99	Nov-00	30	26.90			Jul 99
FY 00	American Ordnance (MAAP) Milan, TN	SS/FP	IOC	Mar-00	Mar-01	232	27.30	Y		Oct 99
*M720 Proj Mpts FY 99	Stock Issue	N/A	N/A	N/A	N/A	31	N/A			
FY 00	Stock Issue	N/A	N/A	N/A	N/A	241	N/A			
*Comp B Type I Grade A (LB) FY 99	Stock Issue	N/A	N/A	N/A	N/A	24	N/A			
FY 00	Stock Issue	N/A	N/A	N/A	N/A	185	N/A			
*TNT Type I Flake (LB) FY 99	Stock Issue	N/A	N/A	N/A	N/A	12	N/A			
FY 00	Stock Issue	N/A	N/A	N/A	N/A	93	N/A			
M27 Fin Assembly FY 99	Wilkinson Mfg Fort Calhoun, NE	C/FP	IOC	Aug-99	Jan-00	31	5.56			Jun 99
FY 00	Wilkinson Mfg Fort Calhoun, NE	C/FP	IOC	Feb-00	Oct-00	241	5.65	Y		Oct 99

REMARKS: *Government Furnished Material

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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
M702 Ignition Cartridge FY 99	American Ordnance (Milan Milan, TN)	SS/FP	IOC	Sep-99	Jul-00	31	11.54			Jul 99
FY 00	American Ordnance (Milan Milan, TN)	SS/FP	IOC	Mar-00	Oct-00	241	11.71	Y		Oct 99
*M9 Flake .006 f/60MM (LB) FY 99	Stock Issue	N/A	N/A	N/A	N/A		N/A			
FY 00	Stock Issue	N/A	N/A	N/A	N/A	2	N/A			
*Nitrocellulose WW Gr A (LB) FY 99	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	8	N/A			
*M10 Flake .008 (LB) FY 99	Stock Issue	NA	N/A	N/A	N/A	2	N/A			
FY 00	Stock Issue	N/A	N/A	N/A	N/A	19	N/A			
LAP Chg Prop M204 FY 99	American Ordnance (MAAP) Milan, TN	SS/FP	IOC	Sep-99	Sep-00	122	1.15			Jul 99
FY 00	American Ordnance (MAAP) Milan, TN	SS/FP	IOC	Mar-00	Oct-00	937	0.85	Y		Oct 99

REMARKS: *Government Furnished Material

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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
Container Assy M204										
FY 99	Armtec Defense Prod Coachella, CA	SS/FP	IOC	Aug-99	Sep-99	122	2.23			Jun 99
FY 00	Armtec Defense Prod Coachella, CA	SS/FP	IOC	Mar-00	May-00	937	2.26	Y		Oct 99
*M935 Fuze										
FY 99	Stock Issue	N/A	N/A	N/A	N/A	31	N/A			
FY 00	Stock Issue	N/A	N/A	N/A	N/A	239	N/A			
*Fz MPTS M935**										
FY 99	Stock Issue	N/A	N/A	N/A	N/A	31	N/A			
FY 00	American Ordnance (Milan AAP) Milan, TN	SS/FP	N/A	May-00	Feb-01	121	10.00	Y		Oct 99
FY 00	Stock Issue	N/A	N/A	N/A	N/A	120	N/A			
*Comp A-5 Class 1 (LB)										
FY 99	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	7	N/A			
*RDX Type II Class 3 (LB)										
FY 99	Stock Issue	N/A	N/A	N/A	N/A		N/A			
FY 00	Stock Issue	N/A	N/A	N/A	N/A		N/A			

REMARKS: *Government Furnished Material
**Pacing Component

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 60MM HE M888 W/FUZE M935 (E67304)

Date:

February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 1												LATER
							Calendar Year 00												Calendar Year 1												
							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	99P	A	26	26																										
	1	99	A	30		30										30															
	1	00	A	232		232												40	40	40	40	40	32								
	1	99	MC	125		125											40	40	45												
	1	00	MC	161		161																		30	131						
	1	01	MC	6		6																			6						
	1	99P	NS	25		25		25																							
	1	99P	NS	14		14		4								10															
	1	99	NS	4		4										4															
	1	00	NS	16		16																			16						
		99P	ALL	25		25		25																							
		99P	ALL	40	26	14		4								10															
		99	ALL	159		159										34	40	40	45												
		00	ALL	409		409												40	40	40	40	40	32	30	147						
		01	ALL	6		6																			6						

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.			Pacer	UALT	ALT	PDN	TOTAL										
1	Milan AAP, TN	17	73	400		INITIAL	6	6	12	18															
2	To Be Selected	20	20	40		REORDER	6	6	12	18	Initial	6	6	12	18										
3	Bulova Tech, PA	20	20	40		INITIAL					Reorder	6	6	12	18										
						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 02												Fiscal Year 03												LATER
							Calendar Year 02												Calendar Year 03												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Load, Assemble, and Pack	1	99P	A	26	26																										
	1	99	A	30	30																										
	1	00	A	232	232																										
	1	99	MC	125	125																										
	1	00	MC	161	30	131	30	30	30	30	11																				
	1	01	MC	6		6																									
	1	99P	NS	25	25																										
	1	99P	NS	14	14																										
	1	99	NS	4	4																										
	1	00	NS	16		16																									
		99P	ALL	25	25																										
		99P	ALL	40	40																										
		99	ALL	159	159																										
		00	ALL	409	262	147	30	30	30	30	27																				
		01	ALL	6		6																									

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.			Pacer	UALT	ALT	PDN	TOTAL
1	Milan AAP, TN	17	73	400		INITIAL	6	6	12	18	Initial	6	6	12	18
2	To Be Selected	20	20	40		REORDER	6	6	12	18	Reorder	6	6	12	18
3	Bulova Tech, PA	20	20	40		INITIAL									
						REORDER									
						INITIAL									
						REORDER									
						INITIAL									
						REORDER									

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG 60MM HE M888 W/FUZE M935 (E67304)

Date:

February 2000

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												
							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	
Pacing Component: Fz Mpts M935																															
	3	99P	TOT	40	40																										
	2	99	TOT	4	4																										
	2	00	TOT	83	83																										
	2	01	TOT	6		6						6																			

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.			Pacer	UALT	ALT	PDN	TOTAL										
							INITIAL																		
1	Milan AAP, TN	17	73	400			6	6	12	18															
2	To Be Selected	20	20	40			6	6	12	18	Initial	6		6	12	18									
3	Bulova Tech, PA	20	20	40							Reorder	6		6	12	18									

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG MORTAR 60MM HE W/PD FUZE XM768 (E92900)

Program Elements for Code B Items: 64802/D613
 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						56	44	50	45	45		240
Gross Cost	0.0	0.0	0.0	1.0	0.0	17.0	11.8	13.5	12.4	12.7	0.0	67.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	17.0	11.8	13.5	12.4	12.7	0.0	67.4
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	17.0	11.8	13.5	12.4	12.7	0.0	67.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The 60MM Mortar High Explosive/point detonating (HE/PD) cartridges are designed for use with the M224 lightweight company mortar system (LWCMS) in all light infantry battalions including Airborne, Air Assault and Ranger. It will consist of the new XM783 dual safety , point detonating/delay fuze, high fragmentation steel shell body and insensitive explosive fill. The tail assembly and propulsion system will be common to all other 60mm rounds. This round will be used primarily in training because it is significantly less expensive than the M720A1, the preferred warfighting round. However, the XM768 will be lethal and can be used in combat. This item has not yet been approved for service use.

JUSTIFICATION:

FY01 procurement supports annual training requirements and establishes an initial training stockpile.

TYPE CLASSIFICATION DATE: Dec 2000

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 W/PD FUZE XM768 (E92900)			Weapon System Type: M224 60mm Lightweight Company Mortar			Date: February 2000		
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 & Pack , XM768											4136	56	74
Shell Body, HF1											1769	58	31
Ignition Gartridge, M702											1389	58	24
Prop Charge M235											1443	229	6
Fin M27											388	58	7
Fuze, XM783											3767	58	65
TOTAL											12892		
Production Support Costs													
Production Engineering					1040						1000		
Quality Assurance											200		
Acceptance Testing											180		
Interim Transportation											70		
SubTotal Prod. Support					1040						1450		
COST - Nonrecurring													
First Article / IPT											1463		
Calibration Lot											1156		
SubTotal COST-Nonrecurring											2619		
TOTAL					1040						16961		304

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 HE W/PD FUZE XM768 (E92900)				
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 , XM768 FY 01	Unknown	OPT	TACOM	Mar-01	Mar-03	56	74	no	Dec 00		
Shell Body, HF1 FY 01	Unknown	OPT	TACOM	Jan-01	Feb-02	58	31	no	Dec 00		
Ignition Gartridge, M702 FY 01	Unknown	OPT	TACOM	Jan-01	Feb-02	58	24	yes			
Prop Charge M235 FY 01	Valentec, Mt. Arlington NJ	OPT	TACOM	Jan-01	Feb-02	229	6	yes			
Fin M27 FY 01	Gayson Corp, Springboro OH	OPT	TACOM	Jan-01	Feb-02	58	7	yes			
Fuze, XM783 FY 01	KDI, Cincinnati, OH	OPT	TACOM	Jan-01	Jul-02	58	65	no	Dec 00		

REMARKS: LAP for the M720A1, XM768 and XM769 will be bundled on one contract
Shell bodies for the M720A1, XM768 and XM769 will be bundled on one contract

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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			35					23	14		1165
Gross Cost	112.1	2.1	0.0	20.5	5.0	0.0	0.0	0.0	11.9	7.2	0.0	158.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	112.1	2.1	0.0	20.4	5.0	0.0	0.0	0.0	11.9	7.2	0.0	158.7
Initial Spares												
Total Proc Cost	112.1	2.1	0.0	20.4	5.0	0.0	0.0	0.0	11.9	7.2	0.0	158.7
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 should 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:

FY01 funds are required to prove-out a material change for a insensitive explosive main charge.

Type Classification date: M720 STD Jan 86; M720A1 STD Dec 00

ACQUISITION MANAGER: PM Mortars

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION /Ammunition / 41330050			P-1 Line Item Nomenclature: CTG Mortar 60MM HE M720/M720A1 W/M734 Fuze			Weapon System Type:			Date: February 2000		
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													
1. Cartridge, M720A1					2528	35	72						
2. Shell Body HFI					617	37	17						
3. Prop Charge M235					857	145	6						
4. Ignition Ctg, M235					849	37	23						
5. Fuze, M734A1					8968	37	242						
6. Fin M27					311	37	8						
SubTotal AMMO Hardware					14130								
Production Support Costs													
Production Engineering					1346								
Quality Assurance					500								
Acceptance Testing					384								
Interim Transportation					190								
Materiel Change								4956					
SubTotal Prod. Support					2420			4956					
COST - Nonrecurring													
First Article Testing					1801								
Value Engineering					2003								
Product Improvement													
Government Furnished Material													
SubTotal COST-Nonrecurring					3804								
TOTAL					20354			4956					

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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 FUZE (E67303)					
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. CTG, M720E1, LAP FY99	UNKNOWN	C/FP	TACOM	Dec-00	Dec-01	35	72	No	Jun00	Aug 99
2. SHELL BODY FY99	UNKNOWN	C/FP	TACOM	Jun-00	Sep-00	37	17	No	Jun 00	Aug 99
3. PROP CHG M235 FY99	VALENTEC SYS INC	OPT	TACOM	Jul-99	Jun-00	145	6	Yes		Oct 98
4. IGN CTG M702 FY99	UNKNOWN	C/FP	TACOM	Jun-00	Aug-00	37	23	Yes		Oct 98
5. FUZE, M734A1 MO FY99	KDI, CINNINNATI, OHIO	OPT	TACOM	Mar-99	Apr-00	37	242	Yes		Feb 98
6. Fin M27 FY99	GAYSIN CORP SPRINGBORO, OHIO	C/FP	TACOM	Sep-99	May-00	37	8	Yes		Oct 98

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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	0.5	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.5	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
Initial Spares												
Total Proc Cost	0.0	0.5	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
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) APR 01

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: January 2000		
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	8320	31						
4. Prop Chg M219					158	32800	5						
5. Ign Ctg M752					149	8320	18						
6. Fuze M772					1221	8320	147						
7. Container PA114					82	8320	10						
8. Container PA157					97	2774	35						
SubTotal AMMO Hardware					4399								
Production Support Costs													
Production Engineering					1439								
Quality Assurance					387								
Acceptance Testing					373								
Interim Transportation					132								
SubTotal Prod. Support					2331								
COST - Nonrecurring													
First Article Testing/IPT					2558								
SubTotal COST-Nonrecurring					2558								
TOTAL					9288		\$ 1,161.00						

Exhibit P-5a, Budget Procurement History and Planning

Date:
January 2000

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	Mar-99	Jul-01	8	279				
2. Shell Bodies FY 99	UNKNOWN	C/FP	TACOM	Sep-99	Aug-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	UNKNOWN	C/FP	TACOM	Nov-99	Dec-00	33	5				
5. Ign Ctg M752 FY 99	UNKNOWN	C/FP	TACOM	Sep-99	Aug-00	8	18				
6. Fuze M772 FY 99	Diehl GMBH Schramberg Germany	SS/FP	TACOM	Aug-99	Oct-00	8	147				
7. Container PA114 FY 99	United Ammo Container, Milan, TN	C/FP	TACOM	Aug-99	Jul-00	8	10				
8. Container PA157 FY 99	Brockway STD, Atlanta, GA	C/FP	TACOM	Aug-99	Jul-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.

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG 81MM INFRARED (IR) ILLUM XM816 (E90000)													Date: January 2000																			
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 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									
1. CTG, XM816, LAP	1	FY 99	A	8	0	8																																	8
6. Fuze M772	2	FY 99	A	8	0	8																																	8

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	Pine Bluff Arsenal, Pine Bluff AR	3	20	35		INITIAL	6	6	24	30	
2	Diehl GMBH Schramberg Germany	4	30	90		REORDER	3	6	21	27	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG 81MM INFRARED (IR) ILLUM XM816 (E90000)												Date: January 2000												
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	
1. CTG, XM816, LAP	1	FY 99	A	8	0	8																									
6. Fuze M772	2	FY 99	A	8	0	8	8																								
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MFR	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	3	20	35		INITIAL	6	6	24	30																					
2	Diehl GMBH Schramberg Germany	4	30	90		REORDER	3	6	21	27																					
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	73						31		345
Gross Cost	17.8	50.9	31.2	29.5	0.0	0.0	0.0	0.0	0.0	16.6	0.0	146.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	17.8	50.9	31.2	29.5	0.0	0.0	0.0	0.0	0.0	16.6	0.0	146.0
Initial Spares												
Total Proc Cost	17.8	50.9	31.2	29.5	0.0	0.0	0.0	0.0	0.0	16.6	0.0	146.0
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M931 120mm Full Range Practice 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 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.

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 2000		
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 M931					8084	73	112						
2. Shell Body					8734	75	116						
3. Fin Assembly M34					2606	75	35						
4. Prop Chg M233					4269	297	14						
5. Ignition Ctg M1020					1975	75	26						
6. Fuze Trng M781					1281	75	17						
SubTotal AMMO Hardware					26949								
Production Support Costs													
Production Engineering					1289								
Quality Assurance					160								
Acceptance Testing					415								
Interim Transportation					675								
SubTotal Prod. Support					2539								
TOTAL					29488		406.73						

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	SNC Technologies, LeGardeur PQ, Canada	OPT	TACOM	Mar-99	Dec-00	73	112	Yes		
2. Shell Body										
FY 99	Chamberlain Mfg. Scranton, PA	OPT	TACOM	Feb-99	Feb-00	75	116	Yes		
3. Fin Assembly M34										
FY 99	Valentec Systems Inc., Mt. Arlington, NJ	OPT	TACOM	Aug-99	Jul-00	75	35	Yes		
4. Prop Chg M233										
FY 99	Valentec Systems Inc., Mt. Arlington, NJ	OPT	TACOM	Aug-99	Apr-00	297	14	Yes		
5. Ignition Ctg M1020										
FY 99	Pocal Industries Moscow, PA	OPT	TACOM	Mar-99	Feb-00	75	26	Yes		
6. Fuze Trng M781										
FY 99	Pocal Industries Moscow, PA	OPT	TACOM	Feb-99	Sep-99	75	17	Yes		

REMARKS:

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG MORTAR 120MM FULL RANGE PRACTICE M93 (E25507)												Date: February 2000												
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												L A T E R
							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	
1. LAP M931																															
	1	FY 98P	A	204	204																										
	2	FY 99	A	73	0	73			10	10	10	10	10	10	10	3															
2. Shell Body																															
	3	98P	A	132	132																										
	3	FY 99	A	155	155																										

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	65	62	51	47	33	19		492
Gross Cost	78.0	0.0	37.4	36.8	48.9	45.0	37.9	35.8	26.7	16.5	0.0	329.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	78.0	0.0	37.4	36.8	48.9	45.0	37.9	35.8	26.7	16.5	0.0	363.1
Initial Spares												
Total Proc Cost	78.0	0.0	37.4	36.8	48.9	45.0	37.9	35.8	26.7	16.5	0.0	363.1
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 120mm 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:

FY2001 procurement of the M934A1 supports building a war reserve inventory, which will replace the M934 as the preferred 120mm mortar 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 2000		
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					7065	48	148	9085	65	140	7468	62	121
2. Shell Body					6560	50	132	9438	67	140	9106	64	142
3. Fin Assembly M31					1718	50	35	2142	67	32	2242	64	35
4. Ignition Ctg M1020					1302	50	26	1833	67	27	1795	64	28
5. Prop Chg M234					2815	196	14	3885	266	15	3878	252	15
6. Fuze M734A1					12526	50	252	16503	67	245	14362	64	225
7. PA153 Container					490	50	10	676	67	10	652	64	10
8. PA154 Container					1014	25	41	1400	34	42	1350	32	42
SubTotal AMMO Hardware					33490			44963			40852		
Production Support Costs													
Production Engineering					1484			1516			1958		
Quality Assurance					307			312			237		
Acceptance Testing					891			1226			1183		
Interim Transportation					603			830			801		
SubTotal Prod. Support					3285			3884			4179		
TOTAL					36775		\$769.19	48847		\$752.70	45031		\$732.22

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	SNC Tech, LeGardeur, PQ, Canada	OPT	TACOM	Mar-99	Mar-01	48	148	Yes		
FY 00	SNC Tech, LeGardeur, PQ, Canada	OPT	TACOM	Jan-00	Oct-01	65	140	Yes		
FY 01	SNC Techn, LeGardeur, PQ, Canada	OPT	TACOM	Jan-01	Oct-02	62	121	Yes		
2. Shell Body										
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	67	140	Yes		
FY 01	UNKNOWN	C/FP	TACOM	Mar-01	Jun-02	64	142	Yes		
3. Fin Assembly M31										
FY 99	Valentec Systems Inc. Mt. Arl., NJ	OPT	TACOM	Aug-99	Jul-00	50	35	Yes		
FY 00	Valentec Systems Inc. Mt. Arl., NJ	OPT	TACOM	Jan-00	Dec-00	67	32	Yes		
FY 01	UNKNOWN	C/FP	TACOM	Mar-01	May-01	64	35	Yes		
4. Ignition Ctg M1020										
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	67	27	Yes		
FY 01	Pocal Industries Moscow, PA	OPT	TACOM	Jan-01	Dec-01	64	28	Yes		
REMARKS: 120mm components (M31 Fin, M1020 Ignition Cartridge, M734A1 Fuze, M234 Prop Charge, PA153 Container and PA154 Container) are procured on same contracts as other 120mm mortar rounds.										

Exhibit P-5a, Budget Procurement History and Planning

Date:

February 2000

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 99	Valentec Systems Inc. Mt. Arlington, NJ	OPT	TACOM	Aug-99	Sep-00	196	14	Yes		
FY 00	UNKNOWN	C/FP	TACOM	Mar-00	Jun-01	266	15	Yes		
FY 01	UNKNOWN	OPT	TACOM	Jan-01	Feb-02	252	15	Yes		
6. Fuze M734A1										
FY 99	KDI, Cincinnati OH	OPT	TACOM	Mar-99	May-00	50	252	Yes		
FY 00	KDI, Cincinnati OH	OPT	TACOM	Jan-00	Dec-00	67	245	Yes		
FY 01	KDI, Cincinnati OH	OPT	TACOM	Jan-01	Dec-01	64	225	Yes		
7. PA153 Container										
FY 99	United Ammo Container, Milan, TN	C/FP	TACOM	Jul-99	Feb-00	50	10	Yes		
FY 00	United Ammo Container, Milan, TN	OPT	TACOM	Jan-00	Oct-00	67	10	Yes		
FY 01	United Ammo Container, Milan, TN	OPT	TACOM	Jan-01	Oct-01	64	10	Yes		
8. PA154 Container										
FY 99	Brockway STD, Atlanta, GA	C/FP	TACOM	Aug-99	Jan-00	25	41	Yes		
FY 00	Brockway STD, Atlanta, GA	OPT	TACOM	Jan-00	Oct-00	34	42	Yes		
FY 01	Brockway STD, Atlanta, GA	OPT	TACOM	Jan-01	Oct-01	32	42	Yes		

REMARKS: 120mm components (M31 Fin, M1020 Ignition Cartridge, M734A1 Fuze, M234 Prop Charge, PA153 Container and PA154 Container) are procured on same contracts as other 120mm mortar rounds.
The M934A1 LAP effort has been combined with the M931 LAP on one contract.

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: CTG MORTAR 120MM HE M934A1 W/MO FUZE (E25501)												Date: February 2000													
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												
							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 98P	A	43	0	43	6	8	8	8	8	5																			
	1	FY 99	A	48	0	48						3	8	8	8	8	8	5													
	1	FY 00	A	65	0	65								6	8	8	8	8	8	8	8	8	8	8	8	8	3				
	1	FY 01	A	62	0	62					A																62				
6. Fuze M734A1																															
	2	FY 98	A	45	45																										
	2	FY 99	A	50	45	5	5																								
	2	FY 00	A	67	0	67				11	11	11	11	11	12																
	2	FY 01	A	64	0	64					A								10	10	11	11	11	11							
							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.	Prior 1 Oct.				After 1 Oct.	After 1 Oct.	After 1 Oct.																		
1	SNC Technologies, LeGardeur, PQ, Canada	3	8	24		INITIAL		6	6	24	30	The M734A1 Fuze is used on 3 different U.S. Mortar rounds. Production is near continuous.																			
						REORDER		3	4	21	25																				
2	KDI, Cincinnati OH	3	15	40		INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: CTG MORTAR 120MM HE M934A1 W/MO FUZE (E25501)												Date: February 2000													
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												LATE 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	SEP	
1. LAP M934A1																															
	1	FY 98	A	43	43																										
	1	FY 99	A	48	48																										
	1	FY 00	A	65	65																										
	1	FY 01	A	62	0	62	6	8	8	8	8	8	8	8																	
6. Fuze M734A1																															
	2	FY 98	A	45	45																										
	2	FY 99	A	50	50																										
	2	FY 00	A	67	67																										
	2	FY 01	A	64	64																										
						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			REACH 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	SNC Technologies, LeGardeur, PQ, Canada			3	8	24		INITIAL		6	6	24	30	The M734A1 Fuze is used on 3 different U.S. Mortar rounds. Production is near continuous.																	
2	KDI, Cincinnati OH			3	15	40		REORDER		3	4	21	25																		
								INITIAL																							
								REORDER																							
								INITIAL																							
								REORDER																							
								INITIAL																							
								REORDER																							
								INITIAL																							
								REORDER																							

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG MORTAR 120MM ILLUM XM930 W/MTSQ FZ (E25503)

Program Elements for Code B Items: 64802/D613		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	9	13	8	2	4							36
Gross Cost	6.2	26.0	2.9	5.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	45.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	26.0	2.9	5.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	39.7
Initial Spares												
Total Proc Cost	0.0	26.0	2.9	5.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	39.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 The XM930 Illumination Cartridge/ XM983 Infrared Illumination Cartridge with Mechanical Time - Super Quick Fuze 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 illuminate targets during night operations. It consists of a two piece body filled with illuminating flare, fuze and tail assembly. It bursts over a target producing 1 million candlepower illumination, which is more intense and effective than the 4.2" round that it replaces. This budget line also funds the XM983 Infrared Illumination round, which greatly enhances the effectiveness of night vision devices. The rounds are range matched to the 120mm high explosive (HE) and smoke cartridges. These items are code B, not approved for service use.

JUSTIFICATION:
 This procurement is part of the total package fielding effort for the 120mm mortar system. This procurement provides a calibration lot and builds war reserve inventory in accordance with the Army's procurement goals.

Type Classification TCLP 3Q98, STD Jun 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 MORTAR 120MM ILLUM XM930 W/MTSQ.FZ (E25503)			Weapon System Type:			Date: February 2000		
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. Load, Assemble, and Pack					843	2482	340	1214	3500	347			
2. Shell Body					758	2581	294	1088	3640	299			
3. White Light Cannister					334	1291	259	481	1820	264			
4. Infrared Cannister					411	1291	319	592	1820	326			
5. Fuze, M776 MTSQ					338	2581	131	485	3640	133			
6. Ignition Ctg M1020					68	2581	26	99	3640	27			
7. Propellant Charge M234					146	10176	14	210	14350	15			
8. Fin Assembly M31					89	2581	35	116	3640	32			
9. Fiber Container PA153					25	2581	10	36	3640	10			
10. Metal Container PA154					53	1291	41	75	1820	41			
SubTotal AMMO Hardware					3065			4396					
Production Support Costs													
Production Engineering					1137			751					
Quality Assurance					237			162					
Acceptance Testing					413			455					
Interim Transportation					106			121					
SubTotal Prod. Support					1893			1489					
TOTAL					4958		1997	5885		1681			

Exhibit P-5a, Budget Procurement History and Planning

Date:

February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition	Weapon System Type:			P-1 Line Item Nomenclature: CTG MORTAR 120MM ILLUM XM930 W/MTSQ FZ (E25503)						
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. Load, Assemble, and Pack										
FY 99	Pine Bluff Ars. Pine Bluff AR	SS/CR	TACOM	Jun-00	Jun-02	2	340	no	un 00	
FY 00	Pine Bluff Ars. Pine Bluff AR	SS/CR	TACOM	Jun-00	Jun-02	4	347	no	un 00	
2. Shell Body										
FY 99	Chamberlain Mfg Scranton PA	OPT	TACOM	Mar-99	Mar-00	3	294	yes		
FY 00	Chamberlain Mfg Scranton PA	OPT	TACOM	Mar-00	Mar-01	4	299	yes		
3. White Light Cannister										
FY 99	Crane AAP Crane IN	SS/CR	TACOM	Jun-00	Jun-01	1	259	no	un 00	
FY 00	Crane AAP Crane IN	SS/CR	TACOM	Jun-00	Jul-01	2	264	no	un 00	
4. Infrared Cannister										
FY 99	Crane AAP Crane IN	SS/CR	TACOM	Jun-00	Aug-01	1	319	no	un 00	
FY 00	Crane AAP Crane IN	SS/CR	TACOM	Jun-00	Sep-01	2	326	no	un 00	
5. Fuze, M776 MTSQ										
FY 99	Diehl GMBH Schramberg, GER	SS/FP	TACOM	Sep-99	Aug-00	3	131	yes		
FY 00	Diehl GMBH Schramberg, GER	OPT	TACOM	Mar-00	Feb-01	4	133	yes		
6. Ignition Ctg M1020										
FY 99	Pocal Industries Moscow PA	OPT	TACOM	Mar-99	Feb-00	3	26	yes		
FY 00	Pocal Industries Moscow PA	OPT	TACOM	Jan-00	Feb-01	4	27	yes		
7. Propellant Charge M234										
FY 99	Valentec Systems Inc Mt Arlington NJ	OPT	TACOM	Aug-99	Sep-00	10	14	yes		
FY 00	UNKNOWN	C/FP	TACOM	Mar-00	Jun-01	14	15	yes		

REMARKS: Pine Bluff Arsenal and Crane Army Ammunition Activity are Government Owned-Government Operated (GOGO) facilities. Work is performed through work orders, not contracts. 120mm common components (M1020 ignition Cartridge, M234 Prop Charge, M31 fin and PA153 & PA154 containers are procured on the same contract as other 120mm mortar rounds.

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: CTG MORTAR 120MM ILLUM XM930 W/MTSQ FZ (E25503)					
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
8. Fin Assembly M31										
FY 99	Valentec Systems Inc Mt Arlington NJ	OPT	TACOM	Aug-99	Jul-00	3	35	yes		
FY 00	Valentec Systems Inc Mt Arlington NJ	OPT	TACOM	Jan-00	Nov-01	4	32	yes		
9. Fiber Container PA153										
FY 99	United Ammo Container, Milan TN	C/FP	TACOM	Jul-99	Feb-00	3	10	yes		
FY 00	United Ammo Container, Milan TN	OPT	TACOM	Jan-00	Oct-00	4	10	yes		
10. Metal Container PA154										
FY 99	Brockway Standard, Atlanta GA	C/FP	TACOM	Jul-99	Jan-00	1	41	yes		
FY 00	Brockway Standard, Atlanta GA	OPT	TACOM	Jan-00	Oct-00	2	41	yes		

REMARKS: Pine Bluff Arsenal and Crane Army Ammunition Activity are Government Owned-Government Operated (GOGO) facilities. Work is performed through work orders, not contracts.
120mm common components (M1020 ignition Cartridge, M234 Prop Charge, M31 fin and PA153 & PA154 containers are procured on the same contract as other 120mm mortar rounds.

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature:	Date:																								
						CTG MORTAR 120MM ILLUM XM930 W/MTSQ FZ (E25503)	February 2000																								
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												
							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	
1. Load, Assemble, and Pack																															
	1	FY98&P	A	15	0	15																									
	1	FY 99	A	2	0	2																									
	1	FY 00	A	4	0	4																									
5. Fuze, M776 MTSQ																															
	2	FY98&P	A	16	0	16					14																				
	2	FY 99	A	3	0	3																				A	3				
	2	FY 00	A	4	0	4																					4				
						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			REACHES 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 Ars. Pine Bluff AR	5	10	30		INITIAL		6	9	24	33																				
2	Diehl GMBH Schramberg, GER	15	30	90		REORDER		3	6	21	27																				
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									
						INITIAL																									
						REORDER																									

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. 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. Load, Assemble, and Pack																															
	1	FY98&P	A	15	0	15																									
	1	FY 99	A	2	0	2																									
	1	FY 00	A	4	0	4																									
5. Fuze, M776 MTSQ																															
	2	FY 99	A	19	16	3							3																		
	2	FY 00	A	4	0	4													4												

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			REACH 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 Ars. Pine Bluff AR	5	10	30		1	INITIAL	6	9	24	33	
	2 Diehl GMBH Schramberg, GER	15	30	90			REORDER	3	6	21	27	
							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 02												Fiscal Year 03												L A T E R												
							Calendar Year 02																									Calendar Year 03											
							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	V	C	N	E	B	R	R	A	U	U	E	C	V	C	N	E	B	R	R	A	U	U	E		C	V	C	N	E	B	R	R	A	U	U	E
T	O	C	A	A							P	T	O	O									O	O		O																	
1. Load, Assemble, and Pack																																											
	1	FY 99P	A	17	15	2																																					
	1	FY 00	A	4	0	4																																					
5. Fuze, M776 MTSQ																																											
	2	FY 99	A	19	19																																						
	2	FY 00	A	4	4																																						

MFR	NAME / LOCATION	PRODUCTION RATES			REACH	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS	
		MIN.	1-8-5	MAX.			D +	Prior 1 Oct.				After 1 Oct.
1	Pine Bluff Ars. Pine Bluff AR	5	10	30		1	INITIAL	6	9	24	33	
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 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG 120MM WP SMOKE XM929 (E25504)

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	112	27				8						147
Gross Cost	118.7	35.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	161.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	118.7	35.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	161.2
Initial Spares												
Total Proc Cost	118.7	35.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	161.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M929 White Phosphorus (WP) Smoke cartridge is designed for use with the M120/M121 120mm Battalion Mortar System, which is 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 WP impregnated felt wedges, 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 B; it has been type classified limited production and approved for service use.

JUSTIFICATION:

FY2001 procurement 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 (E25504) MAY 92; M929, standard (E91300) 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 XM929 (E25504)			Weapon System Type: M120/M121 120mm Battalion Mortar System			Date: February 2000		
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								1985	8	235			
2. Shell Body								1813	9	206			
3. Ign Ctg M1020								239	9	27			
4. Fin Assembly M31								279	9	32			
5. Prop Chg M234								506	35	15			
6. Fuze M734A1								2151	9	245			
7. PA153 Container								88	9	10			
8. PA 154 Container								183	4	42			
SubTotal AMMO Hardware								7244					
Production Support Costs													
Production Engineering								90					
Quality Assurance								74					
Acceptance Testing								55					
Interim Transportation													
SubTotal Prod. Support								219					
TOTAL								7463		\$882.34			

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition				Weapon System Type:			P-1 Line Item Nomenclature: CTG 120MM WP SMOKE XM929 (E25504)				
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	Mar-00	Sep-02	8	235	Yes			
2. Shell Body FY 00	Chamberlain MFG, Scranton PA	OPT	TACOM	Jan-00	Jan-01	9	206				
3. Ign Ctg M1020 FY 00	Pocal Industries, Moscow, PA	OPT	TACOM	Jan-00	Dec-00	9	27				
4. Fin Assembly M31 FY 00	Valentec Systems, Mt Arlington, NJ	OPT	TACOM	Jan-00	Dec-00	9	32				
5. Prop Chg M234 FY 00	UNKNOWN	C/FP	TACOM	Mar-00	Jun-01	35	15				
6. Fuze M734A1 FY 00	KDI Cincinnati, OH	OPT	TACOM	Jan-00	Jan-01	9	245				
7. PA153 Container FY 00	United Ammo Container, Milan TN	OPT	TACOM	Jan-00	Jan-01	9	10				
8. PA 154 Container FY 00	Brockway Standard, Atlanta, GA	OPT	TACOM	Jan-00	Oct-00	4	42				

REMARKS: Pine Bluff Arsenal is a Government Owned - Government Operated facility. Work is performed through work orders, not contracts. 120mm Mortar components (Shell bodies, M1020 ignition cartridges, M31 fin, M234 Prop Charges and PA153 & PA154 containers) are procured on the same contracts as for other 120mm mortar rounds.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	13	13	17	17		142
Gross Cost	0.0	0.0	0.0	0.0	51.6	25.0	13.9	14.7	18.1	18.0	0.0	141.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	51.6	25.0	13.9	14.7	18.1	18.0	0.0	141.3
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	51.6	25.0	13.9	14.7	18.1	18.0	0.0	141.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The M929 White Phosphorus (WP) Smoke cartridge is designed for use with the M120/M121 120mm Battalion Mortar System, which is 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 WP impregnated felt wedges, 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, type classified and approved for service use.

JUSTIFICATION:

FY2001 and 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 2000		
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								13027	56	233	6508	26	248
2. Shell Body								11899	58	205	5729	27	210
3. Ign Ctg M1020								1568	58	27	767	27	28
4. Fin Assembly M31								1832	58	31	958	27	35
5. Prop Chg M234								3323	228	15	1657	108	15
6. Fuze M734A1								14116	58	242	6137	27	225
7. PA153 Container								662	66	10	279	27	10
8. PA 154 Container								1245	33	38	577	14	41
SubTotal AMMO Hardware								47672			22612		
Production Support Costs													
Production Engineering								1687			1291		
Quality Assurance								310			315		
Acceptance Testing								610			561		
Interim Transportation								450			190		
SubTotal Prod. Support								3057			2357		
COST - Nonrecurring													
1. First Article Test								842					
SubTotal COST-Nonrecurring								842					
TOTAL								51571		\$920.91	24969		\$950.12

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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	Mar-00	Mar-02	56	233	yes		
FY 01	Pine Bluff Arsenal Pine Bluff, AR	SS/CR	TACOM	Mar-01	Dec-02	26	248	yes		
2. Shell Body										
FY 00	Chamberlain Mfg. Scranton, PA	OPT	TACOM	Jan-00	Jan-01	58	205			
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	31			
FY 01	UNKNOWN	C/FP	TACOM	Mar-01	May-02	27	35			
5. Prop Chg M234										
FY 00	UNKNOWN	C/FP	TACOM	Mar-00	Jun-01	228	15			
FY 01	UNKNOWN	OPT	TACOM	Jan-01	Mar-02	108	15			
6. Fuze M734A1										
FY 00	KDI Cincinnati, OH	OPT	TACOM	Jan-00	Jan-01	58	242			
FY 01	KDI Cincinnati, OH	OPT	TACOM	Jan-01	Jan-02	27	225			
7. PA153 Container										
FY 00	United Ammo Container, Milan TN	OPT	TACOM	Jan-00	Oct-00	66	10	yes		
FY 01	United Ammo Container, Milan TN	OPT	TACOM	Jan-01	Jan-01	27	10	yes		

REMARKS: Pine Bluff Arsenal is a government owned / government operated facility. Work is performed through work orders, not contracts. 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.

Exhibit P-5a, Budget Procurement History and Planning

Date:

February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition	Weapon System Type:	P-1 Line Item Nomenclature: CTG 120MM WP SMOKE M929 (E91300)
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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
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8. PA154 Container FY00 FY01	Brockway Standard, Atlanta GA Brockway Standard, Atlanta GA	OPT OPT	TACOM TACOM	Jan-00 Jan-01	Oct-00 Jan-01	33 14	38 41	yes yes		
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REMARKS: Pine Bluff Arsenal is a government owned / government operated facility. Work is performed through work orders, not contracts. 120mm mortar components (Shell bodies, M1020 ignition cartridge, M31 Fin, M234 Prop charge, and PA153 & PA154 Containers) are procured on same contracts as for other 120mm mortar rounds.

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: CTG 120MM WP SMOKE M929 (E91300)													Date: February 2000																		
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	C	N	B	R	R	A	U	L	G	P	T	V	C	N	B	R	R	A	U	L	G	P														
1. LAP, M929																																						
	1	FY 99P	A	84	0	84																																
	1	FY 00	A	56	0	56																														56		
	1	FY 01	A	26	0	26																														26		
3. Fuze M734A1																																						
	2	FY 99P	A	88	15	73	10	10	10	10	10	10	10	3																								
	2	FY00	A	58	0	58																														58		
	2	FY 00	A	27	0	27																														27		
							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	C	N	B	R	R	A	U	L	G	P	T	V	C	N	B	R	R	A	U	L	G	P							
MFR	PRODUCTION RATES				REACH	MFR Number	ADMIN LEAD TIME		MFR	TOTAL	REMARKS																											
	NAME / LOCATION						D +	Prior 1 Oct.				After 1 Oct.	After 1 Oct.	After 1 Oct.																								
1	Pine Bluff Arsenal Pine Bluff, AR							INITIAL	6	6	24	30	The M734A1 Fuze is used on 3 different U.S. Mortar rounds. Production is near continuous.																									
2	KDI Cincinnati OH						REORDER	3	6	21	27																											
							INITIAL																															
							REORDER																															
							INITIAL																															
							REORDER																															
							INITIAL																															
							REORDER																															
							INITIAL																															
							REORDER																															

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	78	28	20	3	7		5	7	7	7		162
Gross Cost	1250.1	97.7	75.2	14.6	31.4	0.0	37.4	35.6	35.5	35.4	0.0	1612.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	295.0	97.7	75.2	14.6	31.4	0.0	37.4	35.6	35.5	35.4	0.0	657.8
Initial Spares												
Total Proc Cost	295.0	97.7	75.2	14.6	31.4	0.0	37.4	35.6	35.5	35.4	0.0	657.8
Flyaway U/C												
Wpn Sys Proc U/C	3782.0	3489.0	3667.0	5844.0	4484.0		7480.0	5086.0	5071.0	5057.0		4061.0

DESCRIPTION:
 The 120MM M829A2 Armor Piecing Fin-Stabilized, Discarding Sabot with Tracer (APFSDS-T) cartridge is designed to be the most effective anti-armor kinetic energy round fired by the M256 120MM smooth bore cannon of Abrams Main Battle Tank. The propellant system consists of a combustible 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 similar components of the M829A1 APFSDS-T, has been technologically improved to provide significantly greater armor penetration capability than the older round.

JUSTIFICATION:
 Procurement maintains the Abrams Main Battle Tank as a lethal direct fire assault vehicle by building a war reserve inventory of anti-armor cartridges in accordance with the Army's procurement goal.

Acquisition Manager: Project Manager, Tank and Medium-Cal Armament Systems (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 120MM APFSDS-T M829A2/M829E3 (E78001)			Weapon System Type:			Date: February 2000			
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														
Complete Round					9218	2500	3687	28000	7000	4000				
SubTotal AMMO Hardware					9218			28000						
Production Support Costs														
Production Engineering					3616			1987						
Quality Assurance					955			650						
Acceptance Testing					480			750						
SubTotal Prod. Support					5051			3387						
COST - Nonrecurring														
ECP's					340									
SubTotal COST-Nonrecurring					340									
TOTAL					14609		5844	31387		4484				

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 FY99	Primex Technologies St. Petersburg, FL	SS/FP	ARDEC	Apr-99	Mar-00	2500	3687	yes	no	
FY00	Primex Technologies St. Petersburg, FL	SS/FP	ARDEC	Apr-00	Mar-01	7000	4000	yes	no	

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	65	9	3	2	2							81
Gross Cost	483.9	30.9	7.7	10.9	14.7	0.0	0.0	0.0	0.0	0.0	0.0	548.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	483.9	30.9	7.7	10.9	14.7	0.0	0.0	0.0	0.0	0.0	0.0	548.1
Initial Spares												
Total Proc Cost	483.9	30.9	7.7	10.9	14.7	0.0	0.0	0.0	0.0	0.0	0.0	548.1
Flyaway U/C												
Wpn Sys Proc U/C	3545.0	3433.0	2961.0	6238.0	5909.0							3637.0

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 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. 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 and Medium-Cal Armament Systems (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 120MM HEAT-MP-T M830A1 (E78007)			Weapon System Type:			Date: February 2000			
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														
Complete Round					7131	1750	4075	11600	2490	4659				
SubTotal AMMO Hardware					7131			11600						
Production Support Costs														
Production Engineering					2139			1750						
Quality Assurance					440			450						
Acceptance Testing					506			513						
SubTotal Prod. Support					3085			2713						
COST - Nonrecurring														
XM908 Conversion					700			400						
SubTotal COST-Nonrecurring					700			400						
TOTAL					10916		6238	14713		5909				

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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										
FY99	Alliant Techsystems Minneapolis,MN	SS/FP	ARDEC	Mar-99	Aug-00	1750	4075	yes	no	
FY00	Alliant Techsystems Minneapolis,MN	SS/FP	ARDEC	May-00	Aug-01	2490	4659	yes	no	
REMARKS:										

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:
CTG 120MM HEAT-MP-T M830A1 (E78007)

Date:
February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT 99	BAL DUE AS OF 1 OCT 99	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	FY98P	A	77	58	19		2					2	2	2																									
	1	FY99	A	2	0	2																																		2
	1	FY00	A	2	0	2																																		2
	1	FY98P	M.C.	2	0	2			2																															

MFR	NAME / LOCATION	PRODUCTION RATES			REACH 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 TECHSYSTEMS MINNEAPOLIS, MN	2			3	5			
					REORDER	3	8	15	23		
					INITIAL						
					REORDER						
					INITIAL						
					REORDER						
					INITIAL						
					REORDER						

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: CTG 120MM HEAT-MP-T M830A1 (E78007)

Date: February 2000

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												LATE R
							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	
Complete Round	1	FY98P	A	77	77																										
	1	FY99	A	2	2																										
	1	FY00	A	2	0	2									2																
	1	FY98P	M.C.	2	2																										

MFR	NAME / LOCATION	PRODUCTION RATES			REACH	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			D +	Prior 1 Oct.			
1	ALLIANT TECHSYSTEMS, MINNEAPOLIS, MN	2	3	5		INITIAL	3	12	11	23	
						REORDER	3	8	15	23	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	76	74		1386
Gross Cost	558.3	54.5	59.7	58.3	32.4	48.5	47.9	48.7	48.0	48.0	0.0	1004.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	558.3	54.5	59.7	58.3	32.4	48.5	47.9	48.7	48.0	48.0	0.0	1004.3
Initial Spares												
Total Proc Cost	558.3	54.5	59.7	58.3	32.4	48.5	47.9	48.7	48.0	48.0	0.0	1004.3
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. FY01 procurement supports annual peacetime training and builds 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 2000			
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						54397	105	518.07	29530	57	518.07	45072	87	518.07
SubTotal AMMO Hardware						54397			29530			45072		
Production Support Costs														
Production Engineering						3300			2375			2868		
Quality Assurance						97			25			35		
Acceptance Testing						482			437			502		
SubTotal Prod. Support						3879			2837			3405		
TOTAL						58276		555.01	32367		567.84	48477		557.21

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	Primex Tech, Inc. St. Petersburg, FL	CM-1/FP	IOC	Feb-99	Oct-99	50906	#521.48			Dec 98	
FY 99	Alliant Tech Sys, Inc New Brighton, MN	CM-1/FP	IOC	Feb-99	Nov-99	54094	518.07			Jan 99	
FY 00	Primex Tech, Inc. St. Petersburg, FL	CM-2/FP	IOC	Jan-00	Jan-01	28500	518.07	YES		Oct 99	
FY 00	Alliant Tech Sys, Inc New Brighton, MN	CM-2/FP	IOC	Jan-00	Dec-00	28500	518.07	YES		Oct 99	
FY 01	TBS	CM-3/FP	IOC	Jan-01	Oct-01	87000	518.07	YES		Oct 00	
<p>REMARKS: # Actual Contract Price for multiple producers Multi-Year II Procurement FY 99 - FY 03 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</p>											

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: CTG TANK 120MM TP-T M831/M831A1 (E73300)												Date: February 2000													
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 S 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	
Complete Round	1	99	A	54.0		54.0																									
	2	99	A	51.0		51.0	3.0						24.0					24.0													
	1	00	A	29.0		29.0																			14.0						
	2	00	A	29.0		29.0																			15.0						
	3	01	A	87.0		87.0																					87.0				
	1	99	MC	5.0		5.0																									
	2	99	MC	7.0		7.0																									
	3	01	MC	5.0		5.0																					5.0				
		99	ALL	117.0		117.0	3.0	27.0					24.0																		
		00	ALL	58.0		58.0																				14.0	15.0				
		01	ALL	92.0		92.0																					92.0				

MFR		PRODUCTION RATES			REACH	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
NAME / LOCATION	MIN.	1-8-5	MAX.	D +			Prior 1 Oct.	After 1 Oct.			
1 Alliant Tech, MN	13.00	1.00	27.00	5		INITIAL	6	4	9	13	M865/M831A1 training rounds line share at Iowa AAP and have a 50/50 split multi-year procurement between Alliant and Primex. Leadtime reflects entire round cycle for all buys combined. It is not Service specific.
2 Primex St. Petersburg, FL	13.00	1.00	27.00	5		REORDER	6	4	9	13	
3 To Be Selected	13.00	1.00	27.00	5		INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	156	152		3367
Gross Cost	1111.8	115.4	114.8	122.8	85.4	101.5	100.9	100.9	93.3	93.3	0.0	2040.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1111.8	115.4	114.8	122.8	85.4	101.5	100.9	100.9	93.3	93.3	0.0	2040.2
Initial Spares												
Total Proc Cost	1111.8	115.4	114.8	122.8	85.4	101.5	100.9	100.9	93.3	93.3	0.0	2040.2
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. FY01 procurement supports annual peacetime training and builds 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 2000		
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					117768	240	490.70	80966	165	490.70	97649	199	490.70
SubTotal AMMO Hardware					117768			80966			97649		
Production Support Costs													
Production Engineering					4038			3715			2989		
Quality Assurance					51			46			49		
Acceptance Testing					959			625			825		
SubTotal Prod. Support					5048			4386			3863		
TOTAL					122816		511.73	85352		517.28	101512		510.11

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99	Primex Tech, Inc St. Petersburg, FL	CM-1/FP	IOC	Feb-99	Dec-99	117	#492.00			#####
FY 99	Alliant Tech Sys, Inc New Brighton, MN	CM-1/FP	IOC	Feb-99	Jan-00	123	#490.70			#####
FY 00	Primex Tech, Inc St. Petersburg, FL	CM-2/FP	IOC	Jan-00	Oct-00	83	490.70	YES		Oct 99
FY 00	Alliant Tech Sys, Inc New Brighton, MN	CM-2/FP	IOC	Jan-00	Nov-00	82	490.70	YES		Oct 99
FY 01	TBS	CM-3/FP	IOC	Jan-01	Oct-01	199	490.70	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 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										

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

CTG TANK 120MM TPCSDS-T M865 (E73400)

Date:

February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY x1000	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 1												L A S T E R								
							Calendar Year 00												Calendar Year 1																				
							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	99	A	123		123									26		26																						
	2	99	A	117		117										27																							
	1	00	A	83		83																																	
	2	00	A	83		83																																	
	3	01	A	199		199																																	
	1	99	MC	8		8																																	
	2	99	MC	12		12																																	
	3	00	MC	5		5																																	
	3	01	MC	9		9																																	
		99	ALL	260		260																																	
		00	ALL	171		171																																	
		01	ALL	208		208																																	

MFR	NAME / LOCATION	PRODUCTION RATES			REACH	MFR Number	ADMIN LEAD TIME		MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
		MIN.	1-8-5	MAX.			D +	Prior 1 Oct.			
1	Alliant Tech, MN	13.00	1.00	27.00	5	INITIAL	6	4	9	13	M865/M831A1 training rounds line share at Iowa AAP and have a 50/50 split mult-year procurement between Alliant and Primex. Leadtime reflects entire round cycle for all buys combined. It is not Service specific.
2	Primex, St. Petersburg, FL	13.00	1.00	27.00	5	REORDER	6	4	9	13	
3	To Be Selected	13.00	1.00	27.00	5	INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:
CTG TANK 120MM TPCSDS-T M865 (E73400)

Date:
February 2000

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																				
							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	99	A	123	123																																		
	2	99	A	117	117																																		
	1	00	A	83	83																																		
	2	00	A	83	83																																		
	3	01	A	199		199	16	16	16	16	16	17	17	17	17	17	17																						
	1	99	MC	8	8																																		
	2	99	MC	12	12																																		
	3	00	MC	5	5																																		
	3	01	MC	9		9							9																										
		99	ALL	260	260																																		
		00	ALL	171	171																																		
		01	ALL	208		208	16	16	16	16	16	17	26	17	17	17	17	17																					

MFR	NAME / LOCATION	PRODUCTION RATES			REACH 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	13.00	1.00	27.00	5	INITIAL	6	4	9	13	M865/M831A1 training rounds line share at Iowa AAP and have a 50/50 split multi-year procurement between Alliant and Primex. Leadtime reflects entire round cycle for all buys combined. It is not Service specific.
2	Primex, St. Petersburg, FL	13.00	1.00	27.00	5	INITIAL	6	4	9	13	
3	To Be Selected	13.00	1.00	27.00	5	REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	o Complete	Total Prog
Proc Qty	284				124							408
Gross Cost	6.8	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	13.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	6.8	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	13.5
Initial Spares												
Total Proc Cost	6.8	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	13.5
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 6.0 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. 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:

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 2000		
Cost Elements	ID CD	FY 98			FY			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								6373	124	51.36			
Primer Perc M61								90	146	0.62			
SubTotal AMMO Hardware								6463					
Production Support Costs													
Production Engineering								119					
Acceptance Testing								45					
Interim Transportation								2					
Industrial Stock Support								92					
SubTotal Prod. Support								258					
TOTAL								6721		54.16			

Exhibit P-5a, Budget Procurement History and Planning										Date:
Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition										February 2000
Weapon System Type:										
P-1 Line Item Nomenclature: CTG ARTY 105MM BLANK M395 (E21200)										
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	RTI Issue
Load, Assemble, and Pack FY 00	American Ordnance Middletown, IA	SS/FP	IOC	Mar-00	Jan-01	124	51.36	Y		Oct 99
Primer Perc M61 FY 00	TBS	C/FP	IOC	Jan-00	Dec-00	146	0.62	Y		Oct 99
REMARK TBS - To Be Selected										

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CTG ARTY 105MM DPICM XM915 (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	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty		4	5		3							12
Gross Cost	0.0	12.8	9.6	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	27.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	12.8	9.6	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	27.3
Initial Spares												
Total Proc Cost	0.0	12.8	9.6	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	27.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 The 105mm Dual Purpose Improved Conventional Munition (DPICM) 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 Anti-Personnel Improved Conventional Munition (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 Standard September 2000

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 XM915 (E53500)			Weapon System Type:			Date: February 2000			
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	B													
1. Load, Assemble, and Pack								763	2626	293.00				
2. Projectile Metal Parts								1296	2626	493.00				
3. Fuze, ET M762*								328	2626	125.00				
4. Grenade Body Assembly								386	110290	3.00				
5. Fuzes, XM234 Grenade Self Destruct								1146	114660	10.00				
6. Cartridge Case XM217								142	2626	54.00				
7. Container PA 117								197	2626	75.00				
8. Other Hardware*								258	2626	98.00				
SubTotal AMMO Hardware								4516						
Production Support Costs														
Production Engineering							394							
Quality Assurance							105							
Acceptance Testing							181							
Interim Transportation							43							
SubTotal Prod. Support							723							
COST - Nonrecurring														
*Government Furnished Material							-335							
SubTotal COST-Nonrecurring							-335							
TOTAL							4904							

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 FY00	Day & Zimmerman Inc	SS/FP	IOC	Feb-00	Feb-01	2626	293.00	Yes		
2. Projectile Metal Parts FY00	Chamberlain Mfg (Scranton, PA)	SS/FP	TACOM-ARDEC	Apr-00	Feb-01	2626	493.00	Yes		
3. Fuze, ET M762 FY00*	Multiple	Stock	IOC	Stock	Stock	2626		Yes		
4. Grenade Body Assembly FY00	Amron Corporation	SS/FP	TACOM-ARDEC	Apr-00	Feb-01	110290	3.00	Yes		
5. Fuzes, XM234 Grenade Self-Destruct FY00	KDI Precision Products (Cinn,OH)	SS/FP	TACOM-ARDEC	Apr-00	Feb-01	114660	10.00	No		
6. Cartridge Case M217/Primer M28 FY00	Unknown	C/FP	TACOM-ARDEC	Apr-00	Feb-01	2626	54.00	Yes		
7. Containers/Pallets FY00	Various	C/FP	TACOM-ARDEC	Apr-00	Feb-01	2626	75.00	Yes		

REMARKS: *Government Furnished Equipment.
GFM is also in the Other Hardware line on the P5A. GFM includes Comp A5 and M10 Propellant.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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				7								7
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. The M927 is used in lieu of the M913 HERA.

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 2000			
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						1153	6804	169.45						
Warhead Body Assembly						1028	6941	148.11						
Rkt Motor Grain						1026	6941	147.76						
Rkt Motor Body						447	6941	64.43						
Ignition Delay						498	6941	71.78						
Ctg Case Steel M14B4						75	6941	10.83						
*M67 Prop Charge						133	6804	19.54						
Primer 28B2						26	6941	3.69						
*TNT Type I Flake (LB)						48	34191	1.41						
Supplemental Charge						58	6941	8.39						
SubTotal AMMO Hardware						4492								
Production Support Costs														
Production Engineering						448								
Quality Assurance						11								
Acceptance Testing						52								
Interim Transportation						49								
Industrial Stock Support						87								
SubTotal Prod. Support						647								
COST - Nonrecurring														
Government Furnished Material						-181								
SubTotal COST-Nonrecurring						-181								
TOTAL						4958		728.68						

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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	TBS	C/FP	IOC	May-00	Apr-01	6804	169.45	Y		Feb 00
Warhead Body Assembly FY 99	TBS	C/FP	IOC	May-00	Feb-01	6941	148.11	Y		Feb 00
Rkt Motor Grain FY 99	TBS	C/FP	IOC	May-00	Jan-01	6941	147.76	Y		Feb 00
Rkt Motor Body FY 99	TBS	C/FP	IOC	May-00	Jan-01	6941	64.43	Y		Feb 00
Ignition Delay FY 99	TBS	C/FP	IOC	May-00	Jan-01	6941	71.78	Y		Feb 00
Ctg Case Steel M14B4 FY 99	TBS	C/FP	IOC	May-00	Jan-01	6941	10.83	Y		Feb 00
*M67 Prop Charge FY 99	Stock Issue	N/A	N/A	N/A	N/A	6804	N/A			
Primer 28B2 FY 99	TBS	C/FP	IOC	May-00	Jan-01	6941	3.69	Y		Feb 00
*TNT Type I Flake (LB) FY 99	Stock Issue	N/A	N/A	N/A	N/A	34191	N/A			

REMARKS: *Government Furnished Material
 TBS - To Be Selected

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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	Aug-99	Mar-00	6941	8.39	Y		Feb 00

REMARKS: TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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				12				7	6		4137
Gross Cost	255.1	0.0	0.0	0.0	7.9	0.1	0.0	0.0	6.1	6.1	0.0	275.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	255.1	0.0	0.0	0.0	7.9	0.1	0.0	0.0	6.1	6.1	0.0	275.3
Initial Spares												
Total Proc Cost	255.1	0.0	0.0	0.0	7.9	0.1	0.0	0.0	6.1	6.1	0.0	275.3
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:

Procurement supports 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 2000			
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														
Proj 105 M314A2E1														
*Ctg Case Steel M14B4														
*Charge Prop														
Prop M1 SP (LB)														
*Prop M1 MP (LB)														
*Primer 28B2														
*Fuze Artillery Elec Time M577														
Container Fiber M105A3														
SubTotal AMMO Hardware									9127					
Production Support Costs														
Production Engineering														
Quality Assurance														
Interim Transportation														
Industrial Stock Support														
SubTotal Prod. Support									214			130		
COST - Nonrecurring														
Government Furnished Material														
SubTotal COST-Nonrecurring									-1404					
TOTAL									7937		678.66	130		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

Appropriation / Budget Activity/Serial No:	Weapon System Type:			P-1 Line Item Nomenclature:						
PROCUREMENT OF AMMUNITION / 1 / Ammunition				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	TBS	C/FP	IOC	Aug-00	Aug-01	11695	537.17	Y		Oct 99
Proj 105 M314A2E1** FY 00	TBS	C/FP	IOC	Aug-00	Jun-01	11929	106.21	Y		Oct 99
*Ctg Case Steel M14B4 FY 00	Stock Issue	N/A	N/A	N/A	N/A	11929	N/A			
*Charge Prop FY 00	Stock Issue	N/A	N/A	N/A	N/A	11929	N/A			
*Prop M1 SP (LB) FY 00	Stock Issue	N/A	N/A	N/A	N/A	7602	N/A			
*Prop M1 MP (LB) FY 00	Stock Issue	N/A	N/A	N/A	N/A	26080	N/A			
*Primer 28B2 FY 00	Stock Issue	N/A	N/A	N/A	N/A	23172	N/A			
*Fuze Artillery, Mech Time, M577 FY 00	Stock Issue	N/A	N/A	N/A	N/A	11695	N/A			
Container Fiber M105A3 FY 00	TBS	C/FP	IOC	Aug-00	May-01	11929	14.53	Y		Oct 99

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

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	14.6	14.7	0.0	0.0	0.0	0.0	0.0	247.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	194.4	11.6	12.3	0.0	14.6	14.7	0.0	0.0	0.0	0.0	0.0	247.6
Initial Spares												
Total Proc Cost	194.4	11.6	12.3	0.0	14.6	14.7	0.0	0.0	0.0	0.0	0.0	247.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

This is a materiel change to the M825 series 155mm white phosphorous (WP) smoke projectile which 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. FY01 procurement supports 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 2000

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	69		17							380
Gross Cost	105.2	39.9	34.6	0.0	9.8	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	9.8	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	9.8	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.

JUSTIFICATION: The FY 2000 budget provides for production of war reserve requirements. This item is Code A, approved for service use. The M795 will support the following howitzers: M198, M109 Series, including Paladin, and the Trilateral FH70 and Crusader.

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 2000		
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							1949	17	116				
Metal Parts							3550	17	204				
Metal Pallets							408	3	163				
Lifting Plugs							122	17	7				
TNT							1297	260	5				
SubTotal AMMO Hardware							7326						
Production Support Costs													
Production Engineering							1881						
Quality Assurance							80						
Acceptance Testing							496						
SubTotal Prod. Support							2457						
TOTAL							9783						

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Load, Assemble, and Pack FY 00	American Ordnance, Iowa AAP, IA	Option	ARDEC, Picatinny Arsenal	Mar-00	Apr-02	17	116	Yes		
Metal Parts FY 00	Chamberlain Mfg, Scranton AAP, PA	Option	ARDEC, Picatinny Arsenal	Mar-00	Feb-02	17	204	Yes		
Metal Pallets FY 00	Nomura, Milan, IL	Option	ARDEC, Picatinny Arsenal	Mar-00	Feb-02	3	163	Yes		
Lifting Plugs FY 00	H/R Products, South Bend, IN	Option	ARDEC, Picatinny Arsenal	Mar-00	Feb-02	17	7	Yes		
TNT FY 00	TBS	C/FFP	ARDEC, Picatinny Arsenal	Mar-00	Feb-02	260	5	Yes		

REMARKS:

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: PROJ ARTY 155MM HE M795 (E66800)																Date: February 2000									
COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	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	FY98&P	A	362.7	28.5	334.2	7.4	6.9	6.9	6.9	6.3	6.3	6.3	6.4	6.1	3.0	6.0	6.1	7.0	5.1	6.3	8.7	10.0	10.4	10.0	9.5	10.3	8.1	8.6	10.3	155.3
	1	FY 00	A	16.8		16.8																		A							16.8
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
MFR	NAME / LOCATION	PRODUCTION RATES			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	American Ordnance, Iowa AAP, IA	7	11	28		1	INITIAL	1	16	26	42																				
							REORDER	3	6	25	31																				
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	233	600	200			30						1063
Gross Cost	74.7	93.6	65.3	31.3	14.9	14.9	0.0	0.0	0.0	0.0	0.0	294.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	74.7	93.6	65.3	31.3	14.9	14.9	0.0	0.0	0.0	0.0	0.0	294.8
Initial Spares												
Total Proc Cost	74.7	93.6	65.3	31.3	14.9	14.9	0.0	0.0	0.0	0.0	0.0	294.8
Flyaway U/C												
Wpn Sys Proc U/C												

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 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. The Army has limited SADARM procurements after FY 1998 subject to results of an operational Limited User Test (LUT) in April 2000. The FY 1999 and FY 2000 planned procurements are for zero quantity. Funding appropriated in FY 1999 and FY 2000 provides Government engineering and test support to continued prior year hardware deliveries. Additionally, funding will be provided to the Prime Contractor to stretch out the prior year deliveries thereby avoiding a production break and the associated costs of restarting the production line. Following the LUT, the Army will make a decision regarding the follow-on production of SADARM.

Type Classification Dates: Low Rate Production: January 1995
 Milestone Approval: Milestone IIIA (DAB): March 1995
 ACQUISITION MANAGER: PM ARMS

NOTE: Quantities have been updated since the Future Years Defense Program (FYDP).

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 2000		
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													
Complete Round											10800	30	360000
SubTotal AMMO Hardware											10800		
Production Support Costs													
Production Engineering					6208			4239			3022		
Quality Assurance					421			285			285		
Acceptance Testing/Reliability Testing					1573			800			800		
Production Testing					1617								
Contract Restructure for Production Stretch Out					10730			9614					
SubTotal Prod. Support					20549			14938			4107		
COST - Nonrecurring													
First Article Testing													
Value Engineering & Royalties					9456								
Target Replacement					1270								
SubTotal COST-Nonrecurring					10726								
TOTAL					31275			14938			14907		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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
Complete Round FY 01	Aerojet, Azusa CA	FFP/SS	ARDEC, Picatinny Arsenal	Dec-00	Dec-01	30	360000	Yes		

REMARKS:

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

PROJ ARTY 155MM SADARM M898 (E66300)

Date:

February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	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		
Complete Round	1	98&P	A	1033	288	745	12	12	3	4		10	20	8	4	6	17	35		22	20		73	96	20	20	20	20	20	20	20	283
	1	FY01	A	30	0	30																									30	

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	20	50	125		1	INITIAL	3	6	19	25	
							REORDER	3	3	14	17	
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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

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						117	110	110				337
Gross Cost	0.0	0.0	0.0	0.0	8.0	47.7	47.6	47.5	0.0	0.0	0.0	150.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	8.0	47.7	47.6	47.5	0.0	0.0	0.0	150.8
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	8.0	47.7	47.6	47.5	0.0	0.0	0.0	150.8
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) April 2001
 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 (RADAM) (E67505)			Weapon System Type:			Date: February 2000		
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	\$
HARDWARE LOAD, ASSEMBLE AND PACK COMPLETE ROUND								5625			43875	117	375
SUBTOTAL								5625			43875		
PRODUCTION SUPPORT COSTS PRODUCTION ENGINEERING QUALITY ASSURANCE ACCEPTANCE TESTING								1297			840		
								556			389		
											2570		
SUBTOTAL								1853			3799		
NON RECURRING COSTS Tooling Storage and Handling								90					
								399					
SUBTOTAL								489					
TOTAL								7967			47674		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: REMOTE AREA DENIAL ARTILLERY MUNITION (RADAM) (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 FY 01	Day & Zimmerman, Lone Star AAP	SS/FP	ARDEC	Dec-00	Apr-01	117	375	Yes		

REMARKS: FY00 funds will be used to procure long leadtime components.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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			243	118	175	236	185	164	156		27882
Gross Cost	950.7	0.0	0.0	42.3	24.9	35.2	45.0	35.5	35.8	35.8		1205.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	950.7	0.0	0.0	42.3	24.9	35.2	45.0	35.5	35.8	35.8	0.0	1205.2
Initial Spares												
Total Proc Cost	950.7	0.0	0.0	42.3	24.9	35.2	45.0	35.5	35.8	35.8	0.0	1205.2
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. FY01 procurement supports annual peacetime training requirements and builds 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 2000		
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					17197	243	70.91	8103	118	68.52	11987	175	68.69
Proj M107 MPTS					19655	162	121.05	16048	121	133.04	18645	179	104.74
*Proj M107 MPTS					9094	85	107.00						
*Comp B Type 1 Grade A (LB)					6090	3929	1.55	2970	1916	1.55	4439	2839	1.56
*TNT Type 1 Flake (LB)					2325	1649	1.41	1134	804	1.41			
Supplemental Charge						203							
Plug, Shock Attenuating					803	162	4.95	603	121	5.00	909	179	5.12
*Plug, Shock Attenuating					146	85	1.72						
Grommet					166	163	1.02	126	122	1.03	186	180	1.04
*Grommet					68	85	0.80						
*Metal Pallet Assy					5992	30	196.87	2922	15	196.89			
*Supplemental Charge											640	178	3.60
Reclaim OP F/Supp Chg											992	178	5.58
SubTotal AMMO Hardware					61536			31906			37798		
Production Support Costs													
Production Engineering					2177						557		
Quality Assurance					79			1			13		
Acceptance Testing					127						1076		
Interim Transportation					614						265		
Industrial Stock Support					1519						548		
SubTotal Prod. Support					4516			1			2459		
COST- Nonrecurring													
Government Furnished Material					-23716			-7026			-5079		
SubTotal COST-Nonrecurring					-23716			-7026			-5079		
TOTAL					42336		174.57	24881		210.38	35178		201.56

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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	CM-2/FP	IOC	Mar-00	Mar-01	44	68.52			Dec 98	
FY 99	American Ordnance (IAAP) Middletown, IA	CM-1/FP	IOC	Feb-99	Jun-00	199	71.43			Nov 98	
FY 00	American Ordnance (IAAP) Middletown, IA	CM-2/FP	IOC	Mar-00	Jun-01	118	68.52	Y		Dec 99	
FY 01	American Ordnance (IAAP) Middletown, IA	CM-3/FP	IOC	Mar-01	Mar-02	175	68.69	Y		Dec 00	
*Proj M107 Metal Parts ** FY 99***	Chamberlain Mfg (SCAAP) Scranton, PA	SS/FP	IOC	Aug-99	Jul-00	118	121.05			May 99	
FY 99	TBS	C/FP	IOC	Mar-00	Jan-01	44	121.05			May 99	
FY 99	Stock Issue	N/A	IOC	N/A	N/A	85	N/A				
FY 00***	Chamberlain Mfg (SCAAP) Scranton, PA	SS/FP	IOC	Mar-00	Apr-01	121	133.04	Y		Dec 99	
FY 01***	Chamberlain Mfg (SCAAP) Scranton, PA	SS/FP	IOC	Mar-01	Jan-02	179	104.74	Y		Dec 00	
*Comp B Type 1 Grade A (LB) FY 99	Stock Issue	N/A	N/A	N/A	N/A	705	N/A				
FY 99	Stock Issue	N/A	N/A	N/A	N/A	3224	N/A				
FY 00	Stock Issue	N/A	N/A	N/A	N/A	1916	N/A				
FY 01	Stock Issue	N/A	N/A	N/A	N/A	2839	N/A				
*TNT Type 1 Flake (LB) FY 99	Stock Issue	N/A	N/A	N/A	N/A	1649	N/A	Y			
FY 00	Stock Issue	N/A	N/A	N/A	N/A	804	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 2000

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	TBS	C/FP	IOC	Mar-00	Aug-00	44	4.95			
FY 99	Stock Issue	N/A		N/A	N/A	85	N/A			
FY 00	TBS	C/FP	IOC	Mar-00	Dec-00	121	5.00	Y		Oct 99
FY 01	TBS	C/FP	IOC	Mar-01	Jan-02	179	5.11	Y		Oct 00
Grommet										
FY 99	Midgard Inc, Greenlake, PA	C/FP	IOC	Oct-99	Feb-00	118	1.02			Jul 99
FY 99	TBS	C/FP	IOC	Mar-00	Nov-00	45	1.03			Dec 99
FY 00	TBS	C/FP	IOC	Mar-00	Nov-00	122	1.03	Y		Oct 99
FY 01	TBS	C/FP	IOC	Mar-01	Nov-01	180	1.04	Y		Oct 00
*Grommet										
FY 99	Stock Issue	N/A		N/A	N/A	85	N/A			
*Metal Pallet Assy										
FY 99	Stock Issue	N/A	N/A	N/A	N/A	30	N/A			
FY 00	Stock Issue	N/A	N/A	N/A	N/A	15	N/A			
*Supplemental Charge										
FY 01	Stock Issue	N/A	N/A	N/A	N/A	178	N/A			
Reclaim OP F/Supp Chg										
FY 01	TBS	C/FP	IOC	Jan-01	Sep-01	178	5.58	Y		Oct 00

REMARKS: * Government Furnished Material
TBS - To Be Selected

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	164	555	760	688	582		3116
Gross Cost	0.0	0.0	0.0	0.0	42.6	27.4	57.7	77.6	68.1	57.7	0.0	331.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	42.6	27.4	57.7	77.6	68.1	57.7	0.0	331.1
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	42.6	27.4	57.7	77.6	68.1	57.7	0.0	331.1
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The Modular Artillery Charge System (MACS) is 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 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.

Type Classification Date: XM231 25 Oct 99, XM232 2Q FY00

Acquisition Manager: PM Crusader

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: MODULAR ARTILLERY CHARGE SYSTEM (MACS) (ER8021)			Weapon System Type:			Date: February 2000		
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								15200	367	41	7100	164	43
Ignition System Propellant								500	25	20	250	12	21
Combustible Case Sets								14401	400	36	6780	180	38
Propellant (Single Base)								8910	1200	7	4590	540	9
Propellant (Triple Base)											2900	360	8
SubTotal AMMO Hardware								39011			21620		
Production Support Costs													
Production Engineering								1790			1800		
Quality Assurance								500			600		
Acceptance Testing											500		
Transportation											300		
SubTotal Prod. Support								2290			3200		
COST - Nonrecurring													
First Article Testing											600		
Value Engineering								500			450		
Inert Training Devices								800			800		
Fielding											762		
SubTotal COST-Nonrecurring								1300			2612		
TOTAL								42601		116	27432		167

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: MODULAR ARTILLERY CHARGE SYSTEM (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 \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
AMMUNITION HARDWARE										
Load, Assemble, and Pack										
FY 00	TBS	C/FFP	Picatinny Arsenal,NJ	Jun-00	Jan-01	367	41	Yes		Feb 00
FY 01	TBS	C/FFP	Picatinny Arsenal,NJ	Dec-00	Jan-02	164	43	No		Sep 00
Ignition System Propellant										
FY 00	Primex Tech, St. Marks,Fla	SS/FFP	Picatinny Arsenal,NJ	Apr-00	Nov-00	25	20			Jul 99
FY 01	Primex Tech, St. Marks,Fla	Option	Picatinny Arsenal,NJ	Dec-00	Nov-01	12	21			
Combustible Case Sets										
FY 00	ARMTEC, Coachella, CA	SS/FFP	Picatinny Arsenal,NJ	Apr-00	Nov-00	400	36			Jul 99
FY 01	ARMTEC, Coachella, CA	SS/FFP	Picatinny Arsenal,NJ	Dec-00	Nov-01	180	38			Jul 00
Propellant (Single Base)										
FY 00	TBS	C/FFP	TBS	May-00	Dec-00	1200	7			Jul 99
FY 01	TBS	Option	TBS	Dec-00	May-01	540	9			
Propellant (Triple Base)										
FY 01	TBS	C/FFP	TBS	Feb-01	Oct-01	360	8			Dec 00
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

ARTILLERY FUZES, ALL TYPES (ER8000)

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	504.6	0.3	19.7	6.8	45.7	67.0	67.6	76.0	75.6	67.2	0.0	930.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	504.6	0.3	19.7	6.8	45.7	67.0	67.6	76.0	75.6	67.2	0.0	930.5
Initial Spares												
Total Proc Cost	504.6	0.3	19.7	6.8	45.7	67.0	67.6	76.0	75.6	67.2	0.0	930.5
Flyaway U/C												
Wpn Sys Proc U/C												

This budget line includes Artillery Fuzes, All Types.

Exhibit P-5, Weapon Ammo Cost Analysis		Appropriation/ Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition			P-1 Line Item Nomenclature: ARTILLERY FUZES, ALL TYPES (ER8000)			Weapon System Type:			Date: February 2000		
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
FUZE ARTY ELEC TIME M767					4967	27	184	31790	257	124	5343	46	116
FUZE ARTY PROX M732					325								
FUZE MULTI OPTION					1502	2	751	13951	45	310	45633	164	278
FUZE ARTY ELEC TIME M762											16029	125	128
TOTAL					6794			45741			67005		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	257	46	27	59	42	39		901
Gross Cost	41.5	0.3	19.7	5.0	31.8	5.3	3.6	6.8	4.8	4.5	0.0	123.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	41.5	0.3	19.7	5.0	31.8	5.3	3.6	6.8	4.8	4.5	0.0	123.3
Initial Spares												
Total Proc Cost	41.5	0.3	19.7	5.0	31.8	5.3	3.6	6.8	4.8	4.5	0.0	123.3
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. In tandem with the M762A1 Fuze, the M767A1 Fuze is currently being qualified by Bulova Technologies under a contract award to conduct a Materiel Change Program (MCP) on the basic M762 and M767 ET Fuze designs. Bulova is also under contract to deliver the initial M767A1 production quantity. The MCP 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 without need for any tool and (2) remote inductive setting 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. The Fuze will also comply with Rationalization, Standardization and Interoperability (RSI) agreements for artillery weapon systems. The fuze utilizes a quartz crystal for its time base providing greater accuracy without increased cost. Because of the faster and easier setting methods, employment of the M767A1 Fuze will result in fewer errors over the current M767 Fuze as well as over the M582 Mechanical Time Super Quick (MTSQ) Fuze that it replaces. The M767A1 Fuze is also considerably more accurate than the MTSQ, especially over extended ranges. Since the M767A1 and the M762A1 Fuzes will be produced on the 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. This item will be code A, approved for service use.

JUSTIFICATION:
 The FY01 procurement continues to support testing, training and war reserve requirements of Improved Conventional Munitions (ICM). The M767A1 will replace the Mechanical Time fuzes which were phased out in FY 1990.
 TC Standard: M767 September 1988; M767A1 December 1999

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 2000		
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													
1. Load, Assemble, and Pack	A				202	26904	7.50	2574	257424	10.00	358	45940	7.80
2. Fuze Metal Parts - M767					2241	17256	129.89				4361		
3. Fuze Metal Parts - M767A1					1013	9648	105.00	25742	257424	100.00	38	45904	95.00
4. Box, Metal, M2A1					23	3500	6.70	203	32600	6.25		5900	6.37
SubTotal AMMO Hardware					3479			28519			4757		
Production Support Costs													
Production Engineering					161			1079			210		
Quality Assurance					60			420			90		
Acceptance Testing					150			1475			267		
Interim Transportation					7			56			9		
SubTotal Prod. Support					378			3030			576		
COST - Nonrecurring													
First Article Testing					100			200					
Product Improvement					21			41			10		
Energetics Explosives Components					989								
SubTotal COST-Nonrecurring					1110			241			10		
TOTAL					4967			31790			5343		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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										
FY99	Bulova	C/FP	TACOM-ARDEC	Feb-99	Oct-99	17256	7.50	Yes		
2. Fuze Metal Parts										
FY99	Bulova	C/FP	TACOM-ARDEC	Feb-99	Sep-00	17256	129.89	Yes		
M767A1										
1. Load, Assemble, and Pack										
FY99	Bulova	C/FP	TACOM-ARDEC	Mar-00	Jun-01	9648	7.50	Yes		
FY00	Bulova	SS/FP	TACOM-ARDEC	Mar-00	Oct-01	263376	7.50	Yes		
FY01	Unknown	C/FP	TACOM-ARDEC	Apr-01	Oct-02	45904	7.80	Yes		
2. Fuze Metal Parts										
FY99	Bulova	C/FP	TACOM-ARDEC	May-99	Apr-01	9648	103.00	No	Apr00	
FY00	Bulova	C/FP	TACOM-ARDEC	Mar-00	Jul-01	263376	100.00	No	Apr00	
FY01	Unknown	C/FP	TACOM-ARDEC	Apr-01	Jul-02	45904	95.00	No	Apr00	

REMARKS: The work for Load, Assemble, and Pack, may be included within the Fuze Metal Parts Contract. It is anticipated that the FY00 M767A1 buy will be awarded sole source to Bulova Technologies who is currently under contract to conduct a Materiel Change Program to qualify the M767A1 for production.

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: **FUZE ARTY ELEC TIME M767 (E61200)**

Date: **February 2000**

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. 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	
1. Load, Assemble, & Pack M767	1	98	A	21	21																										
2. Fuze Metal Parts M767	1	98	A	21	21																										
1. Load, Assemble, & Pack M767	1	99	A	17	0	17																									
2. Fuze Metal Parts M767	1	99	A	17	17																										
1. Load, Assemble, & Pack M767	1	98	A	62	0	62																					62				
	1	99	A	10	0	10																					10				
	1	00	A	257	0	257																					257				
	2	01	A	46	0	46																					46				
	1	98	A	62	0	62																					62				
	1	99	A	10	0	10																					10				
	2	00	A	257	0	257																					257				
	2	01	A	46	0	46																					46				
1. Load, Assemble, & Pack M767	1	98	MC	24	24																										
2. Fuze Metal Parts M767	1	98	MC	24	24																										
1. Load, Assemble, & Pack M767	1	99	MC	10	0	10																									
2. Fuze Metal Parts M767	1	99	MC	10	10																										
1. Load, Assemble, & Pack M767	2	00	MC	20	0	20																					20				
2. Fuze Metal Parts M767A1	2	00	MC	20	0	20																					20				

MFR	NAME / LOCATION	PRODUCTION RATES			REACHES 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	Bulova, Lancaster, PA	9			22	50			
2	Unknown					REORDER	4	7	15	22	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

FUZE ARTY ELEC TIME M767 (E61200)

Date:

February 2000

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												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									
1. Load, Assemble, & Pack M767	1	98	A	21	21																																		
2. Fuze Metal Parts M767	1	98	A	21	21																																		
1. Load, Assemble, & Pack M767	1	99	A	17	17																																		
2. Fuze Metal Parts M767	1	99	A	17	17																																		
1. Load, Assemble, & Pack M767	1	98	A	62	0	62																																	
	1	99	A	10	0	10																																	
	1	00	A	257	0	257																																	
	2	01	A	46	0	46																																	
	1	98	A	62	0	62	4	9	13	15	15	6																											46
	1	99	A	10	0	10																																	
	2	00	A	257	0	257																																	
	2	01	A	46	0	46																																	
1. Load, Assemble, & Pack M767	1	98	MC	24	24																																		
2. Fuze Metal Parts M767	1	98	MC	24	24																																		
1. Load, Assemble, & Pack M767	1	99	MC	10	10																																		
2. Fuze Metal Parts M767	1	99	MC	10	10																																		
1. Load, Assemble, & Pack M767	2	00	MC	20	0	20																																	
2. Fuze Metal Parts M767A1	2	00	MC	20	0	20																																	

							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				REACH	MFR	ADMIN LEAD TIME		MFR	TOTAL	REMARKS																			
R	NAME / LOCATION	MIN.	1-8-5	MAX.	D +	Number	Prior 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.																				
1	Bulova, Lancaster, PA	9	22	50		INITIAL	4	7	15	22																				
2	Unknown					REORDER	4	7	15	22																				
						INITIAL																								
						REORDER																								
						INITIAL																								
						REORDER																								
						INITIAL																								
						REORDER																								
						INITIAL																								
						REORDER																								

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

FUZE ARTY ELEC TIME M767 (E61200)

Date:

February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	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	R	P	A	U	U	E	C	O	E	A	E	A	R	P	A	U	U	E	
1. Load, Assemble, & Pack M767	1	98	A	21	21																										
2. Fuze Metal Parts M767	1	98	A	21	21																										
1. Load, Assemble, & Pack M767	1	99	A	17	17																										
2. Fuze Metal Parts M767	1	99	A	17	17																										
1. Load, Assemble, & Pack M767	1	98	A	62	62																										
	1	99	A	10	10																										
	1	00	A	257	257																										
	2	01	A	46	0	46	46																								
	1	98	A	62	62																										
	1	99	A	10	10																										
	2	00	A	257	257																										
	2	01	A	46	46																										
1. Load, Assemble, & Pack M767	1	98	MC	24	24																										
2. Fuze Metal Parts M767	1	98	MC	24	24																										
1. Load, Assemble, & Pack M767	1	99	MC	10	10																										
2. Fuze Metal Parts M767	1	99	MC	10	10																										
1. Load, Assemble, & Pack M767	2	00	MC	20	20																										
2. Fuze Metal Parts M767A1	2	00	MC	20	20																										

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED +	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							
1	Bulova, Lancaster, PA	9	22	50			4	7	15	22	
2	Unknown						4	7	15	22	

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	164	294	314	321	324		1464
Gross Cost	0.0	0.0	0.0	1.5	14.0	45.6	52.8	53.4	53.5	53.4	0.0	274.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	1.5	14.0	45.6	52.8	53.4	53.5	53.4	0.0	274.3
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	1.5	14.0	45.6	52.8	53.4	53.5	53.4	0.0	274.3
Flyaway U/C												
Wpn Sys Proc U/C				751	310	278	180	170	167	165		187

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. The acquisition strategy for the FY00 and FY01 will be a 2-year multiyear production contract.

ACQUISITION MANAGER: CRUSADER

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 2000		
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					1445	2	723	12200	45	271	42750	164	261
Comp PBX N-5 Explosives, lbs.)					5	0	49	79	2	35	290	8	35
M2A1 Ammo Cans					2	0	8	41	6	7	160	21	8
SubTotal AMMO Hardware					1452			12320			43200		
Production Support Costs													
Production Engineering					50			400			500		
Quality Assurance								220			210		
Acceptance Testing								11			1400		
Interim Transportation											23		
SubTotal Prod. Support					50			631			2133		
COST - Nonrecurring													
First Article Testing								1000					
Fielding											300		
SubTotal COST-Nonrecurring								1000			300		
TOTAL					1502			13951			45633		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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
XM782 Complete Fuze										
FY 99	TBS	C/FFP	Picatinny Arsenal, NJ	Jun-00	Dec-01	2	723	yes		Feb 00
FY 00	TBS	CM-1/FP	Picatinny Arsenal, NJ	Jun-00	Dec-01	27	271	yes		Feb 00
FY 00	TBS	CM-1/FP	Picatinny Arsenal, NJ	Jun-00	Dec-01	18	271	yes		Feb 00
FY 01	TBS	CM-2/FP	Picatinny Arsenal, NJ	Jun-00	Dec-02	98	261	yes		Feb 00
FY 01	TBS	CM-2/FP	Picatinny Arsenal, NJ	Jun-00	Dec-02	66	261	yes		Feb 00
Comp PBX N-5 Explosives, lbs.										
FY 99	TBS	C/FFP	Rock Island, IL	Jun-00	Dec-00	0	49	no		
FY 00	TBS	C/FFP	Rock Island, IL	Jun-00	Dec-00	2	35	no		
FY 01	TBS	C/FFP	Rock Island, IL	Mar-01	Dec-01	8	35	no		
M2A1 Ammo Cans										
FY 99	TBS	C/FFP	Rock Island, IL	Mar-00	Dec-00	0	8	yes		
FY 00	TBS	C/FFP	Rock Island, IL	Mar-00	Dec-00	6	7	yes		
FY 01	TBS	C/FFP	Rock Island, IL	Mar-01	Dec-01	21	8	yes		

REMARKS: The FY 00 and FY 01 multiyear contract will be awarded as a 40/60 split among two fuze producers.

FY 100 / 101 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: FUZE MULTI OPTION (ER8017)													Date: February 2000												
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												
							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		2																									
	1	FY 00	A	27		27																									
	2	FY 00	A	18		18																									
	1	FY 01	A	98		98																									
	2	FY 01	A	66		66																									

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: FUZE ARTY ELEC TIME M762 (E76300)

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	716					125	91	132	148	155		1367
Gross Cost	68.7	0.0	0.0	0.0	0.0	16.0	11.2	15.7	17.3	9.2	0.0	138.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	68.7	0.0	0.0	0.0	0.0	16.0	11.2	15.7	17.3	9.2	0.0	138.1
Initial Spares												
Total Proc Cost	68.7	0.0	0.0	0.0	0.0	16.0	11.2	15.7	17.3	9.2	0.0	138.1
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The M762A2 Electronic Time (ET) Fuze is used with the 105mm and 155mm cargo carrying artillery projectiles. In tandem with the M767A1 Fuze, the M762A1 Fuze is currently being qualified by Bulova Technologies under a contract award to conduct a Materiel Change Program (MCP) on the basic M762 and M767ET Fuze designs. Bulova is also under contract to deliver the initial M767A1 production quantity. The MCP improves producibility, upgrades the technology, provides a more robust design, and enhances the user interface. The M762A1 will retain the existing dual setting capability: (1) Hand set without need for any tool, and (2) remote inductive setting for higher rates of fire. Inductive setting will support development testing of the 155mm Crusader Weapon system. The M762A1 will be available for use by the Crusader when fielded. In addition to the US requirements, the Fuze will also comply with Rationalization, Standardization and Interoperability (RSI) agreements for artillery weapon systems. The fuze utilizes a quartz crystal for its time base providing greater accuracy without increased cost. Because of the faster and easier setting methods, employment of the M762A1 Fuze will result in fewer setting errors over the current M762 Fuze as well as over the M577 Mechanical Time Super Quick (MTSQ) Fuze that it replaces. The M762A1 Fuze is also considerably more accurate than the MTSQ, especially over extended ranges. Since the M762A1 and the M767A1 Fuzes will be produced on the same production line, the procurement of the M762A1 will accelerate the achievement of a unit cost reduction for the entire ET artillery fuze family. This item will be code A, approved for service use.

JUSTIFICATION: The FY 01 procurement continues to support testing, training and war reserve requirements of the family of Improved Conventional Munitions (ICM).
 TC Standard: M762 September 1988
 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: FUZE ARTY ELEC TIME M762 (E76300)			Weapon System Type:			Date: February 2000		
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	A										13973	147088	95.00
1. Fuze, ET, M762A1												118	18500
2. Box, Metal Box, M2A1													
SubTotal AMMO Hardware											14091		
Production Support Costs													
Production Engineering											570		
Quality Assurance											200		
Acceptance Testing											900		
Interim Transportation											40		
SubTotal Prod. Support											1710		
COST - Nonrecurring													
First Article Testing											200		
Government Furnished Material											28		
SubTotal COST-Nonrecurring											228		
TOTAL											16029		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: FUZE ARTY ELEC TIME M762 (E76300)					
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. Fuze, ET, M762A1 FY01	Unknown	C/FP	TACOM-ARDEC	Mar-01	Sep-02	147088	95.00	No	Apr00	
2. Box, Metal, M2A1 FY01	Unknown	C/FP	TACOM-ARDEC	Mar-01	May-02	18500	6.37	No	Apr00	

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	1.1	8.0	3.9	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	1.1	8.0	3.9	5.7	0.0	0.0	0.0	0.0	66.3
Initial Spares												
Total Proc Cost	45.7	1.9	0.0	1.1	8.0	3.9	5.7	0.0	0.0	0.0	0.0	66.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
 This budget lines 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 2000		
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	Each	\$	\$000	Each	\$
MINE PRACTICE M88 (VOLCANO)								3794	6000				
WAM INDIVIDUAL TRAINER								1832	235		1534	235	
MODULAR CROWD CONTROL MUNITION					1114	3000		2377	10000		2358	10000	
TOTAL					1114			8003			3892		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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:							
	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	3	4							187
Gross Cost	368.9	15.0	16.4	11.9	17.7	0.0	0.0	0.0	0.0	0.0	0.0	429.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	368.9	15.0	16.4	11.9	17.7	0.0	0.0	0.0	0.0	0.0	0.0	429.8
Initial Spares												
Total Proc Cost	368.9	15.0	16.4	11.9	17.7	0.0	0.0	0.0	0.0	0.0	0.0	429.8
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 channel 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.

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 2000		
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	\$
HARDWARE													
LAP (M87A1) Lone Star AAP, Texarkana, TX					2611	3320	786	3292	4000	823			
MSEP Electronic Lens Alliant Techsystems, Edina, MN					6145	20769	296	8529	24216	352			
Coil & Strap Assembly S&K Inc, Ronan, MT					445	3931	113	605	4238	143			
Metal Parts Sets					550	3931	140	1032	4238	244			
AT S&A Assembly Action Mfg, Philadelphia, PA					741	21172	35	868	25532	34			
Miscellaneous					45			191					
SUBTOTAL					10537			14517					
PRODUCTION SUPPORT													
PRODUCTION ENGINEERING					922			2496					
QUALITY ASSURANCE					294			330					
LOT ACCEPTANCE TESTING					145			312					
SUBTOTAL					1361			3138					
TOTAL					11898			17655					

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 99 FY 00	Day & Zimmerman (Lone Star AAP), Texarkana TX	SS/CPIF	IOC	May-99	Feb-02	3320	786			
		SS/CPIF	IOC	Jun-00	Mar-02	4000	823			
MSEP Electronic Lens FY 99 FY 00	Alliant Tech, Edina, MN Alliant Tech, Edina, MN	Option	ARDEC	Apr-99	Apr-00	20769	296			
		Option	ARDEC	May-00	May-01	24216	352			
Coil & Strap Assembly FY 99 FY 00	S&K Electronics Inc, Ronan MT S&K Electronics Inc, Ronan MT	SS/FP	ARDEC	Jul-99	May-00	3931	113			
		Option	ARDEC	Aug-00	May-01	4238	143			
Metal Parts Sets FY 99 FY 00	JTM Inc, Amarillo, TX TBS	Option	ARDEC	Jul-99	Dec-99	3931	140			
		C/FP	ARDEC	Aug-00	May-01	4238	244			
AT S&A Assembly FY 99 FY 00	Action Mfg, Philadelphia PA Action Mfg, Philadelphia PA	C/FP	IOC	Sep-99	Mar-00	21172	35			
		Option	IOC	Aug-00	May-01	25532	34			
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	106	70	74	65	115	58	400	641	772	936	30753	33990
Gross Cost	14.6	10.0	14.7	9.5	15.2	7.3	29.2	44.6	56.3	56.1	1475.3	1732.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	14.6	10.0	14.7	9.5	15.2	7.3	29.2	44.6	56.3	56.1	1475.3	1732.9
Initial Spares												
Total Proc Cost	14.6	10.0	14.7	9.5	15.2	7.3	29.2	44.6	56.3	56.1	1475.3	1732.9
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. The product improved WAM adds on-off-on and redeployability capabilities.

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 FY01 procurements are required to build war reserve inventory in support of Department of Defense guidance.

WAM (Basic): Type Classification Date: June 1996-Low Rate Initial Production (LRIP)
 WAM (PIP-A1): Type Classification Date: December 2000 -Low Rate Initial Production (LRIP) (Proposed)
 WAM (PIP-A1): Type Classification Date: September 2002 - Standard (Proposed)
 WAM (PIP-A2): Type Classification Date: September 2003 - 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 2000		
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	\$
HARDWARE													
1. Load, Assemble and Pack - Wide Area Munition - Complete					8006	65	123169	14110	115	122696	6194	58	106793
2. Misc					52			53			50		
SUBTOTAL					8058			14163			6244		
Production Support Costs													
Production Engineering					736			442			405		
Quality Assurance					206			206			225		
OGA Support					104			111			125		
SUBTOTAL					1046			759			755		
Non-Recurring Support													
Producibility					375			200			220		
Engineering Changes					65			69			65		
SUBTOTAL					440			269			285		
TOTAL					9544		146831	15191		132096	7284		125586

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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
1. Load, Assemble and Pack - Wide Area Munition										
FY 99	Textron Defense Systems	Mod	ARDEC	May-99	Mar-01	65	123169			
FY 00	Textron Defense Systems	Mod	ARDEC	Feb-00	May-01	115	122696			
FY 01	Textron Defense Systems Wilmington, MA	SS/FP	ARDEC	Dec-00	Sep-01	58	106793			
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: BUNKER DEFEATING MUNITION (BDM) (E88400)

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	21.6	10.0	7.7	9.9	9.8	0.0	0.0	0.0	0.0	0.0	0.0	59.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	21.6	10.0	7.7	9.9	9.8	0.0	0.0	0.0	0.0	0.0	0.0	59.0
Initial Spares												
Total Proc Cost	21.6	10.0	7.7	9.9	9.8	0.0	0.0	0.0	0.0	0.0	0.0	59.0
Flyaway U/C												
Wpn Sys Proc U/C												

This budget lines includes Bunker Defeating 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: BUNKER DEFEATING MUNITION (BDM) (E88400)			Weapon System Type:			Date: February 2000		
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	
BUNKER DEFEATING MUNITION (TACTICAL)					9916	1076	7800.00	9808	1000	8190.00				
TOTAL					9916			9808						

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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: A 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	1076	1000							7488
Gross Cost	21.6	10.0	7.7	9.9	9.8	0.0	0.0	0.0	0.0	0.0	0.0	59.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	21.6	10.0	7.7	9.9	9.8	0.0	0.0	0.0	0.0	0.0	0.0	59.0
Initial Spares												
Total Proc Cost	21.6	10.0	7.7	9.9	9.8	0.0	0.0	0.0	0.0	0.0	0.0	59.0
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. The item is Code A, approved for service use.

JUSTIFICATION:
 Procurement supports contingency forces only.

Type Classified (TC) Generic August 1993, TC Limited Procurement September 1994, TC Standard December 1999.

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: BUNKER DEFEATING MUNITION (TACTICAL) (E88401)			Weapon System Type:			Date: February 2000		
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													
1. Complete Round	B				8393	1076	7800.00	8190	1000	8190.00			
2. Field Handling System					228	47	4854.00	219	43	5096.00			
SubTotal AMMO Hardware					8621			8409					
Production Support Costs													
Production Engineering					705			795					
Quality Assurance					107			121					
Acceptance Testing					448			448					
Interim Transportation					35			35					
SubTotal Prod. Support					1295			1399					
TOTAL					9916			9808					

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 FY99 FY00	TALLEY, MESA, AZ TALLEY, MESA, AZ	Option	TACOM-ARDEC	Sep-99	Dec-00	1076	7800.00			
		Option	TACOM-ARDEC	Sep-00	Dec-01	1000	8190.00			
2. FIELD HANDLING SYSTEM FY99 FY00	TALLEY, MESA, AZ TALLEY, MESA, AZ	Option	TACOM-ARDEC	Sep-99	Dec-00	47	4854.00			
		Option	TACOM-ARDEC	Sep-00	Dec-01	43	5096.00			
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	783.3	27.3	36.4	122.8	143.6	152.8	135.2	137.1	139.5	139.4	1254.5	3071.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	783.3	27.3	36.4	122.8	143.6	152.8	135.2	137.1	139.5	139.4	1254.5	3071.9
Initial Spares												
Total Proc Cost	783.3	27.3	36.4	122.8	143.6	152.8	135.2	137.1	139.5	139.4	1254.5	3071.9
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 2000		
Cost Elements		FY 98			FY 99			FY 00			FY 01		
ID	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$	\$000	x1000	\$
					38077	39	976	36048	37	974	31466	31	1015
					12357	16	772	36540	49	746	35970	50	719
					72356	160	452	71036	118	602	85331	144	593
TOTAL					122790			143624			152767		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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			39	37	31	31	32	32	31	279	762
Gross Cost	172.8	0.0	0.0	38.1	36.0	31.5	31.2	31.7	32.3	32.2	290.0	695.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	172.8	0.0	0.0	38.1	36.0	31.5	31.2	31.7	32.3	32.2	290.0	695.8
Initial Spares												
Total Proc Cost	172.8	0.0	0.0	38.1	36.0	31.5	31.2	31.7	32.3	32.2	290.0	695.8
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 4 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. FY01 procurement supports annual peacetime training and builds 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 2.75" Rocket Systems, 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 2000			
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														
Rocket					36788	39	943	34132	37	922	29088	31	938	
SubTotal AMMO Hardware					36788			34132			29088			
Production Support Costs														
Production Engineering					1289			1321			1241			
SubTotal Prod. Support					1289			1321			1241			
COST - Nonrecurring														
Product Improvement								595			1137			
SubTotal COST-Nonrecurring								595			1137			
TOTAL					38077		976	36048		974	31466		1015	

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition		Weapon System Type:			P-1 Line Item Nomenclature: ROCKET HYDRA 70 MP5M 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 x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY99 COMPLETE ROUND	GDOS - Burlington, VT	C/FP	IOC	Jun-99	Mar-01	39	943	Y		Oct 98
FY00 COMPLETE ROUND	GDOS - Burlington, VT	SS/FP	IOC	Apr-00	Feb-02	37	922	Y		Oct 98
FY01 COMPLETE ROUND	GDOS - Burlington, VT	SS/FP	IOC	Apr-01	Feb-03	31	938	Y		Oct 98

REMARKS:

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:
ROCKET HYDRA 70 MPSM PRAC M267 (E37334)

Date:
February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Thou	ACCEP. TO 1 OCT 2000	BAL DUE AS OF 1 OCT 2000	Fiscal Year 02												Fiscal Year 03												LATE R
							Calendar Year 02												Calendar Year 03												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
M267	1	99	A	39	28	11	4	4	3																						
	1	00	A	37		37					4	4	4	4	5	4	4	4	4												
	1	01	A	31		31														4	4	4	4	4	4	4	3				

MFR	NAME / LOCATION	PRODUCTION RATES			REACHED +	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	General Dynamics, VT	2			15	46			
						REORDER	6	7	22	29	
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					
						INITIAL					
						REORDER					

Exhibit P-40, Budget Item Justification Sheet

Date:
February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition	P-1 Item Nomenclature: ROCKET HYDRA 70 HE/PD M151/M423 (E37335)
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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	211			16	49	50	33	33	33	33	297	755
Gross Cost	61.3	0.0	0.0	12.4	36.5	36.0	25.3	25.8	26.2	26.2	235.7	485.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	61.3	0.0	0.0	12.4	36.5	36.0	25.3	25.8	26.2	26.2	235.7	485.4
Initial Spares												
Total Proc Cost	61.3	0.0	0.0	12.4	36.5	36.0	25.3	25.8	26.2	26.2	235.7	485.4
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 and is also used for training. The FY01 procurement builds a war reserve inventory in accordance with the Army's procurement goals and supports annual peacetime training requirements.

TYPE CLASSIFICATION DATE:

26 February 1982

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 2000			
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														
Rocket					11581	16	724	31193	49	637	31576	50	632	
SubTotal AMMO Hardware					11581			31193			31576			
Production Support Costs														
Production Engineering					476			1757			1687			
SubTotal Prod. Support					476			1757			1687			
COST - Nonrecurring														
Product Improvement					300			3590			2707			
SubTotal COST-Nonrecurring					300			3590			2707			
TOTAL					12357		772	36540		746	35970		719	

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY99 COMPLETE ROUND	GDOS - Burlington VT	C/FP	IOC	Jun-99	Mar-01	16	724	Y		Oct 98
FY00 COMPLETE ROUND	GDOS - Burlington VT	SS/FP	IOC	Apr-00	Feb-02	49	637	Y		Oct 98
FY01 COMPLETE ROUND	GDOS - Burlington VT	SS/FP	IOC	Apr-01	Feb-03	50	632	Y		Oct 98

REMARKS:

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: ROCKET HYDRA 70 HE/PD M151/M423 (E37335)										Date: February 2000														
COST ELEMENTS	MFR	FY	SERV	PROC QTY Thou	ACCEP. PRIOR TO 1 OCT 2000	BAL DUE AS OF 1 OCT 2000	Fiscal Year 02												Fiscal Year 03												L A T E R
							Calendar Year 02												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	
M151	1	99	A	16	16																										
	1	00	A	49		49					7	7	7	7	7	7															
	1	01	A	50		50														7	7	7	7	7	7	7	1				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
MFR	NAME / LOCATION	PRODUCTION RATES			REACH 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	General Dynamics, VT	2	15	46		1	INITIAL	6	7	22	29																				
							REORDER	6	7	22	29																				
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	160	118	144	132	134	134	130	1170	3341
Gross Cost	393.4	0.0	36.4	72.4	71.0	85.3	78.7	79.6	81.1	81.0	728.8	1707.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	393.4	0.0	36.4	72.4	71.0	85.3	78.7	79.6	81.1	81.0	728.8	1707.7
Initial Spares												
Total Proc Cost	393.4	0.0	36.4	72.4	71.0	85.3	78.7	79.6	81.1	81.0	728.8	1707.7
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 4 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 complexes. 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. FY01 procurement supports 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

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 2000		
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													
Rocket					61588	160	385	64289	118	545	77765	144	540
SubTotal AMMO Hardware					61588			64289			77765		
Production Support Costs													
Production Engineering					4879			4196			4609		
SubTotal Prod. Support					4879			4196			4609		
COST - Nonrecurring													
Product Improvement					5889			2551			2957		
SubTotal COST-Nonrecurring					5889			2551			2957		
TOTAL					72356		452	71036		602	85331		593

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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 x1000	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY99 COMPLETE ROUND	GDOS - Burlington, VT	C/FP	IOC	Dec-98	Oct-99	160	385	Y		Oct 98
FY00 COMPLETE ROUND	GDOS - Burlington, VT	SS/FP	IOC	Apr-00	Feb-02	118	545	Y		Oct 98
FY01 COMPLETE ROUND	GDOS - Burlington, VT	SS/FP	IOC	Apr-01	Feb-03	144	540	Y		Oct 98
REMARKS:										

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: ROCKET HYDRA 70 SIG PRAC M274 (E37337)													Date: February 2000																											
COST ELEMENTS	MFR	FY	SERV	PROC QTY Thou	ACCEP. TO 1 OCT 1999	BAL DUE AS OF 1 OCT 1999	Fiscal Year 00													Fiscal Year 01													LATE													
							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	OCT	NOV		DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
M274	1	99P	A	64	64																																									
	1	99	A	160		160	13	10	5	15	15	15	15	15	15	15	15	15	15	17	10																									
	1	00	A	118		118																																								118
	1	01	A	144		144																																							144	
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	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	TOTAL	REMARKS																																
		MIN.	1-8-5	MAX.				Prior 1 Oct.	After 1 Oct.	After 1 Oct.	After 1 Oct.																																			
1	General Dynamics, VT	2	15	46		1	INITIAL		6	7	22	29																																		
							REORDER		6	7	22	29																																		
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FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: ROCKET HYDRA 70 SIG PRAC M274 (E37337)						Date: February 2000																							
COST ELEMENTS	MFR	FY	SERV	PROC QTY Thou	ACCEP. PRIOR TO 1 OCT 2000	BAL DUE AS OF 1 OCT 2000	Fiscal Year 02												Fiscal Year 03												L A T E R				
							Calendar Year 02												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					
M274	1	99P	A	64	64																														
	1	99	A	160	160																														
	1	00	A	118		118																													
	1	01	A	144		144																													

MFR							OCT												NOV												DEC												JAN												FEB												MAR												APR												MAY												JUN												JUL												AUG												SEP											
NAME / LOCATION							PRODUCTION RATES			REACH	MFR	ADMIN LEAD TIME						MFR	TOTAL	REMARKS																																																																																																																																		
MIN.							1-8-5			MAX.	D +	Number	Prior 1 Oct.						After 1 Oct.						After 1 Oct.	After 1 Oct.																																																																																																																												
1 General Dynamics, VT							2			15			46				1	INITIAL	6	7	22	29																																																																																																																																
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FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE							P-1 Item Nomenclature: ROCKET HYDRA 70 SIG PRAC M274 (E37337)													Date: February 2000											
COST ELEMENTS	MFR	FY	SERV	PROC QTY Thou	ACCEP. PRIOR TO 1 OCT 2001	BAL DUE AS OF 1 OCT 2001	Fiscal Year 04												Fiscal Year 05												L A T E R
							Calendar Year 04												Calendar Year 05												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
M274	1	99P	A	64	64																										
	1	99	A	160	160																										
	1	00	A	118	118																										
	1	01	A	144	120	24	15	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	NAME / LOCATION	PRODUCTION RATES			REACH 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	General Dynamics, VT	2	15	46		1	INITIAL	6	7	22	29																				
							REORDER	6	7	22	29																				
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	16.6	10.9	11.6	11.2	16.6	17.9	18.9	34.2	24.5	0.0	473.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	311.0	16.6	10.9	11.6	11.2	16.6	17.9	18.9	34.2	24.5	0.0	473.4
Initial Spares												
Total Proc Cost	311.0	16.6	10.9	11.6	11.2	16.6	17.9	18.9	34.2	24.5	0.0	473.4
Flyaway U/C												
Wpn Sys Proc U/C												

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: September 1999	
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	
SELECTIVE LTWT ATTACK MUNITION (SO					945									
CHG DEMO BLK COMP C-4 1-1/4 LB M112					45									
CAP BLASTING NON-ELEC M7					26	4	7	491	97	5	36			
CORD DETONATING TYPE 1					339	3081		17			450	4211		
CHARGE DEMO SHAPED CLIPPED								1588	177	9	1535	184	8	
IGNITER ELECTRIC MATCH M79											121	34	4	
ANTI-PERS OBSTACLE BREACHING								5602	509	11	6540	702	9	
FUSE BLASTING TIME M700					189	1256		447	3193		320	1875		
CUTTER CTG ACTUATED 2 SEC					1117	10	112							
CAP BLASTING NON-ELEC, W/30 FT					196						728			
CAP BLASTING NON-ELEC, W/500 FT					306	16	19	97	5	19	744	39	19	
CAP BLASTING NON-ELEC, W/1000					1940	70	28	136	3	45	689	23	30	
CAP BLASTING NON-ELEC, DELAY,								789	101	8	993	131	8	
IGNITER, TIME FUZE AND SHOCK								512	159	3	634	198	3	
CAP, BLASTING INERT NON-ELEC					393	30	13							
CAP, BLASTING INERT NON-ELECT					20									
CAP, BLASTING INERT NON-ELECT W/70FT SHOCK TU					61	16	4							
CAP BLASTING NON-ELECTRIC 10 FT SHD					399	72	6	273	64	4	278	67	4	
CAP BLASTING NON ELECTRIC 20 MIN DE					1626	90	18	1205	91	13	1547	120	13	
BOOSTER, DEMO CHARGE XM151					540	107	5							
BOOSTER DEMO CHARGE XM152					1599	218	7							
FIGHTING POSITION EXCAVATOR					1900	952	2				1988			
TOTAL					11641			11157			16603			

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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					509	702	584	584				2379
Gross Cost	0.0	0.0	0.0	0.0	5.6	6.5	5.0	5.0	0.0	0.0	0.0	22.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	5.6	6.5	5.0	5.0	0.0	0.0	0.0	22.1
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	5.6	6.5	5.0	5.0	0.0	0.0	0.0	22.1
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. It is employed in combat operations to breach a lane through wire and anti-personnel mine obstacles.

JUSTIFICATION:
 The APOBS will replace the Bangalore Torpedo for breaching complex wire and anti-personnel landmine obstacles.

Type Classification Date: (Proposed) January 2000

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 2000		
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	\$
HARDWARE													
1. APOBS Complete System								2635	279	9444	4901	652	7517
2. APOBS Training Aid								2188	230	9513	421	50	8420
3. Initial Spares											321		
SUBTOTAL								4823			5643		
PRODUCTION SUPPORT													
PRODUCTION ENGINEERING								561			641		
QUALITY ASSURANCE								81			86		
LOT ACCEPTANCE TESTING								30			57		
TRAINING & MAINTENANCE								107			113		
SUBTOTAL								779			897		
TOTAL								5602	509	11006	6540	702	9316

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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	Ensign-Bickford, Simsbury, CT	Option	Quantico, VA	Feb-00	Sep-01	279	9444	Yes		
FY 01	Ensign-Bickford, Simsbury, CT	Option	Quantico, VA	Dec-00	Jan-02	652	7517	Yes		
2. APOBS Training Aid										
FY 00	Ensign-Bickford, Simsbury, CT	Option	Quantico, VA	Feb-00	Jul-01	230	9513	Yes		
FY 01	Ensign-Bickford, Simsbury, CT	Option	Quantico, VA	Dec-00	Jan-02	50	8420	Yes		
3. Initial Spares										
	Ensign-Bickford, Simsbury	Option	Quantico, VA	Dec-00	Dec-01	1	321	Yes		
REMARKS: Initial spares quantity will be one lot. APOBS is an option on an existing Marine Corps contract.										

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

ANTI-PERS OBSTACLE BREACHING SYSTEM (E72800)

Date:

February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT 1999	BAL DUE AS OF 1 OCT 1999	Fiscal Year 00												Fiscal Year 1												L A T E R
							Calendar Year 00												Calendar Year 1												
							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	J	A	S	
1. APOBS Complete System																															
	1	FY 00	A	279	0	279																					9				
	1	FY 01	A	652	0	652																					270				
																											652				
2. APOBS Training Aid																															
	1	FY 00	A	230	0	230																				10					
	1	FY 01	A	50	0	50																				25					
																											27				
																											168				
																											50				
3. Initial Spares																															
	1	FY 01	A	1	0	1																					1				
1. APOBS Tactical System																															
	1	FY 00	M	294	0	294																				50					
	1	FY 01	M	1089	0	1089																				70					
																											80				
																											94				
2. APOBS Training Aid																															
	2	FY 00	M	50	0	50																				10					
	2	FY 01	M	100	0	100																				15					
																											25				
																											100				

MFR	NAME / LOCATION	PRODUCTION RATES			REACH 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	Ensign-Bickford, Simsbury, CT	600	1500	3750		1	INITIAL	3	5	19	24	
							REORDER	3	3	13	16	
2	Ensign-Bickford, Simsbury, CT	100	150	350		2	INITIAL	3	5	17	22	
							REORDER	3	3	13	16	
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					
							INITIAL					
							REORDER					

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

ANTI-PERS OBSTACLE BREACHING SYSTEM (E72800)

Date:

February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT 2001	BAL DUE AS OF 1 OCT 2001	Fiscal Year 02												Fiscal Year 03												L A T E R
							Calendar Year 02												Calendar Year 03												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. APOBS Complete System																															
	1	FY 00	A	279	9	270	31	120	119																						
	1	FY 01	A	652	0	652				54	54	54	54	54	54	54	54	54	54	56	56										
2. APOBS Training Aid																															
	1	FY 00	A	230	62	168	52	58	58																						
	1	FY 01	A	50	0	50				3	3	3	4	4	4	4	5	5	5	5	5										
3. Initial Spares																															
	1	FY 01	A	1	0	1			1																						
1. APOBS Tactical System																															
	1	FY 00	M	294	200	94	94																								
	1	FY 01	M	1089	0	1089				90	90	90	90	90	90	90	90	90	90	99											
2. APOBS Training Aid																															
	2	FY 00	M	50	50																										
	2	FY 01	M	100	0	100				8	8	8	8	8	8	8	8	8	9	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	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	Ensign-Bickford, Simsbury, CT	600	1500	3750		1	INITIAL	3	5	19	24																				
							REORDER	3	3	13	16																				
2	Ensign-Bickford, Simsbury, CT	100	150	350		2	INITIAL	3	5	17	22																				
							REORDER	3	3	13	16																				
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								
							INITIAL																								
							REORDER																								

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	4.2	12.1	20.7	13.3	20.3	21.8	17.4	20.3	19.3	0.0	717.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	568.0	4.2	12.1	20.7	13.3	20.3	21.8	17.4	20.3	19.3	0.0	717.4
Initial Spares												
Total Proc Cost	568.0	4.2	12.1	20.7	13.3	20.3	21.8	17.4	20.3	19.3	0.0	717.4
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 2000		
Cost Elements		FY 98			FY 99			FY 00			FY 01		
ID	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
					1931	788	2.45	5888	2530	2.33	4992	1923	2.60
					1892	40	32.89	79			1642	62	26.33
					4515	130	30.79	998	34	29.69	2755	103	26.70
					2961	73	33.93	86					
					8183	207	38.13	247			2371	104	22.79
											4184	162	25.78
								39					
								4198	27		1958	27	72.52
					1265	12		1760	19	92.63	2358	47	48.67
TOTAL					20747			13295			20260		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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			788	2530	1923	1936	1919	1919	1920		91302
Gross Cost	76.1	0.0	0.0	1.9	5.9	5.0	5.1	5.1	5.2	5.3	0.0	109.6
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	5.1	5.2	5.3	0.0	109.6
Initial Spares												
Total Proc Cost	76.1	0.0	0.0	1.9	5.9	5.0	5.1	5.1	5.2	5.3	0.0	109.6
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.

JUSTIFICATION:

This is a training unique item; not used in combat. FY01 procurement supports annual peacetime training and builds 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 2000		
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					1725	788	2.19	5621	2530	2.22	4570	1923	2.38
SubTotal AMMO Hardware					1725			5621			4570		
Production Support Costs Production Engineering Industrial Stock Support					171 35			185 82			356 66		
SubTotal Prod. Support					206			267			422		
TOTAL					1931		2.45	5888		2.33	4992		2.60

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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	Martin Electronics Perry, FL	C/FP	IOC	Aug-99	May-00	788	2.19			Jun 99
FY 00	TBS	C/FP	IOC	Apr-00	May-01	2530	2.22	Y		Oct 99
FY 01	TBS	C/FP	IOC	Apr-01	May-02	1923	2.38	Y		Oct 00

REMARKS: TBS - To Be Selected

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE						P-1 Item Nomenclature: FUZE GRENADE HAND PRAC M228 (E31900)													Date: February 2000												
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												
							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	99	A	0.79		0.79									0.39	0.40															
	2	00	A	2.53		2.53														0.40	0.40	0.40	0.40	0.53	0.40						
	2	01	A	1.92		1.92																			1.92						
	1	99	MC	0.40		0.40	0.20	0.20																							
	2	99	MC	0.77		0.77											0.40	0.37													
	2	01	MC	0.54		0.54																			0.54						
		99	ALL	0.40		0.40	0.20	0.20																							
		99	ALL	1.56		1.56									0.39	0.40									0.77						
		00	ALL	2.53		2.53													0.40	0.37					1.76						
		01	ALL	2.46		2.46															0.40	0.40	0.40	0.40	0.53	0.33					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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		104	213	215	207	206		1847
Gross Cost	11.6	4.2	6.7	8.2	0.2	2.4	5.0	5.1	5.0	5.1	0.0	53.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	11.6	4.2	6.7	8.2	0.2	2.4	5.0	5.1	5.0	5.1	0.0	53.5
Initial Spares												
Total Proc Cost	11.6	4.2	6.7	8.2	0.2	2.4	5.0	5.1	5.0	5.1	0.0	53.5
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 ignition, 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.

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 builds 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 2000		
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					7414	207	35.73				2304	104	22.15
SubTotal AMMO Hardware					7414						2304		
Production Support Costs Production Engineering					621			247			34		
Industrial Stock Support					148						33		
SubTotal Prod. Support					769			247			67		
TOTAL					8183		38.13	247			2371		22.79

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2000

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
Complete Round FY 99	Pine Bluff Arsenal (PBA) Pine Bluff, AR	SS/FP	IOC	Apr-99	Apr-00	207	35.73			Feb 99
FY 01	Pine Bluff Arsenal (PBA) Pine Bluff, AR	SS/FP	IOC	Apr-01	Apr-02	104	22.15	Yes		Oct 00

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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	7.4	5.1	9.7	13.1	11.6	12.4	14.5	13.0	0.0	413.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	325.3	1.3	7.4	5.1	9.7	13.1	11.6	12.4	14.5	13.0	0.0	413.4
Initial Spares												
Total Proc Cost	325.3	1.3	7.4	5.1	9.7	13.1	11.6	12.4	14.5	13.0	0.0	413.4
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 2000		
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
SMOKE POT PRACTICE M8								5850	13	450	7177	15	478
SIGNAL KIT PERSONNEL DISTRESS											1307	26	50
SIGNAL SMOKE & ILLUM MK124 MOD					735	14	53	27					
SIGNAL ILLUM GND WS CLUSTER					960	23	42	78			1120	31	36
SIGNAL ILLUM GND WS PARA					2098	59	36	2646	74	36	2385	54	45
SIGNAL ILLUM GND GS CLUSTER								1057	30	36	1078	30	36
FLARE SURFACE TRIP M49 SERIES					1300	50	26	47					
TOTAL					5093			9705			13067		

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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		13	15	17	17	17	17		130
Gross Cost	9.1	0.0	5.1	0.0	5.8	7.2	6.9	6.9	7.1	7.2	0.0	55.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	9.1	0.0	5.1	0.0	5.8	7.2	6.9	6.9	7.1	7.2	0.0	55.2
Initial Spares												
Total Proc Cost	9.1	0.0	5.1	0.0	5.8	7.2	6.9	6.9	7.1	7.2	0.0	55.3
Flyaway U/C												
Wpn Sys Proc U/C												

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.

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.

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 2000		
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
Hardware													
Load Assemble, and Pack							1755	12536	140	2150	15143	142	
Chemicals							1865	13058	140	2285	15774	142	
Metal Parts							1731	13058	130	2124	15774	132	
SubTotal Hardware							5351		410	6559		416	
Procurement Support													
Production Engineering							160		12	191		12	
Quality Assurance							13		1	16		1	
Proof & Acceptance Testing							65		5	79		5	
Interim Transportation							26		2	32		2	
Industrial Stock Support							235		18	300		19	
SubTotal Procurement Support							499		38	618		39	
TOTAL							5850		448	7177		455	

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

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										
FY 00	Pine Bluff Arsenal	SS/FP	CBDCOM	Jan-00	May-00	12536	140			
FY 01	Pine Bluff Arsenal	SS/FP	CBDCOM	Jan-00	May-02	15143	142			
Chemicals										
FY 00	Unkown	C/FP	Pine Bluff Arsenal	Jul-00	Oct-00	13058	140			
FY 01	Unkown	C/FP	Pine Bluff Arsenal	Jul-00	Oct-01	15774	142			
Metal Parts										
FY 00	Unkown	C/FP	Pine Bluff Arsenal	Jul-00	Oct-00	13058	130			
FY 01	Unkown	C/FP	Pine Bluff Arsenal	Jul-01	Oct-01	15774	132			

REMARKS:

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature:

SMOKE POT PRACTICE M8 (E62900)

Date:

February 2000

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 & Pack	1	FY99P	A	11	11																										
	1	FY00	A	13	0	13								6	7																
	1	FY01	A	15	0	15																				4	5	6			

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2000

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	3.7	6.8	6.8	6.8	6.9	7.0	7.2	0.0	810.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	761.1	1.2	3.1	3.7	6.8	6.8	6.8	6.9	7.0	7.2	0.0	810.6
Initial Spares												
Total Proc Cost	761.1	1.2	3.1	3.7	6.8	6.8	6.8	6.9	7.0	7.2	0.0	810.6
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 2000		
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
COMPONENTS FOR RENOVATION OF FIELD STOCK					2713			5848			5788		
WEAPON COMP IN SPT OF PROOF/ACT TESING					999			973			962		
TOTAL					3712			6821			6750		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	2.7	5.8	5.8	5.9	5.9	6.0	6.1	0.0	541.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	500.0	0.1	3.0	2.7	5.8	5.8	5.9	5.9	6.0	6.1	0.0	541.3
Initial Spares												
Total Proc Cost	500.0	0.1	3.0	2.7	5.8	5.8	5.9	5.9	6.0	6.1	0.0	541.3
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 2000

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	763.4	2.6	6.0	6.4	7.6	10.1	8.7	8.7	6.0	6.1	0.0	825.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	763.4	2.6	6.0	6.4	7.6	10.1	8.7	8.7	6.0	6.1	0.0	825.8
Initial Spares												
Total Proc Cost	763.4	2.6	6.0	6.4	7.6	10.1	8.7	8.7	6.0	6.1	0.0	825.8
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 2000		
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
CTG 12 GA CROWD DISPERSAL XM1013								951	155	6.14			
CTG 12 GA NON-LETHAL XM1012											944	147	6.42
CTG 10 GAUGE BLANK					34	18	1.89	27	16	1.69	95	84	1.13
CTG CAL .22 LR MATCH F/PISTOL					174	1335	0.13						
CTG CAL .30 BLANK M1909					1000	1999	0.50	1088	3083	0.35	566	1777	0.32
RIOT CONTROL AGENT CS CAPSULE								15	19	0.81	20	23	0.85
USAMTU FT BENNING					434			350			344		
NEW EQUIPMENT TRAINING					179			91			89		
155MM M804A1					205								
FUZE ARTY MOUT MK399 MOD 1					200			196			196		
AMMUNITION PROGRAM SUPPORT								4881			4413		
CTG, MORTAR, 81MM HE M821					1977								
RIFLE LAUNCHED ENTRY MUNITION					400	486	823.05				3478	2000	1750.00
LINE CHARGE INERT M68A2 F/MICLIC					1749	47	36755.77						
TOTAL					6352			7599			10145		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	10.6	9.5	8.8	8.5	8.7	8.8	0.0	154.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	77.1	5.2	7.3	10.3	10.6	9.5	8.8	8.5	8.7	8.8	0.0	154.8
Initial Spares												
Total Proc Cost	77.1	5.2	7.3	10.3	10.6	9.5	8.8	8.5	8.7	8.8	0.0	154.8
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 function 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 2000

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	5.2	5.3	5.1	5.2	5.3	5.4	5.5	0.0	760.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	713.7	5.3	4.5	5.2	5.3	5.1	5.2	5.3	5.4	5.5	0.0	760.5
Initial Spares												
Total Proc Cost	713.7	5.3	4.5	5.2	5.3	5.1	5.2	5.3	5.4	5.5	0.0	760.5
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 and war reserve support to allies (Korea and Thailand).

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition
 P-1 Item Nomenclature: CLOSEOUT LIABILITIES (EA8500)

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	0.0	0.0	0.0	125.2	0.0	5.8	25.3	0.0	0.0	0.0	0.0	156.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	125.2	0.0	5.8	25.3	0.0	0.0	0.0	0.0	156.3
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	125.2	0.0	5.8	25.3	0.0	0.0	0.0	0.0	156.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Funding will pay the increment of contract termination cost and operational losses to ensure the solvency of the Conventional Ammunition Working Capital Fund (CAWCF) as the fund closes out.

JUSTIFICATION: Funding is required to pay contract termination cost, i.e., unfunded pension liabilities, severance pay, and inventory and ammunition plants. Additionally, funds will be used to pay for losses in the CAWCF as it closes out.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	47.1	32.9	45.3	52.9	47.7	66.5	71.5	72.8	74.2	0.0	5196.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	4685.7	47.1	32.9	45.3	52.9	47.7	66.5	71.5	72.8	74.2	0.0	5196.6
Initial Spares												
Total Proc Cost	4685.7	47.1	32.9	45.3	52.9	47.7	66.5	71.5	72.8	74.2	0.0	5196.6
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 99</u>	<u>FY 00</u>	<u>FY 01</u>
Environmental	\$ 9.3	\$ 9.1	\$12.2
Production Support	<u>\$36.0</u>	<u>\$43.8</u>	<u>\$35.5</u>
T O T A L	\$45.3	\$52.9	\$47.7

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 2000

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 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
<u>PRODUCTION SUPPORT</u>					
HOLSTON ARMY AMMUNITION PLANT (AAP)	X-MAT Facility Initiatives	5XX1000	8419	18641	14069
IOWA AAP	Replace Bridge H20, Rehabilitate Road C	5992776	2372		
IOWA AAP	Production Support and Equipment Replacement (PSR)	5XX5333	2111	2422	1394
IOWA AAP	Replace Grade/Beams 3A, Yard L Docks	5002776		2886	
IOWA AAP	Install Steam Line to Line 3A from Main Heating Plant	5012998			3964
IOWA AAP	Replace Water Main, Line 2	5993323	774		
IOWA AAP	Renovate Buildings 100-101, Phase 2	5003333		1317	
IOWA AAP	Install 5 Dry-Type Sprinklers, Yard L	5003334		759	
IOWA AAP	Refurbish Mathes Lake Dam	5003349		214	
IOWA AAP	Expand Melt Capacity, Line 3A	5013395			3000
IOWA AAP	120MM Tank Line of the Future	5003403		5319	
LAKE CITY AAP	Commercial Pack	5993386	957		
LONE STAR AAP	Production Support and Equipment Replacement (PSR)	5XX5316	1175	1653	1239
LONE STAR AAP	Consolidate Primer Production Area into Area P/Q	5003358		1006	
MILAN AAP	Production Support and Equipment Replacement (PSR)	5XX5317	1789	1811	1504
RADFORD AAP	Production Support and Equipment Replacement (PSR)	5XX5326	3515	1747	2647
RADFORD AAP	Overhead Electrical Service	59X2783	522		
RADFORD AAP	Replace Raw Water Supply Line, Buildings 408-409	5993322	2084		
RADFORD AAP	Replace Natural Gas Lines	5993314	2447		
RADFORD AAP	Replace Acid Tank AL-1, Acid Area	5013391			1187
RADFORD AAP	Improvements for Multi-Base Production	5013402			3700

Exhibit P-40C Budget Item Justification Sheet

Date
February 2000

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 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
<u>PRODUCTION SUPPORT (continued)</u>					
RIVERBANK AAP	Large Caliber Deep-Drawn Cartridge Cases	59X3311	3000	1871	
VARIOUS AAPs	Engineering Design	5XX3046	4986	2862	1598
VARIOUS AAPs	Completion of Y2K, MRPII Implementation	5993387	592		
PROVING GROUND MODERNIZATION	Production Support and Equipment Replacement (PSR)	5XX5060	1200	1200	1200
	SUBTOTAL - PRODUCTION		35,943	43,818	35,502
 <u>ENVIRONMENTAL</u>					
HOLSTON AAP	Acid A Industrial Wastewater Equalization/Spill Ponds to Concrete Tanks	5992994	2227		
IOWA AAP	Hazardous Waste/Material Process Facility	5992952	1879		
IOWA AAP	Sewer Rehabilitation Continuation	5003371		1395	
IOWA AAP	Pink Water Treatment, 3A-05-2	5013344			1385

Exhibit P-40C Budget Item Justification Sheet

Date
February 2000

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 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
<u>ENVIRONMENTAL (continued)</u>					
LONE STAR AAP	Production Support and Equipment Replacement (PSR)	5XX5316		246	
LONE STAR AAP	Sanitary Sewer Collection System	5002955		1852	
MILAN AAP	Production Support and Equipment Replacement (PSR)	5XX5317	1116		
MILAN AAP	Upgrade Sewage Treatment Plant/Rehabilitate Main Sewage Treatment Collection Lines	5XX2943		4099	1499
MILAN AAP	Rehabilitate/Replace Sewage Collection System	5013384			1843
MILAN AAP	Boiler Conversion at K-Line	5013392			1567
RADFORD AAP	Dike Repairs	5012924			2489
RADFORD AAP	Acid Sewer System Upgrade	5012925			3463
RADFORD AAP	Correct Defects in Equalization Tanks	5993313	4111		
SCRANTON AAP	Upgrade Plant Drainage System	5002986		1500	
	SUBTOTAL - ENVIRONMENTAL		9,333	9,092	12,246
	TOTAL INDUSTRIAL FACILITIES		45,276	52,910	47,748

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000					
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 5011000		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		n/a	n/a	n/a	1. NAME Holston Army Ammunition Plant						
					2. LOCATION Kingsport, Tennessee						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)		n/a	n/a	n/a	3. TYPE (GOGO, GOCO, COCO) GOCO						
1.					I. RELATED PROJECTS						
2.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
3.					1000	XMAT Facility Initiative	FY 00	18.641	No	N/A	N/A
					1000	XMAT Facility Initiative	FY 02	12.945	No	N/A	N/A
SUBTOTAL EQUIPMENT COST		n/a	n/a	n/a							
C. EQUIPMENT INSTALLATION COST											
D. CONTRACTOR SUPPORT COST											
E. CORPS OF ENGINEERS SUPPORT COST											
F. OTHER IN-HOUSE SUPPORT COST											
TOTAL FACILITY PROJECT COST			8419	18641	14069	J. PRINCIPAL MILESTONES					
G. OTHER COSTS	1. FACILITY PROVE-OUT COST								MONTH & YEAR		
									1. CONCEPT DESIGN COMPLETE Not Applicable		
2. MILITARY CONSTRUCTION APPN.									2. FINAL DESIGN COMPLETE Not Applicable		
									3. INITIAL/FINAL PROJECT AWARD Not Applicable		
									4. CONSTRUCTION COMPLETE Not Applicable		
									5. EQUIPMENT INSTALLATION COMPLETE Not Applicable		
									6. PROVE OUT BEGINS Not Applicable		
									7. PROVE OUT COMPLETE Not Applicable		
NARRATIVE EXPLANATION											
This project provides funding for the operational costs at Holston AAP. Operational costs include all property management costs such as maintenance, facilitization, environmental, safety, security, traffic management, readiness/reactivation/replenishment planning, and support of the on-site Government staff.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000	
2. PROJECT TITLE/TYPE Dike Replacement, Phase I			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		
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.				2300	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						
						Project Number	Title
						FY & Appn	Value (\$ mil)
						Facing	Start Date
						Compl Date	
						2924	Dike Replacement, Phase 2
						FY 03	4.325
						No	Mar-03
						Sep-04	
				51	J. PRINCIPAL MILESTONES		
				138	MONTH & YEAR		
				2489	1. CONCEPT DESIGN COMPLETE <u>Not Applicable</u>		
					2. FINAL DESIGN COMPLETE <u>Nov-99</u>		
					3. INITIAL/FINAL PROJECT AWARD <u>Mar-01/Mar-01</u>		
					4. CONSTRUCTION COMPLETE <u>Sep-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							
<p>This project will provide secondary containment at storage tanks in active facilities to prevent releases of fuel, used oil and other petroleum products, corrosives, solvents, and other hazardous materials to the environment. This includes provisions of dikes at storage tanks where none exist and rehabilitation of dike structures.</p>							

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000
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				3168	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	
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				105		
D. CONTRACTOR SUPPORT COST				190		
E. CORPS OF ENGINEERS SUPPORT COST						
F. OTHER IN-HOUSE SUPPORT COST						
TOTAL FACILITY PROJECT COST				3463	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 Nov-99	
					3. INITIAL/FINAL PROJECT AWARD Feb-01/Feb-01	
					4. CONSTRUCTION COMPLETE Dec-02	
					5. EQUIPMENT INSTALLATION COMPLETE Not Applicable	
					6. PROVE OUT BEGINS Not Applicable	
					7. PROVE OUT COMPLETE Not Applicable	
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 2000																					
2. PROJECT TITLE/TYPE Rehabilitate Main Sewage Treatment Collection Lines			3. END ITEM SUPPORTED MODEL Medium Caliber, Mortar, Fuze, and Mines																								
4. PROJECT NUMBER 5012943		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			3788	1504	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)					3. TYPE (GOGO, GOCO, COCO) GOCO																						
	1.				I. RELATED PROJECTS																						
2.					<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;">2943A</td> <td>ENV - Upgrade Sewage Treatment Plant</td> <td style="text-align: center;">FY00</td> <td style="text-align: center;">4.099</td> <td style="text-align: center;">No</td> <td style="text-align: center;">Mar-00</td> <td style="text-align: center;">Nov-01</td> </tr> <tr> <td style="text-align: center;">3384</td> <td>ENV - Rehabilitate/Replace Sewage Collection System</td> <td style="text-align: center;">FY01</td> <td style="text-align: center;">1.843</td> <td style="text-align: center;">No</td> <td style="text-align: center;">Jan-01</td> <td style="text-align: center;">Aug-04</td> </tr> </tbody> </table>		Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date	2943A	ENV - Upgrade Sewage Treatment Plant	FY00	4.099	No	Mar-00	Nov-01	3384	ENV - Rehabilitate/Replace Sewage Collection System	FY01	1.843	No	Jan-01	Aug-04
Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date																					
2943A	ENV - Upgrade Sewage Treatment Plant	FY00	4.099	No	Mar-00	Nov-01																					
3384	ENV - Rehabilitate/Replace Sewage Collection System	FY01	1.843	No	Jan-01	Aug-04																					
3.																											
SUBTOTAL EQUIPMENT COST																											
C. EQUIPMENT INSTALLATION COST			84	75	J. PRINCIPAL MILESTONES																						
D. CONTRACTOR SUPPORT COST			227		MONTH & YEAR																						
E. CORPS OF ENGINEERS SUPPORT COST					1. CONCEPT DESIGN COMPLETE <u>Apr-96</u>																						
F. OTHER IN-HOUSE SUPPORT COST					2. FINAL DESIGN COMPLETE <u>Feb-99</u>																						
TOTAL FACILITY PROJECT COST			4099	1579	3. INITIAL/FINAL PROJECT AWARD <u>Jan-01/Jan-01</u>																						
G. OTHER COSTS					4. CONSTRUCTION COMPLETE <u>Dec-01</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>Project involves rehabilitation or replacement of the existing sewage collection system. Rehabilitation of existing sewage system consists of rehabilitation or replacement of manhole and sewer collection lines to reduce inflow and infiltration. The existing sewage collection lines were installed in the early 1940s. Because of age, it has frequent breaks, causing heavy maintenance. During heavy rains, the plant has experienced infiltration in excess of 5 times the normal flow. This sudden surge in flow causes the treatment facility to be overstressed and has resulted in violations of Milan Army Ammunition Plant's discharge permit.</p>																											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000					
2. PROJECT TITLE/TYPE Install Steam Line to Line 3A				3. END ITEM SUPPORTED MODEL 155mm/M795, 81mm Mortars							
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						
				3662	1. NAME Iowa Army Ammunition Plant						
A. CONSTRUCTION COST					2. LOCATION Middletown, Iowa						
					3. TYPE (GOGO, GOCO, COCO) GOCO						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					I. RELATED PROJECTS						
1.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
2.					Not Applicable						
3.											
SUBTOTAL EQUIPMENT COST											
C. EQUIPMENT INSTALLATION COST					83						
D. CONTRACTOR SUPPORT COST					219						
E. CORPS OF ENGINEERS SUPPORT COST											
F. OTHER IN-HOUSE SUPPORT COST											
TOTAL FACILITY PROJECT COST					3964						
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					Mar-00
						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											
This project will install a steam line from the Main Heating Plant to Line 3A, thereby eliminating the need for the 3A-02 Heating Plant. This project will eliminate considerable Oxide of Sulfur (SOX) and Oxide of Nitrogen (NOX) emissions from the facility. This project also allows for the removal of a fuel oil tank, which has a potential for spills and/or leaks.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000																	
2. PROJECT TITLE/TYPE Preparation of Equipment and Construction Design				3. END ITEM SUPPORTED MODEL Multiple																			
4. PROJECT NUMBER 5XX3046		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 Multiple _____	2. LOCATION Multiple _____	3. TYPE (GOGO, GOCO, COCO) Multiple _____																
A. CONSTRUCTION COST B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)					I. RELATED PROJECTS <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">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></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																							
C. EQUIPMENT INSTALLATION COST																							
D. CONTRACTOR SUPPORT COST																							
E. CORPS OF ENGINEERS SUPPORT COST					3227	1657	1341																
F. OTHER IN-HOUSE SUPPORT COST					1759	1095	257																
TOTAL FACILITY PROJECT COST					4986	2752	1598																
G. OTHER COSTS																							
1. FACILITY PROVE-OUT COST																							
2. MILITARY CONSTRUCTION APPN.																							
					J. PRINCIPAL MILESTONES <table style="width:100%; margin-top: 5px;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 20%;">MONTH & YEAR</th> </tr> </thead> <tbody> <tr> <td>1. CONCEPT DESIGN COMPLETE</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> <tr> <td>2. FINAL DESIGN COMPLETE</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> <tr> <td>3. INITIAL/FINAL PROJECT AWARD</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> <tr> <td>4. CONSTRUCTION COMPLETE</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> <tr> <td>5. EQUIPMENT INSTALLATION COMPLETE</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> <tr> <td>6. PROVE OUT BEGINS</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> <tr> <td>7. PROVE OUT COMPLETE</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> </tbody> </table>				MONTH & YEAR	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>
	MONTH & YEAR																						
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 will provide the annual funding increment for the Industrial Facilities (IF) Program. These funds are used for the initiation and/or continuation of construction design criteria, equipment and construction concept and final design, process design specifications, procurement packages, design reviews, design related analyses, preparation and incorporation of engineering change proposals (ECPs), preparation of environmental evaluation to determine if a categorical exclusion to the requirement for an environmental assessment (EA) can be made, and other design related efforts allowable under existing regulations deemed necessary to assure efficient and timely execution of facility projects.</p>																							

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000					
2. PROJECT TITLE/TYPE Pink Water Treatment, 3A-05-2			3. END ITEM SUPPORTED MODEL 155mm Artillery, 81mm Mortar								
4. PROJECT NUMBER 5013344		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 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)				222	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				222							
C. EQUIPMENT INSTALLATION COST				1097							
D. CONTRACTOR SUPPORT COST				66							
E. CORPS OF ENGINEERS SUPPORT COST											
F. OTHER IN-HOUSE SUPPORT COST											
TOTAL FACILITY PROJECT COST				1385							
G. OTHER COSTS					J. PRINCIPAL MILESTONES						
1. FACILITY PROVE-OUT COST										MONTH & YEAR	
2. MILITARY CONSTRUCTION APPN.										1. CONCEPT DESIGN COMPLETE Not Applicable	
										2. FINAL DESIGN COMPLETE Apr-00	
										3. INITIAL/FINAL PROJECT AWARD Dec-00/Dec-00	
										4. CONSTRUCTION COMPLETE Not Applicable	
										5. EQUIPMENT INSTALLATION COMPLETE Mar-02	
										6. PROVE OUT BEGINS Not Applicable	
										7. PROVE OUT COMPLETE Not Applicable	
NARRATIVE EXPLANATION											
The project turns the Pink Water Treatment Unit at Building 3A-05-2 into a closed-loop, zero discharge system. Pink Water treatment units currently discharge explosives in excess of lifetime advisories set forth in the Safe Drinking Water Act. Discharge is believed to be the cause of off-site contamination of private drinking water wells located south of the plant. This is required for wastewater treatment and to keep Iowa in compliance in order to meet replenishment needs.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000					
2. PROJECT TITLE/TYPE Rehabilitate/Replacement of Sewage Collection System			3. END ITEM SUPPORTED MODEL Medium Caliber, Mortar, Fuze, and Mines								
4. PROJECT NUMBER 5013384		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				1755	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)					3. TYPE (GOGO, GOCO, COCO) GOCO						
					I. RELATED PROJECTS						
1.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
2.					2943A	ENV - Upgrade of Sewage Treatment Plant	FY00	4.099	No	Mar-00	Nov-01
3.					2943B	ENV - Rehabilitate Main Sewer Treatment Collection Lining	FY01	1.579	No	Jan-01	Dec-01
SUBTOTAL EQUIPMENT COST											
C. EQUIPMENT INSTALLATION COST											
D. CONTRACTOR SUPPORT COST				88							
E. CORPS OF ENGINEERS SUPPORT COST											
F. OTHER IN-HOUSE SUPPORT COST											
TOTAL FACILITY PROJECT COST				1843							
G. OTHER COSTS					J. PRINCIPAL MILESTONES			MONTH & YEAR			
1. FACILITY PROVE-OUT COST					1. CONCEPT DESIGN COMPLETE			Not Applicable			
2. MILITARY CONSTRUCTION APPN.					2. FINAL DESIGN COMPLETE			Feb-99			
					3. INITIAL/FINAL PROJECT AWARD			Jan-01/Jan-01			
					4. CONSTRUCTION COMPLETE			Dec-01			
					5. EQUIPMENT INSTALLATION COMPLETE			Not Applicable			
					6. PROVE OUT BEGINS			Not Applicable			
					7. PROVE OUT COMPLETE			Not Applicable			
NARRATIVE EXPLANATION											
This project will rehabilitate existing sewage collection lines and manholes within active production areas. The existing lines are experiencing infiltration at a rate approaching five times the normal flow. The excessive flow requires treatment and thus places additional burden on the sewage treatment facility. The additional burden upsets the treatment process which results in National Pollutant Discharge Elimination System (NPDES) violations.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000																
2. PROJECT TITLE/TYPE Replace Acid Tank AL-1, Acid Area			3. END ITEM SUPPORTED MODEL Propellants and Explosives (Nitroglycerin and Nitrocellulose)																			
4. PROJECT NUMBER 5013391		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.				1074	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																					
				48	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>Not Applicable</u></td> </tr> <tr> <td>2. FINAL DESIGN COMPLETE</td> <td style="text-align: right;"><u>Not Applicable</u></td> </tr> <tr> <td>3. INITIAL/FINAL PROJECT AWARD</td> <td style="text-align: right;"><u>Jan-01/Jul-01</u></td> </tr> <tr> <td>4. CONSTRUCTION COMPLETE</td> <td style="text-align: right;"><u>Oct-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>Not Applicable</u>	2. FINAL DESIGN COMPLETE	<u>Not Applicable</u>	3. INITIAL/FINAL PROJECT AWARD	<u>Jan-01/Jul-01</u>	4. CONSTRUCTION COMPLETE	<u>Oct-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>Not Applicable</u>																					
2. FINAL DESIGN COMPLETE	<u>Not Applicable</u>																					
3. INITIAL/FINAL PROJECT AWARD	<u>Jan-01/Jul-01</u>																					
4. CONSTRUCTION COMPLETE	<u>Oct-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>																					
				65																		
				1187																		
NARRATIVE EXPLANATION This project will replace one aluminum acid storage tank with two aluminum tanks. The associated piping and support structures will also be replaced. The existing tank is over 25 years old and is badly deteriorated, showing severe pitting. Metal thinckness measurements indicate the tank has lost 30-50 percent of its original thickness. The combined capacity of the two new tanks will be less than that of the existing tank (1.3 million gallons versus 1.8 million gallons).																						

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000																	
2. PROJECT TITLE/TYPE Boiler Conversion at K Line			3. END ITEM SUPPORTED MODEL Medium Caliber, Mortar, Mines, and Fuze																				
4. PROJECT NUMBER 5013392		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.				788	1. NAME <u>Milan Army Ammunition Plant</u> 2. LOCATION <u>Milan, Tennessee</u> 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>																		
				756	I. RELATED PROJECTS																		
					756	<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							
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		Not Applicable																					
					23																		
					1567	J. PRINCIPAL MILESTONES																	
						<table style="width:100%;"> <thead> <tr> <th></th> <th style="text-align: center;">MONTH & YEAR</th> </tr> </thead> <tbody> <tr> <td>1. CONCEPT DESIGN COMPLETE</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> <tr> <td>2. FINAL DESIGN COMPLETE</td> <td style="text-align: center;"><u>Nov-99</u></td> </tr> <tr> <td>3. INITIAL/FINAL PROJECT AWARD</td> <td style="text-align: center;"><u>Jan-01/Jan-01</u></td> </tr> <tr> <td>4. CONSTRUCTION COMPLETE</td> <td style="text-align: center;"><u>Jun-02</u></td> </tr> <tr> <td>5. EQUIPMENT INSTALLATION COMPLETE</td> <td style="text-align: center;"><u>May-02</u></td> </tr> <tr> <td>6. PROVE OUT BEGINS</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> <tr> <td>7. PROVE OUT COMPLETE</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> </tbody> </table>			MONTH & YEAR	1. CONCEPT DESIGN COMPLETE	<u>Not Applicable</u>	2. FINAL DESIGN COMPLETE	<u>Nov-99</u>	3. INITIAL/FINAL PROJECT AWARD	<u>Jan-01/Jan-01</u>	4. CONSTRUCTION COMPLETE	<u>Jun-02</u>	5. EQUIPMENT INSTALLATION COMPLETE	<u>May-02</u>	6. PROVE OUT BEGINS	<u>Not Applicable</u>	7. PROVE OUT COMPLETE	<u>Not Applicable</u>
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6. PROVE OUT BEGINS	<u>Not Applicable</u>																						
7. PROVE OUT COMPLETE	<u>Not Applicable</u>																						
NARRATIVE EXPLANATION																							
<p>This project will eliminate the use of coal-fired boilers at Milan Army Ammunition Plant. This effort includes construction of a pre-fabricated building, installation of a natural gas line, purchase of two gas-fired boilers, and elimination of a storm water discharge point. Additionally, boiler operator personnel as well as annual boiler maintenance will be reduced. This project will realize a Benefit to Investment Ratio of 5.6.</p>																							

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000																
2. PROJECT TITLE/TYPE Expand Melt Capacity, Line 3A			3. END ITEM SUPPORTED MODEL 155mm M107, 155mm M795, 81mm Mortar																			
4. PROJECT NUMBER 5013395		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.				548	1. NAME <u>Iowa Army Ammunition Plant</u> 2. LOCATION <u>Middletown, Iowa</u> 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>																	
				1928	I. RELATED PROJECTS																	
					1928	<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																				
					411	J. PRINCIPAL MILESTONES																
					33																	
					34																	
					46																	
					3000	<table style="width:100%;"> <thead> <tr> <th></th> <th style="text-align: center;">MONTH & YEAR</th> </tr> </thead> <tbody> <tr> <td>1. CONCEPT DESIGN COMPLETE</td> <td style="text-align: center;"><u>May-00</u></td> </tr> <tr> <td>2. FINAL DESIGN COMPLETE</td> <td style="text-align: center;"><u>Nov-00</u></td> </tr> <tr> <td>3. INITIAL/FINAL PROJECT AWARD</td> <td style="text-align: center;"><u>Dec-01/Jan-02</u></td> </tr> <tr> <td>4. CONSTRUCTION COMPLETE</td> <td style="text-align: center;"><u>Jan-03</u></td> </tr> <tr> <td>5. EQUIPMENT INSTALLATION COMPLETE</td> <td style="text-align: center;"><u>Jan-03</u></td> </tr> <tr> <td>6. PROVE OUT BEGINS</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> <tr> <td>7. PROVE OUT COMPLETE</td> <td style="text-align: center;"><u>Not Applicable</u></td> </tr> </tbody> </table>			MONTH & YEAR	1. CONCEPT DESIGN COMPLETE	<u>May-00</u>	2. FINAL DESIGN COMPLETE	<u>Nov-00</u>	3. INITIAL/FINAL PROJECT AWARD	<u>Dec-01/Jan-02</u>	4. CONSTRUCTION COMPLETE	<u>Jan-03</u>	5. EQUIPMENT INSTALLATION COMPLETE	<u>Jan-03</u>	6. PROVE OUT BEGINS	<u>Not Applicable</u>	7. PROVE OUT COMPLETE
	MONTH & YEAR																					
1. CONCEPT DESIGN COMPLETE	<u>May-00</u>																					
2. FINAL DESIGN COMPLETE	<u>Nov-00</u>																					
3. INITIAL/FINAL PROJECT AWARD	<u>Dec-01/Jan-02</u>																					
4. CONSTRUCTION COMPLETE	<u>Jan-03</u>																					
5. EQUIPMENT INSTALLATION COMPLETE	<u>Jan-03</u>																					
6. PROVE OUT BEGINS	<u>Not Applicable</u>																					
7. PROVE OUT COMPLETE	<u>Not Applicable</u>																					
NARRATIVE EXPLANATION																						
<p>This project will construct a 5,000 square foot addition to Building 3A-05-1. Effort also provides for the purchase and installation of 12 climate controlled cooling ovens in the new building and the purchase and installation of one conditioning oven in Yard F. This project will increase production capacity of the 155mm M107 and M795 projectiles from 540 to 720 rounds per shift.</p>																						

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000
2. PROJECT TITLE/TYPE Improvements for Multi-Base Production*			3. END ITEM SUPPORTED MODEL Propellants and Explosives (Nitroglycerin and Nitrocellulose)			
4. PROJECT NUMBER 5013402		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				3524	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
2.					FY & Appn	Value (\$ mil)
3.					Facing	Start Date
SUBTOTAL EQUIPMENT COST					Compl Date	
C. EQUIPMENT INSTALLATION COST				176	Not Applicable	
D. CONTRACTOR SUPPORT COST						
E. CORPS OF ENGINEERS SUPPORT COST						
F. OTHER IN-HOUSE SUPPORT COST						
TOTAL FACILITY PROJECT COST				3700	J. PRINCIPAL MILESTONES	
G. OTHER COSTS					MONTH & YEAR	
1. FACILITY PROVE-OUT COST					1. CONCEPT DESIGN COMPLETE <u>Not Applicable</u>	
2. MILITARY CONSTRUCTION APPN.					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						
This project supports Modular Artillery Charge System (MACS) multi-base propellant requirements. This design/build project will reduce direct labor and scrap rate and increase product quality. This effort will automate Program Logic Controls (PLC) for the solvent delivery mix house, add PLC ram rate controls and temperature controlled dies to C2 press, install 4 Beken mixers and automate PLCs for process water, implement a near die face cutter with take-away conveyor, and integrate squeeze flow Rheometer into the MACS mix house. Additionally, this project enhances operator safety. Return on Investment (ROI) is .65 to 3.1 years.						

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000					
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 0015060		5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)		6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)							
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.				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	Compl Date
					1200						
				1200	J. PRINCIPAL MILESTONES			MONTH & YEAR			
					1. CONCEPT DESIGN COMPLETE _____ 2. FINAL DESIGN COMPLETE _____ 3. INITIAL/FINAL PROJECT AWARD <u>Dec 00/Apr 01</u> 4. CONSTRUCTION COMPLETE _____ 5. EQUIPMENT INSTALLATION COMPLETE <u>Aug-99</u> 6. PROVE OUT BEGINS _____ 7. PROVE OUT COMPLETE _____						
NARRATIVE EXPLANATION											
<p>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, automate geodetic systems and ballistic measurement mobile strain systems. At ATC funds will be used for platform refrigeration packages.</p>											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement			3. END ITEM SUPPORTED MODEL Artillery and Loaded Components			
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		616	918	1236	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)		369	441		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		369	441		Not Applicable	
C. EQUIPMENT INSTALLATION COST		135	472		J. PRINCIPAL MILESTONES	
D. CONTRACTOR SUPPORT COST		55	68	3	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		1175	1899	1239	3. INITIAL/FINAL PROJECT AWARD Dec-00/Dec-00	
G. OTHER COSTS					4. CONSTRUCTION COMPLETE Sep-02	
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						
Provides for the replacement of deteriorated corrugated metal roofs on 4 buildings in Area H which store various types of inert materials that play a major role in the daily operation of the plant. Effort will replace deteriorated roofing in Area B. Failure to replace roofs will allow water from rainfall to enter the building, resulting in continued clean-up of the interior equipment to avoid equipment deterioration and endangering production capabilities. Further, effort will replace the secondary water distribution system in Area B. Restored 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 2000					
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement			3. END ITEM SUPPORTED MODEL Medium Caliber, Mortar, Fuze								
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		1551	705	803	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)		838	924	260	3. TYPE (GOGO, GOCO, COCO) GOCO						
	1.				I. RELATED PROJECTS						
2.											
3.											
SUBTOTAL EQUIPMENT COST		838	924	260	Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
C. EQUIPMENT INSTALLATION COST		398	159	382	Not Applicable						
D. CONTRACTOR SUPPORT COST		118	23	59							
E. CORPS OF ENGINEERS SUPPORT COST					J. PRINCIPAL MILESTONES						
F. OTHER IN-HOUSE SUPPORT COST					MONTH & YEAR						
TOTAL FACILITY PROJECT COST		2905	1811	1504	1. CONCEPT DESIGN COMPLETE Not Applicable						
G. OTHER COSTS	1. FACILITY PROVE-OUT COST				2. FINAL DESIGN COMPLETE Nov-99						
	2. MILITARY CONSTRUCTION APPN.				3. INITIAL/FINAL PROJECT AWARD Jan-01/Jan-01						
					4. CONSTRUCTION COMPLETE Jun-02						
					5. EQUIPMENT INSTALLATION COMPLETE Jun-02						
					6. PROVE OUT BEGINS Not Applicable						
					7. PROVE OUT COMPLETE Not Applicable						
NARRATIVE EXPLANATION											
<p>This project will purchase multiple pieces of equipment to upgrade the quality of the mortar components produced at Milan Army Ammunition Plant. This will eliminate several personnel intensive operations and improve the quality sufficiently to eliminate in-process Quality Assurance personnel. This project will replace over-age transite roofs in Buildings K-204 through K-206 before extensive damage occurs which will substantially increase the cost of eventual replacement. Further, this project will reroof the inert storage buildings in order to correct unsafe conditions and prevent water damage to materials. The shingles in these areas have lasted approximately 15 years beyond their expected life.</p>											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000					
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement			3. END ITEM SUPPORTED MODEL Propellants and Explosives (Nitroglycerin and Nitrocullulose)								
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						
					1. NAME Radford Army Ammunition Plant						
					2. LOCATION Radford, Virginia						
A. CONSTRUCTION COST		952	917	688	3. TYPE (GOGO, GOCO, COCO) GOCO						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)		1071	446	711	I. RELATED PROJECTS						
1.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
2.					Not Applicable						
3.											
SUBTOTAL EQUIPMENT COST		1071	446	711							
C. EQUIPMENT INSTALLATION COST			1421	297	1133						
D. CONTRACTOR SUPPORT COST			71	41	74						
E. CORPS OF ENGINEERS SUPPORT COST				46	41						
F. OTHER IN-HOUSE SUPPORT COST											
TOTAL FACILITY PROJECT COST			3515	1747	2647	J. PRINCIPAL MILESTONES					
G. OTHER COSTS						MONTH & YEAR					
1. FACILITY PROVE-OUT COST						1. CONCEPT DESIGN COMPLETE Not Applicable					
2. MILITARY CONSTRUCTION APPN.						2. FINAL DESIGN COMPLETE Jan-99					
						3. INITIAL/FINAL PROJECT AWARD Dec-00/Mar-01					
						4. CONSTRUCTION COMPLETE Not Applicable					
						5. EQUIPMENT INSTALLATION COMPLETE Jul-02					
						6. PROVE OUT BEGINS Not Applicable					
						7. PROVE OUT COMPLETE Not Applicable					
NARRATIVE EXPLANATION											
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. 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 Building 3522 which is used to chill water for production equipment. The current refrigerant used in this chiller does not comply with environmental regulations. This project will also replace underground waterline piping in Buildings 700 to 1019. These waterlines provide process water and fire protection, and replacement will eliminate leaks, breaks, and related production shutdowns.											

INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)						1. DATE February 2000					
2. PROJECT TITLE/TYPE Production Support and Equipment Replacement			3. END ITEM SUPPORTED MODEL 120mm Tank, 105/155mm Artillery, Mines/Countermines, 81mm Mortar								
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						
					1. NAME <u>Iowa Army Ammunition Plant</u> 2. LOCATION <u>Middletown, Iowa</u> 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>						
A. CONSTRUCTION COST		1261	332	1294	I. RELATED PROJECTS						
B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)		560	1538								
1.					Project Number	Title	FY & Appn	Value (\$ mil)	Facing	Start Date	Compl Date
2.											
3.											
SUBTOTAL EQUIPMENT COST		560	1538								
C. EQUIPMENT INSTALLATION COST			180	510							
D. CONTRACTOR SUPPORT COST			60	42	32						
E. CORPS OF ENGINEERS SUPPORT COST			50		68						
F. OTHER IN-HOUSE SUPPORT COST											
TOTAL FACILITY PROJECT COST			2111	2422	1394	J. PRINCIPAL MILESTONES			MONTH & YEAR		
G. OTHER COSTS						1. CONCEPT DESIGN COMPLETE			<u>Apr-98</u>		
1. FACILITY PROVE-OUT COST						2. FINAL DESIGN COMPLETE			<u>Jan-99</u>		
2. MILITARY CONSTRUCTION APPN.						3. INITIAL/FINAL PROJECT AWARD			<u>Dec-00/Jan-01</u>		
						4. CONSTRUCTION COMPLETE			<u>Oct-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											
Funds will be used to replace asbestos insulation with a nonasbestos product, eliminating health hazards; the heating, ventilation, and air conditioning (HVAC) systems; and roofs in older buildings. Currently, extensive maintenance is required, including recharging the chillers with Freon, which is an Ozone Depleting Chemical (ODC). Further, replacing the roof will eliminate asbestos roof panels, improve ventilation, and improve insulating value. These structures are currently used for the production and mechanical shops.											

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	517.8	21.5	12.6	20.1	3.5	3.2	6.7	5.9	6.0	6.2	0.0	603.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	517.8	21.5	12.6	20.1	3.5	3.2	6.7	5.9	6.0	6.2	0.0	603.5
Initial Spares												
Total Proc Cost	517.8	21.5	12.6	20.1	3.5	3.2	6.7	5.9	6.0	6.2	0.0	603.5
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 01</u>
5XX4050 INDUSTRIAL OPERATIONS COMMAND (IOC)	3.2
LAYAWAY AND/OR REDISTRIBUTION OF GOVERNMENT-OWNED EQUIPMENT	(2.0) DECONTAMINATION (1.0) LAYAWAY (0.2) MODIFIED CARETAKER
TOTAL IOC LAYAWAY OF INDUSTRIAL FACILITIES	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 2000

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 01</u>
Iowa Army Ammunition Plant (AAP), Milan AAP, Lone Star AAP, Pine Bluff Arsenal	Retain (RT) - Layaway (Lwy) and Downsize (D) Minor Efforts less than \$75K	8000	.238
Iowa AAP Middletown, IA	DS - Transition Line 9 to Modified Caretaker	8029	.240
Iowa AAP Middletown, IA	RT - Lwy. Remote Anti-Armor Artillery Munition (RAAM), Phase II	8113	.268
Iowa AAP Middletown, IA	RT - Lwy M913, 105mm Artillery Projectile, Load, Assemble, and Pack (LAP)	8904	.142
Iowa AAP Middletown, IA	RT - Lwy 120mm Projectile LAP	8911	.127
Sunflower AAP DeSoto, KS	DS - Resource Conservation and Recovery Act (RCRA) Closure, Hazardous Storage and Land	8609	1.000
Sunflower AAP DeSoto, KS	DS - Disposal of Plant	8831C	1.200
	TOTAL		3.215

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	353.4	22.4	15.1	17.7	12.9	12.3	10.7	9.6	9.8	10.0	0.0	473.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	353.4	22.4	15.1	17.7	12.9	12.3	10.7	9.6	9.8	10.0	0.0	473.9
Initial Spares												
Total Proc Cost	353.4	22.4	15.1	17.7	12.9	12.3	10.7	9.6	9.8	10.0	0.0	473.9
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:

	<u>FY 01</u>
(1) Inactive Production Lines/Areas at Active Plants	\$5.7M
(2) Inactive Production Lines/Areas at Inactive Plants	\$6.6M
TOTAL	\$12.3M

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 2000		
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
INACTIVE LINES AT ACTIVE PLANTS													
Crane Army Ammunition Activity (AAA)					100			78			79		
Holston Army Ammunition Plant (AAP)					2326			1756			1705		
Iowa AAP					356			476			320		
Lake City AAP					110								
Lone Star AAP					401			608			270		
McAlester AAP					427			434			442		
Milan AAP					157			241			166		
Pine Bluff Arsenal					743			700			700		
Radford AAP					1520			1729			1500		
Seneca/Hawthorne Army Depot								33			528		
SUBTOTAL					6140			6055			5710		
INACTIVE PLANTS													
Badger AAP					760			539			750		
Cornhusker AAP					240			50			50		
Indiana AAP					2188			400			300		
Joliet AAP					60			84			86		
Longhorn AAP					512			250			422		
Louisiana AAP					1064			1000			800		
Mississippi AAP					1699			800					
Ravenna AAP					301			300			150		
Riverbank AAP					1362			956			831		
Scranton AAP					228			300			250		
Sunflower AAP					600			600			737		
Twin Cities AAP					158			288			210		
Volunteer AAP					2430			1319			1971		
SUBTOTAL					11602			6886			6557		
INACTIVE LINES AT CONTRACTOR PLANTS													
Alliant Techsystems, Incorporated													
AMRON Corporation (Antigo/Waukesha)													
Dayron					4								
Intercontinental Manufacturing Company													
SUBTOTAL					4								
TOTAL					17746			12941			12267		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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	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	355.4	95.5	89.6	82.3	85.6	84.8	81.9	105.5	116.9	123.1	0.0	1220.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	355.4	95.5	89.6	82.3	85.6	84.8	81.9	105.5	116.9	123.1	0.0	1220.6
Initial Spares												
Total Proc Cost	355.4	95.5	89.6	82.3	85.6	84.8	81.9	105.5	116.9	123.1	0.0	1220.6
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 99, the conventional ammunition demilitarization account contained over 493,000 short tons of ammunition. The demilitarization stockpile will remain significant, with the generation of ammunition items into the account matching or exceeding demilitarization accomplishments. In Fiscal Year 1999, demilitarization accomplishments totaled 88,738 short tons, however, an additional 107,908 short tons were generated. Future generations of ammunition into the demilitarization account are forecasted to approach 433,000 short tons over the next 6 years. Fiscal Year 2000 accomplishments are projected to be approximately 63,000 short tons.

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, are malpositioned for the end state assignments (depot tiering), older ammunition stocks are potentially unstable and require more funding for safety demilitarized actions, require surveillance operations to perform safety-in-storage inspections versus periodic inspections, and could present the Army with a large storage liability if the environmental munitions rule becomes more restrictive and these stocks are declared a hazardous waste prior to their movement for final disposition.

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 for all Services, the Army must demonstrate a strong

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 2000		
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							1539	934		5	3	
RIOT CONTROL	CR				1750	198							
SMOKES,HC,COLORS,FS	CS				312	64							
DEP URANIUM/TUNGSTEN CARBIDE	DU				619	800		409	425		1146	983	
INCENDIARY/THERMITE	FI										337	1221	
PYROTECHNICS/ILLUMINATION/NON FRAG	FP							1009	532		2830	2625	
HE COMPONENTS/DEVICES	HA				62	74		1768	1353		78	446	
HE BOMBS	HB				2464	2927		138	592		6055	6393	
HE CARTRIDGES	HC				1382	3806		4672	5872		7197	11658	
HE EXPLOSIVE "D"	HD												
BULK HIGH EXPLOSIVES	HE												
HE GRENADES	HG				96	99							
HE DEPTH CHARGES	HH				2755	1854		1429	3000				
HE ICM/CBU AND SUBMUNITIONS WTV	HI				5578	19733		6155	14635		4662	13935	
HE MISSILES	HM				15	13							
HE PROJECTILES AND WARHEADS	HP				1241	2799		737	2141		5391	7613	
HE ROCKETS	HR				1555	2121						1	
TORPEDOES	HT												
DEMOLITION MATERIAL	HX				81	81					8	53	
HE LAND MINES	HZ												
INERT	I				135	303		438	2407		3344	8900	
LARGE ROCKET MOTORS	LR3										282	675	
BULK PROP	PB				668	526		1085	3351		2416	2814	
PROPELLANT CHARGES AND INCREMENT	PC				2991	4123		7519	11176		17591	19275	
PROPELLANT MUNITIONS/COMPONENTS	PD				2238	2954		984	883		5787	11673	
SMALL ARMS AMMO THRU 20MM	SA				91	3309					2350	1435	
INCINERABLE MUNITIONS	SC				369	296					13	58	
FUZES	SF				165	250		297	230		4109	3099	
MULTIPLE FAMILY	MU				51314	26612		48805	27459		13058	4000	
NO FAMILY	N				2400	1725							
OCONUS DEMIL	OC				4000	4000		8630	4000		8140	4000	
TOTAL					82281	78667		85614	78990		84799	100860	

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

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 Year	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	159.4	31.9	24.9	9.8	26.4	4.7	4.7	4.6	4.7	4.8	0.0	275.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	159.4	31.9	24.9	9.8	26.4	4.7	4.7	4.6	4.7	4.8	0.0	275.9
Initial Spares												
Total Proc Cost	159.4	31.9	24.9	9.8	26.4	4.7	4.7	4.6	4.7	4.8	0.0	275.9
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, providing opportunities for small businesses, retaining critical skills, and sustaining economic development.

JUSTIFICATION: The Army's ammunition industrial manufacturing base is unique. It involves hazardous/explosive material processing and handling, represents a large investment, and requires critical skills. In 1990 the peacetime and replenishment concept of attracting Government (defense and non-defense) and commercial subcontractors to GOCO ammunition facilities met with little success. The ARMS program became the catalyst to commercialize active and reserve ammunition facilities meeting these challenges. ARMS represents a tool that allows the Army to manage the ammunition infrastructure as a commercial business - improves process/product efficiencies by reducing overhead; enhances competition for ammunition products and ammunition facility management. This management concept has allowed ammunition producers to apply overhead costs across multiple contracts and become competitive in both government and commercial production within the same facility. Foremost, ARMS becomes a critical tool to reshape the base supporting the need to transition the Army to an agile/responsive force structure while optimizing an existing industrial assets.

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 2000		
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					8926			25325			3648		
Environmental Baselines					250								
Loan Guarantees								893			871		
Administrative Support					643			200			200		
TOTAL					9819			26418			4719		
<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 its 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>													
					9819			26418			4719		